



**ECDC CORPORATE**

# Consolidated Annual Activity Report

# 2020

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## Abbreviations

AMR	Antimicrobial resistance
ARHAI	Antimicrobial Resistance and Healthcare-Associated Infections (ECDC Disease Programme)
ASPHER	Association of Schools of Public Health in the European Region
CCB	Coordinating Competent Body
CDC	Centres for Disease Control and Prevention
CDTR	Communicable disease threats reports
CHAFEA	Consumers, Health, Agriculture and Food Executive Agency
COVID-19	Disease associated with the SARS-CoV-2 virus
CPDP	ECDC Continuous Professional Development Programme
CRM	Customer Relationship Management
DIR	Director's Office (ECDC Unit)
DPO	Data protection officer
DPR	Disease Programmes (ECDC Unit)
DRC	Democratic Republic of the Congo
DTS	Digital Transformation Services (ECDC Unit)
EA	Enterprise architecture
EEA	European Environment Agency
EAAD	European Antibiotic Awareness Day
EARS-Net	European Antimicrobial Resistance Surveillance Network
EEA/EFTA	European Economic Area/European Free Trade Association
EEAS	European External Action Service
ELITE	European Listeria Typing Exercise
ELDSNet	European Legionnaires' disease Surveillance Network
EFSA	European Food Safety Authority
EMA	European Medicines Agency
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
ENP	European Neighbourhood Policy
ENVI	Committee on the Environment, Public Health and Food Safety of the European Parliament
EOC	Emergency Operations Centre
EPIET	Intervention epidemiology path of the ECDC fellowship programme
EPIS	Epidemic Intelligence Information System
EQA	External quality assessment
ERLI-Net	European Reference Laboratory Network for Human Influenza
ESAC-Net	European Surveillance of Antimicrobial Consumption Network
ESCAIDE	European Scientific Conference on Applied Infectious Disease Epidemiology
EU-ANSA	EU Agencies Network on Scientific Advice
EUCAST	European Committee on Antimicrobial Susceptibility Testing
EU-JAMRAI	EU joint action on AMR and healthcare-associated infections
EUPHEM	Public health microbiology path of the ECDC Fellowship Programme
EFVED	Emerging Food and Vector-Borne Diseases (ECDC Disease Programme)

# Management Board analysis and assessment

The Management Board has assessed the Consolidated Annual Activity Report for the financial year 2020. The Management Board appreciates the results achieved by the Centre during the year when the European Union and the entire world was in the middle of the COVID-19 pandemic and notes in particular the following:

- ECDC started working in a Public Health Event (PHE) mode in January 2020, which meant that a large number of technical experts were removed from their daily tasks to work for the PHE roster. With the increased work related to COVID-19 response, the Centre had to cancel or postpone 35% of the initially planned 2020 outputs, but instead achieved 90% of the outputs of the additional COVID-19 work programme approved by the Management Board in May 2020.
- At the end of the year 2020, ECDC employed 271 staff members. Despite the continuous PHE mode of working, the Centre's budget execution in terms of commitment appropriations at year-end reached 96.77%, equivalent to EUR 60.4 million. The budget execution in terms of payment appropriations at year-end reached 75.26%, equivalent to EUR 47 million.
- In 2020, the Board finalised its conclusions and recommendations related to the third external evaluation of ECDC. These recommendations reflected the first lessons learned from the COVID-19 pandemic, in particular recommendations related to the mandate of ECDC, where the Board requested the Commission develop proposals on the way forward.
- The Board also approved the ECDC Strategy 2021-2027, which takes into consideration the recommendations of the third external evaluation of the Centre and will provide the focus areas for ECDC work for the years ahead. To enhance the implementation of the ECDC Strategy, the Management Board approved the Strategy Implementation Roadmap and the first set of related Strategic Key Performance Indicators to be followed biannually.
- The external strategic and performance review of the ECDC response to COVID-19 was carried out by the Centre, and the main findings were discussed by the Management Board in November 2020. The Board considers this an important piece of work to improve the way of working during the ongoing pandemic, although more comprehensive changes might be possible by the end of 2021 or beyond. The Centre presented regularly to the Management Board the outcomes of the several surveys carried out among ECDC staff during the pandemic together with the measures put in place to mitigate the impact of e.g. remote working.
- The Centre's list of COVID-19 related outputs is impressive: 24 rapid risk assessments related to COVID-19 and responses to more than 250 external requests: 159 of these came from the European Commission and the European Parliament, and 100 from the Member States, the rest was a mixture from other EU Agencies, the Health Security Committee, and other stakeholders. Furthermore, ECDC produced 59 technical reports, 13 technical guidance documents, and 14 publications in peer-reviewed journals. This all on the top of the daily epidemiological reports, and weekly surveillance reports and country reviews.
- During the crisis, the communication activities of the Centre increased substantially, and hence the visibility. The traffic on ECDC social media accounts and website increased substantially, as well as downloads of specific outputs, such as Rapid Risk Assessments. In April 2020 the European Vaccination Information Portal (EVIP), developed in collaboration with the European Medicines Agency (EMA) and the Directorate-General for Health and Food Safety was launched. Between September and December 2020, EVIP received 61 382 page views. Traffic increased significantly since December, and at the time of preparing this report the portal has had more than 200 000 page views.
- The Centre published 75% of the 2019 routine EU/EEA surveillance data in the Surveillance Atlas of Infectious Diseases within three months of closing the data collection, and published the Annual Epidemiological Report (AER) for 32 diseases and health topics, based on data from 2017 to 2019.

The Annual Report 2020 is the first year for ECDC to follow the revised common template for all EU agencies, agreed upon in 2019. There are some new chapters (e.g. *Strategy for efficiency gains* and *Environment management*) and some chapters, like this, have moved to a different place in the document.

In conclusion, the Management Board welcomes the Consolidated Annual Activity Report 2020, which provides an excellent overview of the Centre's achievements as set out in the Single Programming Document (SPD) 2020-2022, adopted by the Management Board.



## Foreword by the Chair of the Management Board

I am delighted to introduce the Consolidated Annual Activity Report 2020 summarising the work ECDC carried out last year, the one we will all remember as the start of the COVID-19 pandemic. However, in 2020, the ECDC Management Board continued focusing on how ECDC delivered within its mandate, amended work plans, and allocated resources to non-pandemic issues too.

In 2020, one big achievement from the perspective of the Management Board was the finalisation of the Board's conclusions and recommendations related to the third external evaluation of ECDC. Since these recommendations were approved in the context of the COVID-19 pandemic and reflected the early lessons learned from it, the Management Board expressed its expectation to the Commission to present a proposal on amending ECDC's mandate.

Another achievement was the approval of the ECDC Strategy 2021-2027 in June, as the Board considered it essential to ensure that the relevant elements from the third external evaluation would be taken on board. The Board is confident that the approved Strategy will guide the Centre to focus its efforts on the selected priority areas. This will be further facilitated by the Strategy Implementation Roadmap and related Key Performance Indicators, approved by the Management Board in November.

As the focus of ECDC work in 2020 was to support EU Member States and the Commission on their response to the COVID-19 pandemic, the Management Board met five times to discuss and approve an amended SPD 2020 and related budget.

I am impressed that the Centre was also able to produce non-COVID-19 related outputs (n=102), despite being in Public Health Emergency (PHE) mode since January 2020 and moving most of the technical experts away from their everyday work towards working on the pandemic. Non-COVID-19 related outputs included

- Thirty-two annual epidemiological reports and three surveillance reports;
- Two rapid risk assessments and one rapid outbreak assessment;
- Two systematic reviews and one technical guidance;
- Ten technical reports and 51 publications in peer-reviewed journals.

During the summer of 2020 ECDC performed an external strategic and performance review on its response to the COVID-19 pandemic which was an important undertaking. The Management Board discussed the recommendations in its November meeting, and trusts that ECDC will further enhance its way of working in future pandemics as it has done during this one.

During the COVID-19 pandemic, the value of ECDC as a reliable provider of data, risk assessments, and options for actions has been widely acknowledged. However, the early lessons learned suggest that this might not be enough and therefore the European Commission put forward a legal proposal to strengthen the mandate of ECDC to better contribute to the preparedness and response support in the EU and beyond. At the time of writing, discussions on the legal proposal are still ongoing in the Council and the Parliament. The entire ECDC Management Board will continue to follow these discussions to see how the strengthened ECDC will take shape.

Dr Anni-Riitta Virolainen-Julkunen

Chair of the ECDC Management Board

25 February 2021





## Introduction by the Director

The evolution of the COVID-19 pandemic will be the main memory of the year 2020. On the one hand it became clear that the level of preparedness at the country level was insufficient to deal with the spread of the new virus, on the other hand the health community had a steep learning curve regarding the characteristics of the virus and the disease it caused. Furthermore, never has the international collaboration between the public and private sector managed to bring such a variety of vaccine candidates through clinical studies to the market in such a short time.

ECDC moved to Public Health Event (PHE)-mode in January 2020 to respond to the requests for scientific and technical support from the Commission and the Member States. At the highest peaks of the pandemic in 2020, most of the Centre's scientific staff was involved in the first or second line response. This meant that large parts of the planned work for 2020 had to be postponed or cancelled, and I thank the ECDC Management Board for their flexibility in approving amended work plans and related budgets several times throughout the year.

Due to the COVID-19 pandemic, the value of decentralised EU Agencies was clearly demonstrated, as they can bring technical expertise from all sectors of society together. In 2020 ECDC worked together with several decentralised EU Agencies. For example, collaborations took place to provide public health information for the technical guidance on COVID-19 infection control for air-travel, trains, or cruise ships. ECDC continued its close collaboration with the European Medicines Agency (EMA) throughout 2020 related to developing the joint EU level monitoring system for COVID-19 vaccine effectiveness and adverse effects

In January 2020, ECDC's organisational structure changed to support the implementation of the ECDC Strategy 2021-2027. However, as the organisation moved to response mode, the functionality of the new organisational structure was not realised. During the year, as the pandemic response continued, further changes to the organisational structure were done by e.g. establishing a new disease programme for Coronavirus and Influenza.

As it became clear that pandemic would stay with us for a long time, an external strategic and performance review on ECDC COVID-19 response was carried out to get evidence-based knowledge on our capacity to function and provide meaningful outputs. This review revealed areas in which the Centre has to improve its functioning for more effective and efficient response in a future public health crisis while maintaining its core functions and essential outputs.

The lessons learned from the pandemic have demonstrated the need to pursue further, the digitalisation of the EU surveillance system, which would enable more timely monitoring of the communicable disease epidemiology with more machine-led collection of data. ECDC will also seek to find better ways to interact with EU Member States to truly understand the gaps in their communicable disease prevention and control systems to better prevent, detect, assess, and respond to future threats.

Looking back at this extraordinary year, I would like to thank the staff at ECDC for their unwavering dedication to their work, the experts in Member States for their willingness to contribute, and colleagues from our EU and international partners for their exceptional collaboration.

Andrea AMMON

ECDC Director

3 March 2021

# Executive summary

## Agency in brief

### Legal and procedural background

This document is based on Regulation (EC) No 851/2004 of the European Parliament and of the Council of 21 April 2004, Article 14.5(d): The Board shall adopt the Consolidated Annual Activity Report on the Centre's activities for the past year by 30 March. Following its forty-eighth meeting on 24 March 2021, the Management Board approved the final version of the Annual Activity Report 2020.

### Mission statement

The Centre's mission is laid down in Article 3 of the Founding Regulation<sup>i</sup>, which states that:

'The mission of the Centre shall be to identify, assess and communicate current and emerging threats to human health from communicable diseases. In the case of other outbreaks of illness of unknown origin, which may spread within or to the Community, the Centre shall act on its own initiative until the source of the outbreak is known. In the case of an outbreak which clearly is not caused by a communicable disease, the Centre shall act only in cooperation with the competent authority, upon request from that authority.'

The Centre's mandate can be derived from Article 168 of the Treaty on the Functioning of the European Union (EU), with an overarching principle of ensuring a high level of human health protection in the definition and implementation of all Union policies and activities.

Key tasks of ECDC include:

- Operating dedicated surveillance networks;
- Providing scientific opinions and promoting and initiating studies;
- Operating the Early Warning and Response System;
- Providing scientific and technical assistance and training;
- Identifying emerging health threats;
- Collecting and analysing data;
- Communicating on its activities to key audiences.

### ECDC vision

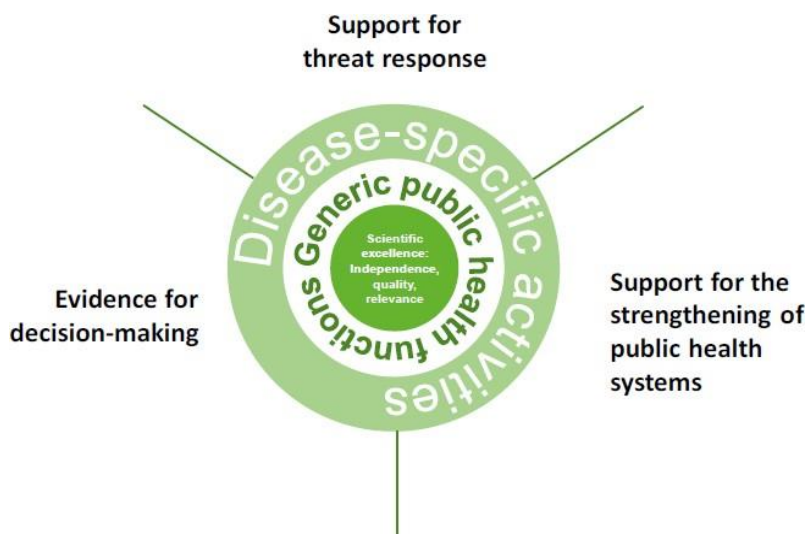
ECDC is a strong and trusted partner who enables and supports Member States and the European Commission in protecting everyone in the EU equitably from communicable diseases.

### Strategic work areas

- **Providing evidence for effective and efficient decision making:** We support efficient public health decision-making by providing timely, accurate and relevant information.
- **Support the strengthening of public health systems:** We strengthen European capacities and capabilities to effectively prevent and control communicable diseases.
- **Supporting response to threats:** We support effective health threats detection, assessment and control.

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<sup>i</sup> Regulation (EC) No 851/2004 of the European Parliament and of the Council of 21 April 2004 establishing a European Centre for Disease Prevention and Control, Official Journal of the European Union. 2004; L 142:1–11.

**Figure 1. ECDC work areas**

## How we work

- Our work is founded on scientific excellence: independence, quality and relevance;
- We deliver through disease-specific activities, and through generic public health functions;
- We carry out our work in partnership with our stakeholders;
- Our work is supported by efficient administrative and IT tools and services;
- The way we work is inspired by our core values: service orientation, quality-based and 'one ECDC'.

## Organisational structure

In January 2020, the new ECDC organisational structure<sup>i</sup> came into force, as the outcome of the 'Next Generation ECDC' initiative undertaken in 2018 with the aim of supporting the smooth implementation of the ECDC strategy 2021-2027 as well as further enhancing the overall performance of the Agency.

Under the new structure, ECDC will no longer operate as a formal matrix organisation. Nonetheless, ECDC's work inherently requires collaboration between the different organisational structures. The Disease Programmes (DPR) Unit delivers the disease-specific part of empowering ECDC's partners to drive public health policy and practice. The major part of ECDC's outputs come from this Unit, guided and supported by the Scientific Methods and Standards (SMS) and Public Health Functions (PHF) Units. The Scientific Methods and Standards Unit leads the processes for strengthening the scientific excellence and the dissemination of knowledge within the organisation and to partners, including the quality assurance of ECDC's scientific work and the organisation of the ESCAIDE conference. The Public Health Functions Unit is responsible for the delivery of ECDC's statutory public health functions surveillance, training and emergency preparedness and response support and works closely with the disease programmes, providing the data and systems required for the respective disease-specific outputs.

The Director's Office, the Resource Management Services (RMS) and the Digital Transformation Services (DTS) Units support the achievement of the objectives of the abovementioned operational units. The Director's Office oversees the implementation of the Centre's strategy and coordinates the Centre's strategic relationships with its governing bodies and other external stakeholders in and outside the EU. The Resource Management Services Unit ensures the efficient management of the human and financial resources of the Centre, as well as of its premises. It provides high quality procurement, legal, meetings organisation and travel arrangement services to the organisation. The Digital Transformation Services Unit delivers advice and studies, software products, development expertise, front-end services, application hosting and enterprise infrastructure services in support of ECDC's core missions and administration. The reorganisation of the DTS Unit in 2020 completed the implementation of the IT2021 Programme, whereby ECDC changed from a delivery model where software was developed in-house to an outsourced delivery model.

<sup>i</sup> See Annex III. Organisational chart, of this document.

The structure of this report reflects the structure of the ECDC Single Programming Document 2020-2022 and follows the final year of the implementation of the ECDC strategic multi-annual programme 2014-2020<sup>i</sup>. The public health functions and disease programme achievements are presented in accordance with the ECDC strategic multi-annual programme 2014–2020 structure.

## 2020 in brief

### Work on the COVID-19 pandemic

The COVID-19 pandemic is the most extensive public health event (PHE) ECDC has had to respond to since the agency became operational in 2005. In 2020, supporting the EU COVID-19 response became the dominant activity of the Agency, consuming most of the Centre's time and resources. ECDC started operating at PHE level 2, acute phase, on 31 January 2020 and continues to operate in this phase at the time of writing.

The Centre had to cancel or postpone 35% of the outputs initially planned for 2020, however it achieved 90% of the outputs from the additional COVID-19 work programme approved by the Management Board in May 2020 (for details see Annex I *Core business statistics 2020*).

ECDC worked towards establishing fit-for-purpose surveillance in countries and at the EU level to be able to optimally tackle the COVID-19 pandemic and prepare for routine surveillance of the disease. It provided high-quality, up-to-date, and consolidated evidence to Member States and the Commission through planned outputs, or in response to stakeholders' requests. The Centre assisted the European Commission and Member States with laboratory-related support and expanded testing, contributed to strengthening Member States preparedness by establishing operational indicators and supported the assessment of health services surge capacity.

Alongside the planned work, the Public Health Event roster, in which over 100 ECDC staff members were directly involved, produced 24 COVID-19 related risk assessments and responded to an exceptionally high number of requests from stakeholders (European Commission, Member States, and the media). The number of downloads of rapid risk assessments increased by 1 086% compared with 2019. The ECDC website saw an unprecedented amount of traffic in 2020. Traffic peaked in March, when more than eight million page-views were recorded in one month, nearly as many page views as the website had recorded in total over the previous eight years. In September, in response to a request by the Commissioner for Health and Food Safety, ECDC started delivering weekly COVID-19 policy briefs.

In October 2020, in support of the Council Recommendation on a coordinated approach to the restriction of free movement in response to the COVID-19 pandemic<sup>ii</sup>, ECDC developed a weekly publication of an EU Member State map, showing the risk levels across the regions in Europe using a traffic light system.

Towards the end of 2020, ECDC provided effective support to vaccination strategies-related work at EU and Member State level. At the same time, the Centre actively contributed to the assessment of the recent emergence of COVID-19 variants of potential concern.

### ECDC public health functions: main achievements

Despite the singular challenge that the COVID-19 pandemic represented, ECDC managed to produce most of its regular outputs:

- 75% of the 2019 routine EU/EEA surveillance data in the Surveillance Atlas of Infectious Diseases was published within three months of closing the data collection;
- Regular epidemiological updates for threats under mid- (one to six months) and long-term monitoring (>six months) were published on the ECDC website through the weekly Communicable Diseases Threats Report (CDTR). Additionally, the Annual Epidemiological Report (AER) for 32 diseases and health topics, based on data from 2017 to 2019, was published;
- The Centre continued to offer whole genome sequencing services to Member States that do not yet have the capacity or resources to support the investigation of multinational outbreaks. This proved to be particularly useful in 2020, when sequencing services for SARS-CoV-2 were offered and used by Member States.

<sup>i</sup> ECDC Strategic multi-annual programme 2014-2020 available from: <https://www.ecdc.europa.eu/en/publications-data/ecdc-strategic-multi-annual-programme-2014-2020>

<sup>ii</sup> Document available from [https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/travel-during-coronavirus-pandemic/common-approach-travel-measures-eu\\_en](https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/travel-during-coronavirus-pandemic/common-approach-travel-measures-eu_en)

In the area of **surveillance**, the Centre launched its Geoportal and further developed new surveillance systems, which are scheduled to go live in 2021: the surveillance data warehouse; the tool for event-based surveillance; and the surveillance portal called EpiPulse that will allow ECDC and Member States users to perform all surveillance operations from one single entry point. The reengineering of the surveillance systems (SSR project) is planned to be finalised in 2022.

Under the **epidemic intelligence** area of work, ECDC launched EpiTweetr, a new tool to detect public health signals through the real-time analysis of the activity on Twitter. This tool covers more than 60 diseases, including COVID-19.

Throughout 2020, ECDC remained committed to the production of independent and evidence-based **scientific advice**. The Centre published 212 scientific outputs, including 85 technical reports/guidance documents and 65 peer-reviewed articles in scientific journals. ECDC also provided rapid scientific advice to the European Commission and to Member States to a level never experienced before, with more than 250 requests addressed.

Due to the pandemic, the 2020 ESCAIDE conference was held as an online event for the first time on 24-27 November 2020. A key theme at the conference was COVID-19.

In the areas of **preparedness and response**, ECDC continued to provide technical support to the European Commission on the implementation of Article 4 of Decision 1082/2013/EU on serious cross-border threats to health, by being part of a task force to revise the reporting template for the triennial survey on the levels of national preparedness. In addition, a report on community engagement for public health events caused by communicable disease threats in EU/EEA Member States was published after extensive work on case studies in the previous years. ECDC also started working on the development of indicators to monitor public health emergency preparedness.

The new version of the EU Early Warning and Response System (EWRS) continued to operate successfully under a significant increase in the number of notifications, postings, and exchanged documents. ECDC is a member of the steering committee of the Global Outbreak Alert and Response network (GOARN) until 2022 and contributed in 2020 to developing a mechanism for the monitoring and evaluation of GOARN activities.

The **public health training** activities of ECDC adapted quickly to the COVID-19 pandemic. Cohort 2020 of the Fellowship programme started as planned. After the module of initial management and communication conducted in a hybrid format in February, all modules were transformed into online activities, including the Introductory Course of Cohort 2020. Online consultations with the National Focal Points for Training and the Training Sites Forum about the future Fellowship Programme after the 2019 external evaluation guided the definition of the concept and roadmap for improvements that will also involve simplification of administrative processes. On the 25th anniversary of EPIET, its relevance was more evident than ever.

ECDC continued to provide scientific leadership for MediPIET, the Mediterranean and Black Sea field epidemiology training programme network, with Cohort three under training. In 2020, the transition to a new phase started, based on the signature of an agreement between ECDC and DG-NEAR (European Commission), to train two new Cohorts during the period 2021-2024.

The Centre's continuous professional development offering targeting mid-career and senior public health professionals focused on instructor-led activities in a virtual format, as well as e-learning (including micro-learning), which were attended by participants from almost all EU/EEA countries.

The **international relations** area continued the collaboration with Western Balkan countries and Turkey through the ECDC-IPA6 action 'Preparatory measures for the participation of the Western Balkans and Turkey in the ECDC with special focus on One-Health approach against AMR, 2020 – 2022'. In March 2020, the European Commission Directorate-General for Neighbourhood and Enlargement Negotiations and ECDC signed an agreement for the implementation of the new EU Initiative on Health Security. This aims to provide tailor-made support to strengthen public health systems' preparedness and response capacities of the European Union candidate and potential candidate countries and the European Neighbourhood Policy (ENP) partner countries, and improve health security in the European neighbourhood. The implementation of the initiative started by organising a kick-off meeting in October and launching the assessment process of partner countries' preparedness and response capacities.

2020 marked a significant milestone in the development of the ECDC and Africa CDC partnership over the last couple of years – a Contribution Agreement 'EU for health security in Africa: ECDC for Africa CDC' with the Directorate-General for International Cooperation and Development (DG DEVCO) was signed. ECDC also continued close collaboration with other Centres for Disease Control (CDCs) across the globe. The network of major CDCs, established in 2019, was chaired by ECDC and met on five occasions throughout 2020.

ECDC continued its close collaboration with the WHO Regional Office for Europe. The technical and strategic level contacts intensified in 2020 in response to the COVID-19 pandemic.

In the area of **coordinated country support**, the work focused on the development of a methodology to identify vulnerabilities and needs in Member States, and on the establishment of a corporate approach to planning and conducting country visits.

In 2020 ECDC's **communication** activities and visibility increased substantially. The Centre's social media accounts and website saw an unprecedented increase in traffic. In April 2020, the European Vaccination Information Portal (EVIP) was launched. The portal was developed in close collaboration with the Directorate-General for Health and Food Safety and the European Medicines Agency (EMA) in the context of the 2018 Council Recommendation on strengthened cooperation against vaccine-preventable diseases. In 2020, ECDC also intensified its work with health journalists. In close cooperation with the European Commission, the Health Security Committee and the WHO Regional Office for Europe, the Centre provided EU-wide communication response to public health issues.

The **Eurosurveillance** journal remained an attractive outlet for public health experts and scientists, as reflected by the number and quality of submissions. In 2020, the total number of submissions was three times higher than in previous years. *Eurosurveillance* continued being ranked as one of the top journals in its field: sixth among infectious disease journals and in the top 25 percent in four categories of the SCImago journal rank. The journal impact factor reached 6.4.

## ECDC disease work areas: main achievements

**Antimicrobial resistance and healthcare-associated infections (AMR and HAI).** In 2020, antimicrobial resistance remained a challenge for the EU/EEA. While antimicrobial consumption overall continued to slowly decrease, there were still large variations between countries, both in the community and the hospital sector, and antimicrobial consumption still increased in some countries. ECDC published its updates of surveillance data on AMR and antimicrobial consumption, continued to contribute to the Transatlantic Taskforce on Antimicrobial Resistance (TATFAR) in the field of AMR and to the EU joint action on AMR and healthcare-associated infections (EU-JAMRAI). On 18 November, in conjunction with WHO's World Antimicrobial Awareness Week, ECDC organised the 13th European Antibiotic Awareness Day as a digital campaign with the theme 'In times of COVID-19, don't give up on antimicrobial resistance (AMR) and stay united to preserve antimicrobials'.

**Vector-borne diseases.** ECDC continued publishing updated distribution maps of European disease vectors on its website in 2020. Data for the maps were collected through the VectorNet project, jointly funded by ECDC and EFSA. From June to December, ECDC published weekly West Nile Virus (WNV) epidemiological updates, including the geographical distribution of human cases in EU/EEA and EU neighbouring countries. Following the European Parliament resolution on Lyme disease adopted in November 2018 and the first notifications of Lyme neuroborreliosis in TESSy in 2019, ECDC started a project in 2020 to support Lyme neuroborreliosis (LNB) surveillance and reporting in Member States. In collaboration with European Food Safety Agency (EFSA), WHO European Regional Office, and the World Organisation for Animal Health (OIE), a project to review the epidemiological situation of leishmaniasis in the European Union and its neighbourhood was initiated in 2020. These two projects will continue in 2021.

**Food- and waterborne diseases and zoonoses.** During 2020, ECDC continued addressing and coordinating urgent inquiries launched by participating countries or ECDC through the EPIS-FWD platform. The daily surveillance of the travel-associated Legionnaires' disease (TALD) scheme continued. With reduced travel in Europe, the number of reported TALD cases decreased to a third of that observed in 2019. FWD external quality assessment (EQA) schemes were performed for *Salmonella*, *Shiga-toxin producing E. coli*, *Listeria monocytogenes*, antimicrobial susceptibility testing (AST) for *Salmonella* and AST for *Campylobacter*. The first year of a contracted EQA scheme to support European surveillance of Legionnaires' disease was successfully completed as well. Close collaboration with EFSA continued on the EU One Health 2019 zoonosis report and the annual report on antimicrobial resistance in zoonotic and indicator bacteria from humans, animals and food in 2018/2019. ECDC also published two joint rapid outbreak assessments with EFSA.

**HIV, sexually transmitted infections and viral hepatitis.** In 2020, ECDC worked on further improving the quality of surveillance data for hepatitis B and C. The pilot of a new sentinel system (in hospitals and clinics) was finalised. Together with WHO and EMCDDA, ECDC established the first monitoring system for national hepatitis programmes to assess the progress made in the EU/EEA to meet the Sustainable Development Goals targets on hepatitis. ECDC worked in close collaboration with UNAIDS on a set of European principles for HIV pre-exposure prophylaxis (PrEP) and an operational guidance, and started the evidence collection phase for the update of the guidance on prevention of infectious diseases for people who inject drugs (PWID) jointly with EMCDDA.

**Influenza and other respiratory viruses.** ECDC and the WHO Regional Office for Europe continued their joint influenza surveillance and the publication of the weekly bulletin for Europe during the influenza season. A revamped FluNewsEurope website was launched. ECDC also continued its funding of the external I-MOVE network, which provided estimates of seasonal influenza vaccine effectiveness and produced valuable data for the composition of the next seasonal influenza vaccine. The work of the EuroMOMO network on all-cause excess mortality data reported from participating European countries was also maintained. Increased efforts were made

through social media to reinforce the awareness of seasonal influenza and the importance of vaccination to avoid a twindemic (influenza and COVID-19 simultaneously) in 2020.

**Tuberculosis.** On World TB Day (24 March), ECDC and the WHO Regional Office for Europe presented the joint annual report on tuberculosis surveillance and monitoring in Europe (2018 data). The report showed that the decrease in TB notifications continues but remains at a level that is not sufficient to reach the targets laid down in the UN Sustainable Development Goals. Following a successful three-year project that focused on the five high priority countries for TB in Europe, ECDC started a project to provide similar support to all Member States. As part of this project, a workshop on the screening of migrants for tuberculosis took place in Athens in February.

**Vaccine-preventable diseases.** Throughout 2020, in the context of the pandemic, ECDC worked closely with the European Commission and Member States to prepare the rollout of vaccination programmes against COVID-19 disease and develop key evidence to inform COVID-19 vaccine deployment plans. Together with EMA, significant progress was made to advance plans for the set-up of a joint effort to monitor the effectiveness and safety of vaccines in real-life use, with priority given to COVID-19 vaccines. The ECDC coordinated EU/EEA NITAG Network also played a critical role in facilitating dialogue and exchange of scientific advice between Member States, with specific focus on COVID-19 vaccination. Surveillance of other vaccine-preventable diseases continued. In the context of the Measles and Rubella elimination goal in the European region, the Measles Annual Epidemiological Report with 2019 data was published. A proposed new model of meningococcal disease (IMD) surveillance was discussed at a network meeting held in March 2020. Furthermore, the ECDC online vaccine misinformation project continued and was adapted to the context of the pandemic, amidst concerns on the uptake of COVID-19 vaccines. The findings of the project will inform the future development of training materials and other resources for Member States.

## Other ECDC areas of activity: main achievements

**General management.** The Management Board approved the ECDC Strategy 2021-2027 at its meeting in June 2020 together with the Management Board's recommendations related to the final report of the third independent external evaluation of ECDC. The Strategy Roadmap and related Key Performance Indicators (KPIs) were adopted by the Management Board in their November meeting in order to enhance the implementation and monitoring of the ECDC Strategy. It was acknowledged, however, that the ongoing COVID-19 pandemic would be the main focus of work for some years to come and thus the Roadmap will be reviewed annually by ECDC. In the beginning of 2020, ECDC started working in the new organisational structure. However, as the Centre moved to a Public Health Event (PHE) mode of working in January, which overrode the formal organisational structures, the new structure has not been put into practice yet and the evaluation of its functioning has not been possible. In 2020, the proposal for the ECDC Integrated Management Framework was approved by the ECDC Director, and the plan for its implementation until 2027 will be developed in 2021. In 2020, the Integrated Steering and Supporting Systems (IceCube) programme was initiated with the major objective of developing a target architecture of the ECDC administrative systems that will better support ECDC business needs and that is more cost-efficient. In 2020, it was decided to initiate the implementation of ECDC Quality Management Framework based on the ISO9001 standard in 2021. In 2020, ECDC ran an external strategic and performance review on its COVID-19 response and established an action plan to implement the main recommendations by the end of 2021.

ECDC continued with the implementation and strengthening of its independence policy.

Overall, ECDC delivered 56% of the outputs initially planned in its Single Programming Document 2020–2022, and 90% of the outputs of the COVID-19 work programme approved in May 2020. 35% of the initially planned outputs were postponed to 2021 or cancelled.

**Collaboration and cooperation with EU institutions and Member States.** Since early 2020, ECDC was working in close collaboration with the EU/EEA Member States and EU Institutions on the COVID-19 pandemic, with smooth coordination between all parties a top priority. The Centre provided the Health Security Committee (HSC), the European Commission, the Council and the European Parliament with scientific advice and guidance and gave regular updates and technical support on questions related to COVID-19. Weekly meetings and video conferences took place with the Directorate-General for Health and Food Safety at both the strategic and operational levels. Close contacts were also maintained with the different Committees, special Committees and working groups of the European Parliament and with other EU Institutions such as the European Committee of the Regions.

Collaboration with other Agencies was intensified during the COVID-19 pandemic, particularly with EMA regarding work on vaccines, and with EASA, EMSA and ERA in the development of joint technical documents and guidance on travel.

During the first months of 2020, several delegations from Member States visited ECDC, including ministerial visits from ECDC's host country, Sweden, to receive briefings and presentations on the epidemiological situation of COVID-19.

As in previous years, ECDC participated in the annual European Health Forum Gastein. In 2020, the Centre organised a virtual session for around 200 participants on the potential of data in light of the pandemic, and early lessons learned with speakers from Member States, the European Commission and WHO.

**Resource management.** As of 31 December 2020, ECDC employed 271 staff members. Considering the Establishment Plan, the vacancy rate was 3.9% (including offers accepted). The Centre continued to support health and wellbeing with an enhanced stress support programme that was provided remotely for individuals and groups. This programme will continue in the coming years to build resilience in the workplace.

Budget execution in terms of commitment appropriations at year-end reached 96.77%, equivalent to EUR 60.4 million. The budget execution in terms of payment appropriations at year-end reached 75.26%, equivalent to EUR 47 million. For the first time in the Centre's history, 96% of invoices were paid within the time limits of the ECDC Financial Regulation.

ECDC continued to improve and strengthen its internal processes. Improvements included two new electronic workflows and four improved electronic workflows ensuring more efficient processes, increased compliance and reduced errors, and the introduction of a new module of the Centre's human resource system ensuring a seamless and faster preparation and follow-up of staff missions.

ECDC continued its efforts in strengthening its environmental management system with the aim to reduce its impact on the environment and optimise the use of resources. A scoping study to assess the current baseline and explore the possible use of the EU Eco-Management and Audit Scheme (EMAS) was performed in 2020.

**Information and communication technologies.** ECDC maintains approximately 30 information systems that support business users. During 2020, large scale IT projects in the area of surveillance continued and are expected to deliver results in 2021 and 2022: the Event and Threat Management Solution (ETMS), the EpiPulse portal, the ECDC Geoportal, the Surveillance Data Warehouse, among others.

The COVID-19 Situation Dashboard was urgently implemented to present ECDC COVID-19 data. Furthermore, more than fifteen IT solutions were further developed, including HelicsWin.Net, the Scientific Advice Repository and Management System (SARMS), the Declaration of Interest (DoI) system, the Stakeholders Relationships Management (SRM) system, the Early Warning and Response System (EWRS), FluNews Europe 2, Mobile Threats App, and the Management Information System (MIS).



# Part one – policy achievements

## Multinational indicators

Nb.	Multi-annual objective	Indicator	Target 2022	Verification	Result 2020
1	<b>Strategic objective 1</b> Provide scientific advice and authoritative information that enables effective decision-making by Member States and the European Commission	Proportion of ongoing and completed ECDC scientific outputs, available on the ECDC website	At least 90% of the ECDC scientific outputs planned	Annual plan of scientific outputs	74% (-1% compared with 2019)
2		Use of the surveillance Atlas by external users	+10% per year	Web statistics	35 783 users (26 353 in 2019, +35%) and 82 055 page-views (86 363 in 2019, -5%)
		Use of surveillance reports	+10% per year	Downloads of surveillance reports and number of citations of annual epidemiological report and enhanced surveillance reports	24 299 AER downloads (26 602 in 2019, -8%)
3	<b>Strategic objective 2</b> Support efficient decision-making by enabling the sharing of evidence and expertise	Impact factor of <i>Eurosurveillance</i>	>5	Journal Citation Reports, SCImago	6.4
4	<b>Strategic objective 3</b> Strengthen public health infrastructure and processes	Proportion of Member States finding EULabCap country reports useful for their lab infrastructures and processes improvement	70 % response of Member States; satisfaction >70% of respondents	Report from annual survey on Competent Bodies' feedback on usefulness of EULabCap report	Due to the COVID-19 crisis, the annual feedback survey on national dissemination and use of the individual EULabCap country reports shared in Feb. 2020 was postponed.
5	<b>Strategic objective 4</b> Strengthen public health workforce capacity and capability	Proportion of target population of professionals (NFPs and OCPs) trained on cross-border threats prevention and control	30% of target population trained	Target based on the ongoing training needs assessment conducted with Member States, CRM	199 participants in training activities specifically targeted to CCB audience. e-Learning offer open for all audiences increased.
6	<b>Strategic objective 5</b> Timely detect serious cross border health threats	Number of connections on CDTR	At least +10% per year	ECDC website statistics	133 external websites linked to CDTR issues (151 in 2019, -12%)
7	<b>Strategic objective 6</b> Coordinate and support the rapid assessment of risks and the identification of options for response	Average number of PDF downloads for a RRA	At least +10% per year	ECDC website statistics	On average, an RRA received 2 207 downloads in 2020 (in total 64 021 RRA downloads, + 1 086%)
8	<b>Strategic objective 7</b> Support national and international field response in the field	Proportion of field response requests positively replied by ECDC	100% of requests positively replied	PHF Unit statistics	100%
9	<b>Strategic objective 8</b> Further improve efficiency and further clarify responsibilities in close cooperation with relevant stakeholders, whilst retaining control over quality and service delivery.	Proportion of activities implementation of the Annual Work programme	>85%	Management Information System	ECDC delivered 56% of the outputs initially planned in its Single Programming Document 2020–2022, and 90% of the outputs of the COVID-19 work programme approved in May 2020. 35% of the initially planned outputs were postponed to 2021 or overall cancelled.  8 electronic workflows available in 2020 vs. 12 planned. 6 used in 2020.  96.77% of budget committed 75.26% of payments executed
		Timeliness of digitalised key processes	80% processes on time	As per list of key processes (covers processes for which digitalisation has been completed)	
		Percentage of budget committed (C1) and percentage of payments executed (C1) in the same year as the commitment	100% committed minimum; 80% paid minimum	Monthly monitoring report	

# COVID-19 response

## Context

The first declared cases of COVID-19 in China in December 2019 were associated with an animal market in the city of Wuhan. On 20 January 2020, China's National Health Commission confirmed that this novel coronavirus could be transmitted between humans. France identified the first confirmed case of COVID-19 in Europe on 24 January. Neighbouring Member States reported their first cases shortly after, as the virus spread across Europe. WHO declared the coronavirus outbreak a Public Health Emergency of International Concern on 30 January 2020. On 8 March 2020, Italy issued a decree to install strict public health measures including social distancing, starting in the most affected regions and on 11 March 2020 extended these measures at the national level. Following this, Spain, France and many other European countries implemented similar public health measures. On 11 March 2020, the Director General of the WHO declared COVID-19 a 'global pandemic'.

The COVID-19 pandemic is the largest, most intense and most prolonged public health event (PHE) that ECDC had to face since its formation. It has impacted all parts of society and put unprecedented pressure on healthcare and public health systems in every country.

## Results achieved in 2020

In 2020, supporting the EU COVID-19 response became the dominant activity of ECDC, consuming the majority of the agency's time and resources. ECDC started operating at PHE level 2, acute phase on 31 January 2020 and continues operating at this phase at the time of writing.

The Centre had to adapt its existing structure to meet the demands of the pandemic and respond flexibly by putting in place a number of temporary structures which, alongside the existing Public Health Event structure, tackled all COVID-19-related tasks.

In response to the COVID-19 pandemic and in line with its mandate, ECDC produced a number of Rapid Risk Assessments, technical reports and guidance documents, coordinated networks, collaborated with the European Commission and several other European Agencies, liaised with other Centres for Disease Control around the world and worked closely with the World Health Organization, updated its website on a daily basis with comprehensive surveillance data and analyses, organised communication around COVID-19 and performed many other activities.

ECDC's response consisted, in summary, of five groups of activities:

- **Surveillance and epidemic intelligence.** Continued epidemiological monitoring resulting in daily epidemic intelligence reports and weekly integrated reports, collection of surveillance data and publication of surveillance outputs, including a broad set of maps and dashboards – several of these maps were subsequently used as the basis for cross-border policy decisions and travel restrictions in accordance with Council recommendations;
- **Scientific and technical guidance for decision making.** Production of rapid risk assessments, scientific studies and guidance to support informed public health decision making at all levels, on a wide range of topics related to the effective response to the pandemic. Response to a large number of ad-hoc requests from European institutions and agencies, Member States and other stakeholders;
- **Enabling networking across Europe.** Establishment of the COVID-19-specific epidemiological and laboratory surveillance network, building on the experience and the model applied to the influenza networks, to foster exchange of experiences between Member States and to increase capacity within certain Member States and the Western Balkans countries;
- **Dissemination of evidence-based information.** Collection and publication of information on response measures directed to policy advisors, healthcare practitioners and other technical audiences; preparing videos, leaflets and infographics for the general public, ensuring at all times the scientific quality and coherence of COVID-19-related communication. Reply to a remarkable number of requests from various media sources;
- **Vaccine strategy support.** Support to the European Commission and Member States COVID-19 vaccine strategy, through developing scientific opinions, technical documents, mathematical models and closely collaborating with the National Immunisation Technical Advisory Groups (NITAGs) on different COVID-19 vaccine-related topics.

The Centre produced an unprecedentedly high number of outputs in response to the COVID-19 pandemic, and had the highest visibility since its creation, as described in section 6 (Communication) of this chapter.

Some selected outputs are highlighted below in chronological order:

**Non-pharmaceutical interventions.** The first *ECDC guidelines for non-pharmaceutical measures to delay and mitigate the 2019-nCoV impact*<sup>i</sup> were published as early as February 2020. In August, data on country response measures to COVID-19 started being collected and provided for download. The data on non-pharmaceutical interventions are based on information available from official public sources in Member States<sup>ii</sup> and is updated every two weeks in the ECDC-JRC Response Measures Database.

**Infection prevention, control and preparedness in healthcare settings.** Starting in February, an *Infection prevention and control and preparedness for COVID-19 in healthcare settings*<sup>iii</sup> technical report and four subsequent updates were published (March, May, July and October). The report aimed to provide guidance to EU/EEA healthcare facilities and healthcare providers on infection prevention and control (IPC) measures for the management of possible and confirmed cases of COVID-19 infection in healthcare settings, including in long-term care facilities. It also offered guidance on the management of specimens at laboratories in the EU/EEA.

**Surveillance strategy.** In April, a technical report on *Strategies of the surveillance of COVID-19*<sup>iv</sup> was published. It proposed an updated strategy for COVID-19 surveillance at national and EU/EEA level that specifically aims to reconcile the data needs for effective pandemic response with what is still feasible in countries and within healthcare systems under siege, while taking into account guidance issued by the World Health Organization.

## COVID-19 forecasting

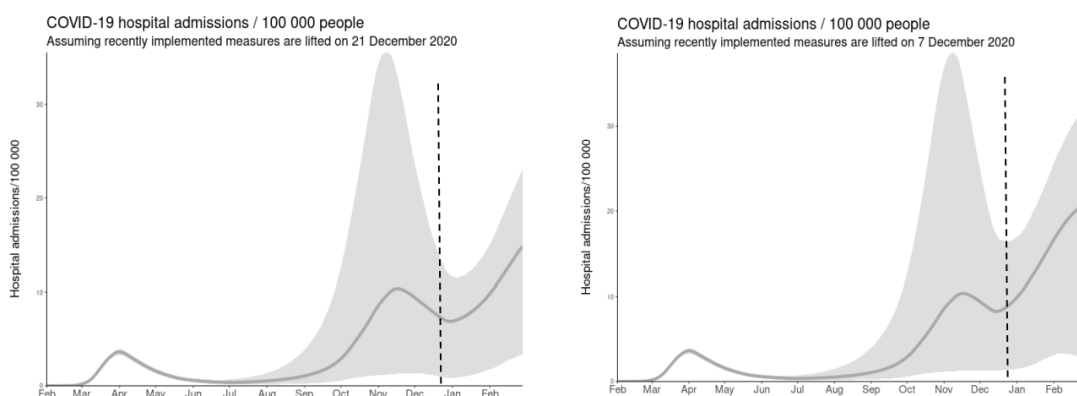
Following widespread transmission of SARS-CoV-2 in EU/EEA countries and the United Kingdom (UK) over several weeks, the COVID-19 epidemic reached a peak in most of these countries in April or early May 2020. Following the implementation of non-pharmaceutical measures aimed at reducing contact rates between people, the number of confirmed cases and associated morbidity and mortality diminished sharply. In most countries, the intensity of these measures was subsequently lightened. By late October 2020, a resurgence of cases was observed in EU/EEA countries and the UK. As this was accompanied by increased hospital and ICU admissions and deaths, the increase was considered to be a consequence of increased transmission, not solely increased testing rates. As a result, many countries have taken steps to re-introduce more stringent control measures to once again reduce the contact rate between people.

Mathematical modelling of SARS-CoV-2 transmission and associated COVID-19 disease is used to assess the potential progression of the epidemic within a population and to inform decision-making on potential interventions to ensure public health. The methodology inherently facilitates the quantification of uncertainty associated with these estimations and projections.

ECDC was particularly active in producing short- and longer-term COVID-19-related forecasts.

In May 2020, the Centre produced a set of short-term forecasts of the expected number of COVID-19 cases, deaths and hospitalised cases (subdivided into general hospital wards and intensive care units).

Updated forecasts were published in September 2020. In November, an *Updated projections of COVID-19 in the EU/EEA and the UK* report was published, in which slightly longer-term projections for each country were presented, up until 25 December 2020.



<sup>i</sup>Technical report available on [https://www.ecdc.europa.eu/sites/default/files/documents/novel-coronavirus-guidelines-non-pharmaceutical-measures\\_0.pdf](https://www.ecdc.europa.eu/sites/default/files/documents/novel-coronavirus-guidelines-non-pharmaceutical-measures_0.pdf)

<sup>ii</sup>Data available for download at <https://www.ecdc.europa.eu/en/publications-data/download-data-response-measures-covid-19>

<sup>iii</sup>All updates of the technical report available on <https://www.ecdc.europa.eu/en/publications-data/infection-prevention-and-control-and-preparedness-covid-19-healthcare-settings>

<sup>iv</sup>Technical report available on <https://www.ecdc.europa.eu/sites/default/files/documents/COVID-19-surveillance-strategy-9-Apr-2020.pdf>

**Point prevalence estimation methodology.** In May, a *Methodology for estimating point prevalence of SARS-CoV-2 infection by pooled RT-PCR testing*<sup>i</sup> was published. The methodology provided a way to estimate prevalence from the results of a pooled RT-PCR test, without the need of identifying individual test results, and the statistical foundation for the strategy. A method to optimise the pooling strategy with input for sample size decisions was further provided. Finally, an in-house R package to help public health authorities define a strategy and analyse the results was included.

**Contact tracing apps.** In June, a *Guidance on mobile applications in support of contact tracing for COVID-19*<sup>ii</sup> was published to guide the development and operation of mobile apps designed to complement conventional contact tracing efforts. The guidance highlighted the crucial importance of the involvement of public health authorities, epidemiologists and contact tracing staff in the development process, to ensure that apps function in accordance with the best available knowledge of the epidemiology of COVID-19. This guidance laid the foundation of the support work on the development of interoperable contact tracing apps in Member States, to be continued in 2021.

**Monitoring and evaluation framework.** The *Monitoring and evaluation framework for COVID-19 response activities in the EU/EEA/UK*<sup>iii</sup> was published in June. The purpose of this framework was to support EU/EEA countries and the UK in their efforts to monitor the implementation and effects of COVID-19 response activities.

**Vulnerable populations.** In July, a *Guidance on the provision of support for medically and socially vulnerable populations*<sup>iv</sup> was published. It aimed at guiding civil society and non-governmental organisations (NGOs) as well as national and regional authorities in the EU/EEA and the UK, who are providing support for medically and socially vulnerable people during the COVID-19 pandemic. Specifically, it identified some of the major cross-cutting challenges, successes and lessons learned by these organisations during the period of stay-at-home and other measures from March-May 2020.

**Vaccination strategies.** In May, the preparatory work for Member States COVID-19 vaccination campaigns was initiated. On 22 December, ECDC released the technical report *COVID-19 vaccination and prioritisation strategies in the EU/EEA*<sup>v</sup>, prior to the European Medicines Agency (EMA) recommendation for conditional marketing authorisation of the first available vaccine against COVID-19 disease, Comirnaty, developed by BioNTech and Pfizer.

**Variants of concern.** In the final days of December, a risk assessment *Risk related to spread of new SARS-CoV-2 variants of concern in the EU/EEA, including policy options*<sup>vi</sup> was published. It presented the latest available information on the recent emergence of two variants of potential concern, VOC 202012/01 (B.1.1.7) discovered in the United Kingdom (UK) and another variant, 501.V2 (B.1.351) identified in South Africa. It also assessed the risk of these variants of concern being introduced and spread in the EU/EEA, as well as the increased impact this would have on health systems in the following weeks.

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<sup>i</sup> Methodology available on <https://www.ecdc.europa.eu/sites/default/files/documents/Methodology-estimating-point-prevalence%20-SARS-CoV-2-infection-pooled-RT-PCR-testing.pdf>

<sup>ii</sup> Guidance available on <https://www.ecdc.europa.eu/sites/default/files/documents/covid-19-mobile-applications-contact-tracing.pdf>

<sup>iii</sup> Framework available on: <https://www.ecdc.europa.eu/sites/default/files/documents/covid-19-framework-monitor-responses.pdf>

<sup>iv</sup> Guidance available on <https://www.ecdc.europa.eu/sites/default/files/documents/Medically-and-socially-vulnerable-populations-COVID-19.pdf>

<sup>v</sup> Technical report available on <https://www.ecdc.europa.eu/sites/default/files/documents/COVID-19-vaccination-and-prioritisation-strategies.pdf>

<sup>vi</sup> Risk assessment available on <https://www.ecdc.europa.eu/sites/default/files/documents/COVID-19-risk-related-to-spread-of-new-SARS-CoV-2-variants-EU-EEA.pdf>

**Figure 2. Excerpt of the timeline of ECDC's response to COVID-19<sup>i</sup>**

The above outputs represent just a highlight of the enormous amount of work that the Centre undertook. It is worth noting that in 2020, a total of 24 COVID-19 related Rapid Risk Assessments and Threat Assessment Briefs were published, as well as 71 technical reports. As expressed by many stakeholders and highlighted in the report resulting from the strategic and performance review of ECDC's response to COVID-19<sup>ii</sup>, the ECDC guidance and outputs were highly valued due to their high quality and scientific robustness, and consistently considered relevant to ongoing circumstances. In addition, the scientific staff involved in the COVID-19 work provided timely response to thousands of requests from different stakeholders and the media. The amount and quality of the achieved results are a reflection of the vast number, expertise and commitment of the staff involved in the ECDC response to the pandemic.

## Surveillance and epidemic intelligence

### Surveillance

#### Context

Surveillance is one of the key tools for preventing and controlling infectious diseases. Consistent and comparable surveillance data of good quality enable public health professionals to monitor the spread and epidemiology of diseases and assess the effectiveness of interventions to prevent them. Supporting EU-level surveillance is one of the core tasks of ECDC according to its Founding Regulation and was reiterated in Decision No 1082/2013/EU on serious cross-border threats to health. ECDC coordinates the collection of disease data so that Member States can fulfil their legal obligation to report data. ECDC's overarching priorities for disease surveillance are to:

- detect and assess public health threats;
- inform prevention and control measures and policies;
- make the data available in user-friendly formats;
- reduce the burden of data provision by Member States; and
- take advantage of emerging technologies, in particular molecular typing and information technology.

#### Results achieved in 2020

Most surveillance work planned for 2020 had to be deprioritised due to the COVID-19 pandemic. ECDC rapidly established case-based surveillance of COVID-19 and coordinated it jointly with WHO Europe for the entire WHO European Region. Outputs included a real-time dashboard, weekly routine reports and peer-reviewed scientific articles. COVID-19 surveillance data also fed into numerous rapid risk assessments and predictive models and became the most frequently viewed dataset ever on the EU Open Data Portal (> 500 000 views).

<sup>i</sup> The full timeline can be accessed at: <https://bit.ly/ECDCTimeline>

<sup>ii</sup> The full report is available from [https://www.ecdc.europa.eu/sites/default/files/documents/ECDC\\_report\\_on\\_response\\_Covid-19.pdf](https://www.ecdc.europa.eu/sites/default/files/documents/ECDC_report_on_response_Covid-19.pdf)

Despite this singular challenge, ECDC and the disease networks managed to publish 75% of the 2019 routine EU/EEA surveillance data in the Surveillance Atlas of Infectious Diseases<sup>i</sup> within three months of closing the data collection.

The Centre launched its Geoportal<sup>ii</sup> and further developed future surveillance systems, which are scheduled to go live in 2021: the new surveillance data warehouse; the new tool for event-based surveillance; and the new surveillance portal called EpiPulse that will allow ECDC and Member State users to perform all surveillance operations from one single entry point.

Finally, ECDC drafted a new long-term surveillance framework covering the years 2021-2027. It is aligned with the ECDC 2021-2027 strategy while reflecting lessons learned from the COVID-19 pandemic and anticipating an extended ECDC mandate as proposed in the recently published European Commission draft legislation.

## Supporting Member States with whole genome sequencing data for surveillance and outbreak detection

ECDC has been using WGS data for outbreak detection and investigation since 2016. This has proved effective in better detecting and delineating outbreaks and in identifying and controlling the sources of outbreaks.

In 2020, ECDC developed a new system for the collection, management, analysis and storage of whole genome sequencing data that will allow for real-time analysis and visual comparison of sequences to identify common strains and detect outbreaks. However, the new system was not published in 2020 due to competing priorities related to COVID-19; it will be published in Q2 2021. It will be first applied to listeriosis, salmonellosis, STEC infection, invasive meningococcal infection, MDR-TB and influenza, in accordance with the 'Strategic framework for integration of molecular and genomic typing into European surveillance and multi-country outbreak investigations, 2019–2021' (see also *3.2 Microbiology*). The WGS typing data platform will eventually be interoperable with an EFSA database for microbial typing (food safety). It will be released to Member States in spring 2021.

In 2019, ECDC started the WGS-based data collection for continuous listeria surveillance. ECDC also continued to offer, at no cost, limited WGS services to Member States that do not yet have the capacity or resources to support the investigation of multinational outbreaks of selected food- and waterborne diseases. Because of the success of this initiative, ECDC extended the offer of WGS services to cover any disease under EU-level surveillance. This became useful when the need to sequence SARS-CoV-2 appeared in 2020. 4 Member States and 6 laboratories used the ECDC sequencing services for SARS-CoV-2 in 2020

## Indicators for surveillance

No.	Objective	Indicator	Target 2020	Verification	Result 2020
1	Ensure the timely processing and availability of surveillance data	Time from the closure of Member States data collection to the publication of the results in the surveillance Atlas	3 months	Surveillance systems data monitoring	Within three months for 75% of all diseases (compared to 75% in 2019)
2	Evaluate EU/EEA-level surveillance systems as per EPHESUS project plan and define EU/EEA and national minimum surveillance standards and monitoring indicators	<ul style="list-style-type: none"> <li>Number of surveillance systems evaluated (as per milestones' in EPHESUS project plan)</li> <li>Surveillance standards and monitoring indicators for each enhanced surveillance system are published on ECDC website within 1 year after sharing the evaluation report with the relevant network.</li> </ul>	11 surveillance systems evaluated.  Surveillance standards and monitoring indicators published on ECDC website	Monitoring of milestones and quality indicators	None of the surveillance systems planned were evaluated in 2020 due to the COVID-19 PHE. Evaluations postponed to 2021  Publication of the surveillance standards and monitoring indicators on hold in 2020 due to the COVID-19 PHE. Standards and indicators for COVID-19 and influenza planned for 2021
3	Publish in-depth surveillance data analyses in peer-reviewed scientific journals	Manuscripts accepted for publication in peer-reviewed scientific journals with open access.	≥ 5 manuscripts with in-depth surveillance data analyses accepted for publication in peer-reviewed scientific journals with open access	Acceptance letters from journals received by first authors.	19 peer-reviewed scientific articles published based on EU/EEA surveillance data (5 of which were on COVID-19)

<sup>i</sup> <https://www.ecdc.europa.eu/en/surveillance-atlas-infectious-diseases>

<sup>ii</sup> <https://geoportal.ecdc.europa.eu/geocatalogue>

No.	Objective	Indicator	Target 2020	Verification	Result 2020
4	Consolidate and further develop molecular surveillance at EU/EEA level	Completion of milestones as per revised molecular surveillance roadmap.	All milestones completed as per roadmap.	Monitoring of milestones against roadmap	Milestones completed as per roadmap

## Epidemic intelligence

### Context

Epidemic intelligence can be defined as 'all activities related to the early identification of potential health threats, their verification, assessment and investigation, in order to recommend public health measure to control them'.

Monitoring and assessing threats to health in Europe from infectious diseases are core tasks of ECDC, performed either by screening various information sources or via notification by formal sources, e.g. the Early Warning and Response System (EWRS). Identified threats are discussed at the daily ECDC round table meeting, and an initial assessment on appropriate ECDC actions is carried out. The European Commission and EU Member States rely on the Centre's rapid risk assessments and technical support when faced with serious multi-country infectious disease threats. ECDC also works closely with the epidemic intelligence teams of WHO and other partners under the Global Health and Security Action Group.

### Results achieved in 2020

In 2020, ECDC developed a new tool to detect public health signals through real-time analysis of the Twitter platform<sup>i</sup>. This tool covers more than 60 diseases, including COVID-19. The tool was presented to several stakeholders including Member States and WHO, who started to use it in December 2020.

In 2020, most of the epidemic intelligence work was re-oriented toward COVID-19 detection. ECDC provided daily updates on cases and deaths worldwide from January to December 2020, and an overview of the EU/EEA situation at the regional level from May to December 2020. Finally, epidemic intelligence contributed actively to COVID-19 signals detection on a daily basis in 2020.

In 2020, the number of events monitored decreased significantly due to the monitoring of the COVID-19 pandemic. The Epidemic Intelligence team detected 97 new events (2019: 306) that met the criteria of a potential public health threat. Thirteen of the detected events led to the opening of a new threat (2019: 58). Of all new events, 59 (61%) originated in the EU (2019: 62%). A hundred sixty-nine EWRS messages and 4 657 comments were posted (2019: 81 EWRS messages, 153 comments). This amount of comments corresponds to Member States and European Commission's postings about COVID-19 during 2020. Eighty-five EWRS messages were classified as 'alert notifications', and 84 as 'other information'

The Centre maintained and updated its database for selected diseases (cholera, dengue, chikungunya, measles), and data access was granted to Member States and WHO. Regular exchanges took place with epidemic intelligence services and agencies in other countries. ECDC remained involved in the Early Alert and Response project of the Global Health Security Action Group.

In 2020, 11 434 users (4 700 in 2019) installed the Threat Report app on their mobile devices<sup>ii</sup>. Since its release in 2017, 75 000 ECDC documents were downloaded through the app.

### Indicators for epidemic intelligence

No.	Objective	Indicator	Target 2020	Verification	Result 2020
5	Provision of relevant and timely updates on threats to the Member States and the European Commission	Provision of regular epidemiological updates for threats under mid (1-6 months) and long-term monitoring (>6 months)	Update provided for 100% of threats under mid-term (1-6 months) and long-term monitoring (>6 months)	CDTR, epidemiological updates available on ECDC website	● 100%

<sup>i</sup>Tool available from <https://www.ecdc.europa.eu/en/publications-data/epitweetr-tool>

<sup>ii</sup> <https://ecdc.europa.eu/en/publications-data/threat-reports-app>

# Scientific support

## Scientific advice

### Context

The production of independent, evidence-based scientific advice that is methodologically sound, useful and timely is one of ECDC's foremost tasks. As a technical, publicly-funded EU agency, ECDC is committed to scientific excellence, independence, and transparency in its methods and processes. The Centre plays a crucial role as a trustworthy evidence-based and independent source of information. Producing reliable evidence syntheses at the EU level has the potential to save resources and avoid duplication of efforts. ECDC is committed to enhancing the consistency of its scientific advice outputs and aims to improve its analytical methods and processes as part of an overarching scientific strategy.

Prioritising work in the right areas at the right time is achieved through close exchange with stakeholders at the EU and Member State level. ECDC uses structured mechanisms to engage relevant stakeholders and make the decision-making process as transparent as possible. The Centre works closely with its established public health and disease networks to identify priority areas, exchange expertise, and share information. At the EU level, ECDC develops robust relationships with EU institutions and EU agencies responsible for risk assessment (e.g. through the EU-ANSA network of scientific advice in EU agencies, chaired in 2020 by the ECDC Chief Scientist). The Centre also contributes to other EU networks.

This collaborative and networking approach expands beyond the borders of the European Union and includes international partners as well as research bodies working in the areas of infectious diseases. To fulfil its core functions, ECDC needs to follow new developments in research and methodology on a global scale to ensure its work stays relevant and scientifically sound. Continued mutual learning and capacity building in collaboration with stakeholders are essential to keep scientifically and technically up to date.

### Results achieved in 2020

ECDC continued to implement its scientific strategy. The Centre published 212 scientific outputs in 2020 (including 85 technical reports/guidance documents and 65 peer-reviewed articles in scientific journals; see *Annex X, ECDC outputs published in 2020*). Half of the scientific production was directed to the response to the COVID-19 pandemic.

ECDC also provided rapid scientific advice to the European Commission and to Member States on a larger scale than ever before. More than 250 requests were addressed.

ECDC continued to manage its scientific outputs, including rapid risk assessments through its Scientific Advice Repository and Management System (SARMS) that supports all aspects of producing, sharing, peer reviewing, clearing, and editing of scientific reports. SARMS allows for quality monitoring and manages deadlines while increasing transparency, compliance, and internal collaboration.

As a publicly-funded agency, ECDC makes sure that most of its scientific output is freely available, both on its website and on the websites of scientific journals. Open access journals are considered the 'gold-standard'<sup>i</sup>. In 2020, 89% of ECDC publications in peer-reviewed journals were in those that were open access, demonstrating a continuous increase from the 2017 baseline (75%) for compliance on open access.

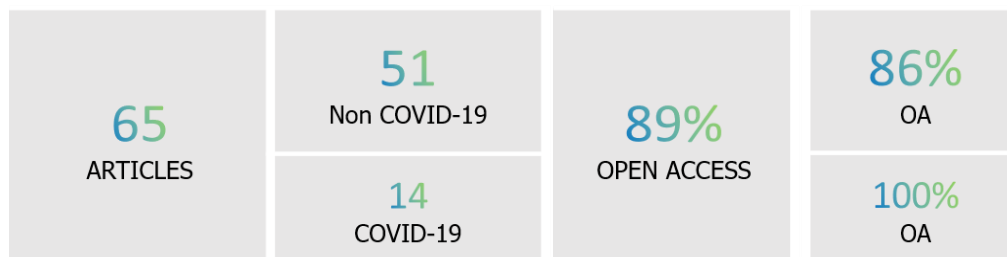
ECDC's IRIS 2.0 process for the prioritisation of scientific outputs with the ECDC Advisory Forum did not take place in 2020.

ECDC's Advisory Forum continued to play a vital role: it provided scientific feedback, supported scientific advice, and provided peer review.

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<sup>i</sup> According to ECDC's 'gold standard' open access policy, all ECDC publications, including articles published in peer-review journals that were produced or commissioned by the Centre, should be published as open access, with no embargo period before access is granted.



**Figure 3. Number of publications in peer reviewed journals and rate of open access, 2020**

The Centre responded to four non-COVID-19 formal scientific requests from the European Commission, none of which was forwarded from members of the European Parliament, and one was received from one Member State. The Centre however responded to 159 COVID-19 formal scientific requests from the European Commission and members of the European Parliament, and over 100 were received from Member States.

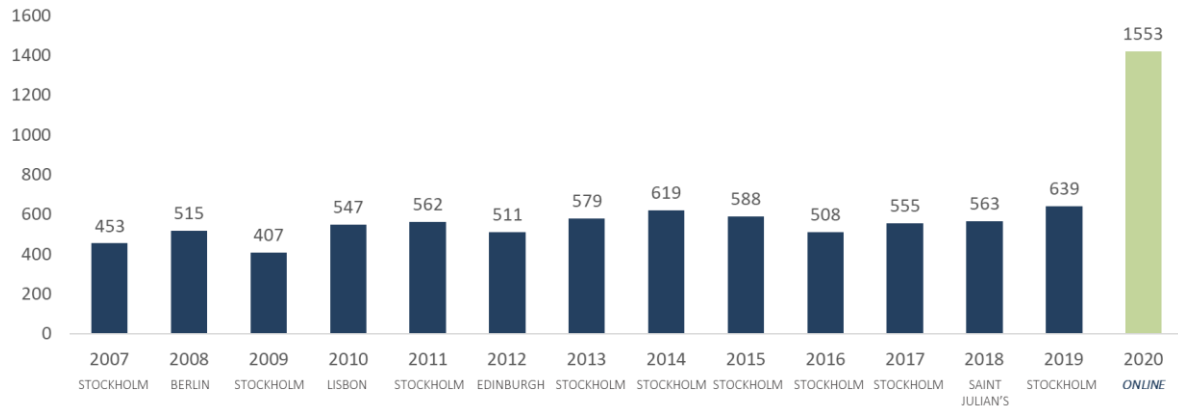
**Figure 4. Number of formal external requests answered**

The 2020 ESCAIDE conference was held on 24-27 November 2020 and organised as an online event due to the pandemic. A key theme at the ESCAIDE conference was COVID-19, with keynote speeches from Dr Andrea Ammon (ECDC), Dr Maria Van Kerkhove (WHO) and Prof George F. Gao (China CDC) on the pandemic and its epidemiological, clinical and societal impacts. Plenary sessions discussed the challenges of pandemic preparedness planning and response in times of COVID-19 and the role of behaviour change and new technologies in tackling antimicrobial resistance. The conference concluded with a debate on the future of field epidemiology training programmes, while reflecting on how those have helped to prepare a generation of the public health workforce active today.

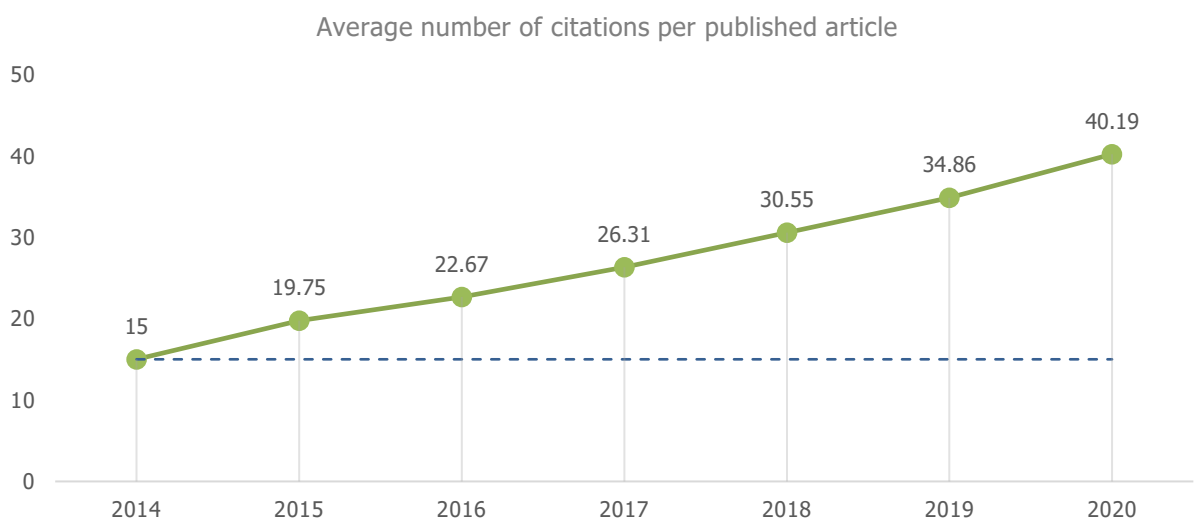
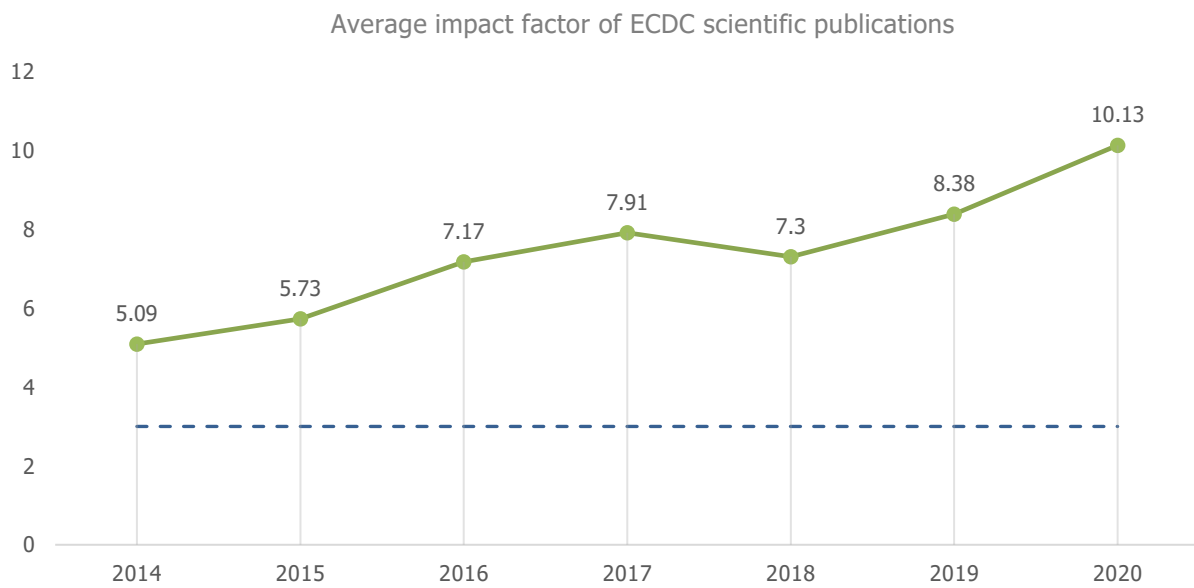
As every year, the ESCAIDE 2020 conference programme was also built around abstracts that had undergone a peer review process to assess the quality and public health relevance of each submission. There were 114 selected abstracts presented in 46 individual sessions, 11 Q&A panels and 68 poster exhibitions, with a special focus on the latest research concerning COVID-19, food-and waterborne diseases, HIV and sexually transmitted infections, vaccine-preventable diseases, influenza and respiratory viruses, antimicrobial resistance and emerging diseases. ESCAIDE 2020 presentations and scientific posters remain accessible for registered participants to view or review for three months, until the end of February 2021.

ESCAIDE 2020 received 1 553 registered online participants, coming from 28 countries inside EU/EEA (1 144 participants) and from 65 countries outside EU/EEA (412 participants), a three-fold increase in overall registration numbers in comparison to previous in-person editions.

**Figure 5. Number of ESCAIDE registered participants per year**



**Figures 6 and 7. Impact factor of ECDC scientific publications and average number of citations per article**



## Indicators for scientific advice

No.	Objective	Indicator	Target 2020	Verification	Result 2020
6	<p>Ensure integrity of ECDC's scientific activities in relation to technical and scientific content, methods, and internal policies and processes.</p> <p>Ensure that the Centre's scientific activities are published, disseminated and easily accessible to all.</p>	<ul style="list-style-type: none"> <li>Proportion of ECDC scientific outputs processed through SARMS, following the respective workflows and templates</li> <li>Proportion of ongoing and completed ECDC scientific outputs, available on the ECDC website</li> <li>Proportion of ECDC peer-reviewed articles, published as gold standard open access in scientific journals</li> <li>Uptake of selected ECDC outputs by target audience in the Commission and Member States</li> </ul>	<p>At least 90%</p> <p>At least 90% of the ECDC scientific outputs planned</p> <p>100%</p> <p>At least 70% of uptake.</p>	<p>SARMS</p> <p>List of planned scientific outputs on the ECDC web portal. This excludes articles in peer review journals* ECDC Library services.</p> <p>ECDC website statistics and surveys, dedicated meetings (e.g. AF); rating of ECDC publications on the web portal.</p>	<p>62%</p> <p>74%</p> <p>89%</p> <p>Referral traffic from the European Commission website increased by 6 683%, from 1 135 sessions in 2019 to 76 994 sessions in 2020.</p>
7	Promote the Centre's scientific work through outreach to the scientific and public health communities.	<ul style="list-style-type: none"> <li>Five-year impact factor* of ECDC peer-reviewed publications</li> <li>Average number of citations per publication**</li> <li>Proportion of abstracts submission and participants from EU/EEA at ESCAIDE</li> <li>Rating evaluations of ESCAIDE as 'excellent' or 'good'</li> <li>Meeting with EU key partners in public health research and risk assessment</li> </ul>	<p>&gt; 5</p> <p>&gt; 15 in the five years following publication</p> <p>At least 70% &gt; 75% of respondents</p> <p>At least one per year</p>	<p>ECDC Library services.</p> <p>ECDC Library services.</p> <p>ESCAIDE registrations, abstract database and evaluation and work plan</p> <p>Meetings with, for example, EU Agencies Network on Scientific Advice (EU- ANSA), JRC, etc.</p>	<p>10.13</p> <p>40.19 (see Figure 7)</p> <p>86% of submitted abstracts were from EU/EEA countries and 74% of the participants came from the EU/EEA</p> <p>83% of respondents (255/305)</p> <p>One EU-ANSA meeting (chaired by ECDC)</p> <p>Three meetings with DG RTD</p> <p>Participation in research and innovation open days (DG RESEARCH and Directorate-General for Health and Food Safety).</p>
8	High responsiveness to requests by providing authoritative and reliable scientific opinions and evidence-based guidance to Member States, European Commission and Parliament	<p>Proportion of requests answered within agreed deadlines:</p> <ul style="list-style-type: none"> <li>European Parliament;</li> <li>European Commission;</li> <li>Member States;</li> <li>Others.</li> </ul>	At least 95% of requests answered within agreed deadlines	SARMS	94 %

\* The five-year impact factor for  $X$  is calculated using the following formula, where  $X$  is year:  $\text{impact factor } (Y) = \text{citations in } Y \text{ to articles published in } Y-5 \text{ to } Y-1 / \text{articles published in } Y-5 \text{ to } Y-1$

\*\* The five-year average citation per article is calculated based on  $Y-1$  to  $Y-5$

## Microbiology

### Context

According to the EU health strategy, every Member State should have access to routine and emergency diagnostic and reference laboratory services to detect, identify, characterise and subtype human pathogens of public health significance. This requires maintaining and constantly adapting laboratory-testing capabilities at clinical, national and supranational reference levels. Rapid microbial and drug resistance screening tools are part of routine practices at point-of-care.

Whole genome sequence analysis is transforming microbiological diagnostics and typing, revealing outbreaks and identifying markers of virulence and drug resistance. The accuracy and usefulness of new microbiology technologies still need to be assessed. National reference laboratories need access to training and external quality assessment (EQA) schemes for novel technologies to ensure comparability and accuracy of surveillance data across Europe.

ECDC assists its networks of partners in Member States to maintain and further improve their public health microbiology capacity by monitoring microbiology capacity at the EU and national levels. ECDC and several laboratory networks (which are built around diseases or pathogens) organise external EQA schemes to evaluate the proficiency of laboratories to test key pathogens and drug resistance characteristics. ECDC and its networks agreed on an updated strategic framework for the gradual, coordinated and cost-efficient integration of data generated by whole genome sequencing into EU-level disease surveillance and outbreak investigations.

## Results achieved in 2020

ECDC's public health microbiology strategy for 2018–2022 has five priorities:

- facilitating the EU-wide use of whole genome sequencing;
- benchmarking public health microbiology services and promoting best practices across the EU;
- strengthening the EU public health microbiology capacity;
- strengthening the cross-sectoral and inter-agency integration of laboratory-based EU surveillance;
- developing synergies in the EU with innovative laboratory methods and e-health initiatives.

In 2020, most of the planned microbiology work had to be deprioritised due to the COVID-19 pandemic. The ECDC microbiology team focused mainly on supporting the pandemic response. This entailed coordinating and assessing microbiology capacities and initiatives in the EU/EEA region, providing advice and guidance as part of ECDC public health response outputs and contributing to the Agency's overall emergency response organisation.

ECDC continued implementing its third roadmap for molecular typing, entitled 'Strategic framework for integration of molecular and genomic typing into European surveillance and multi-country outbreak investigations, 2019–2021'<sup>i</sup>.

The Centre also continued to support the European Commission in the implementation of the European regulation on in-vitro diagnostic devices, and assisted the Consumers, Health, Agriculture and Food Executive Agency (CHAFEA) in the preparation of calls to strengthen the capacity of EU reference laboratories concerning antibiotic resistance.

## Indicators for microbiology support

No.	Objective	Indicator	Target 2020	Verification	Result 2020
9	Implementation of the ECDC microbiology strategy to support the development of sufficient microbiology capacity within the EU, to detect, prevent and manage infectious threats.	Proportion of Member States finding EULabCap country reports useful for laboratory infrastructures and process improvements.	At least 70% of Member States reporting practical use of annual EULabCap report	Report from survey on Competent Bodies' feedback on usefulness of EULabCap report	<ul style="list-style-type: none"> <li>• Due to the COVID-19 crisis, the Annual feedback survey on national dissemination and use of the individual EULabCap country reports shared in Feb. 2020 was postponed.</li> </ul>

<sup>i</sup> Framework available from <https://www.ecdc.europa.eu/en/publications-data/ecdc-strategic-framework-integration-molecular-and-genomic-typing-european>

# Preparedness and response

## EU and country preparedness support

### Context

In 2020, the public health emergency preparedness and response work was exclusively directed to supporting the European Commission and EU/EEA Member States and the UK to undertake actions to prevent the spread of SARS-CoV-2 and reduce the negative impact of the COVID-19 pandemic to the health of the European population.

In 2020, experts in the public health emergency preparedness and response team were heavily involved PHE activities, including in functions such as PHE manager, strategic analysts, PHE technical group, front line response duties, internal evaluators, technical support for PHE managers, team members of COVID-19 task forces etc.

### Results achieved in 2020

- **In- and After-action reviews:** ECDC developed a Technical Report on Conducting In-Action and After-Action Reviews of the public health response to COVID-19, which was published in June 2020. Following this publication, a training package was developed and one day training was delivered to EU/EEA Member States.
- **Competency based training:** a training on Public Health emergency preparedness, including experiences from the COVID-19 pandemic was organised virtually for EU/ EEA Member States and EU ENP countries.
- **Vaccination stress tests:** In support of the COVID-19 vaccine rollout programme, a simple simulation exercise called a stress test was run in two separate rounds in December 2020. The stress test was designed to give EU/EEA Member States the opportunity to review their vaccine deployment plans.
- **Literature reviews:** A number of literature reviews were launched in the context of the COVID-19 pandemic. These included reviews on: SARS-CoV-2 transmission by children and the effectiveness of school closures; the effectiveness of non-pharmaceutical interventions; and prognostic risk factors for severe outcomes of COVID-19.
- **Community preparedness:** In 2020, a report on community engagement for public health events caused by communicable disease threats in EU/EEA Member States was published after extensive work on specific case studies in the previous years.
- **COVID-19 preparedness and response guidance documents:** the preparedness and response team contributed to providing ECDC's partners and stakeholders with guidance in the areas of non-pharmaceutical interventions; healthcare systems preparedness and contingency planning, as well as in the area of travel. The *Monitoring and evaluation framework for COVID-19 response activities in the EU/EEA and the UK* presented a menu of indicators for key pillars of the COVID-19 response.

The In-Action Review (IAR) concept as described in the published guidance was further developed into a one-day event and presented in a four-hour interactive online workshop to public health experts. The participants were walked through the various significant elements of IAR. The workshop was delivered twice in October 2020 to a total of 38 participants from EU/EEA Member States, EU pre-accession and ENP countries, WHO-Euro and ECDC.

Following the elaboration and delivery in 2019 of two modules of competency-based training on Public Health emergency preparedness, two further modules were delivered online in 2020: 'Detection & Assessment' and 'Health Services'. The content was extensively revised to provide up-to-date examples based on experience from the COVID-19 response. The two modules, each lasting four hours, were attended by 24 participants from EU/EEA Member States, and ENP and EU pre-accession countries.

The stress tests for the COVID-19 vaccine roll-out programme, run in two separate rounds, were designed to give public health experts in EU/EEA countries the opportunity to test deployment scenarios in order to provide reassurance and identify gaps. Thirteen Member States completed the stress tests and were invited to share their experiences at a webinar in early 2021.

The Centre initiated a development of a focused protocol for review of an evidence-based decision-making process for COVID-19. The work is a continuation of previous years activities on collecting evidence and views (by means of literature review and expert meeting) on how expert evidence is used in the decision-making processes during the response to emergencies.

The report on community preparedness was developed based on extensive work over the previous three years, which included literature reviews, fieldwork with colleagues in EU/EEA Member States and an expert meeting. Involving communities in preparedness and response planning at a very early stage, as well as in evaluation process after events has been highlighted to be an important element of emergency public health preparedness and response work.

In 2019 and early 2020, ECDC provided technical support to the European Commission on the implementation of Article 4 of Decision 1082/2013/EU on serious cross-border threats to health, by being part of a task force to revise the reporting template for the triennial survey on the levels of national preparedness.

ECDC collaborated extensively with EU Joint actions SHARP and Healthy Gateways on a number of initiatives and work related to the COVID-19 pandemic<sup>i</sup>. The Emergency Preparedness and Response team was involved in EU Joint Actions meetings, discussions, consultations and the production of joint guidance.

The work organised in previous years to assess preparedness for bio-risk awareness and biosafety by means of simulation exercises and expert meetings, contributed to improved expert collaboration between several sectors: public health, law enforcement and civil protection. Establishing foundations for closer inter-sectorial collaboration at the EU level proved to be important in 2020 during the COVID-19 pandemic response. Moreover, ECDC provided input in the initial discussions on the new joint action plan on terror attacks, an initiative of the European Commission and Member States.

At the end of 2019 and accelerated with the COVID-19 pandemic in 2020, there were discussions and efforts for the development of a framework of indicators for monitoring public health emergency preparedness and response. The *Monitoring and evaluation framework for COVID-19 response activities in the EU/EEA and the UK*<sup>ii</sup> aimed to support Member States in their efforts to observe the implementation and effects of COVID-19 response activities. A number of indicators for key pillars in the response domain were elaborated to guide collection and analysis of data to assess effectiveness of response measures.

In the last quarter of 2020, a contract was signed for the development of an assessment matrix for public health emergency preparedness. This work will continue in 2021 and will be aligned with the outcome of the initiative for building a European Health Union, which envisages stronger health security and reinforcement of the crisis preparedness and response role of ECDC<sup>iii</sup>.

The planned annual meeting with the Focal Points for preparedness and response and Focal Points for threat detection, IHR and EWRS was transformed into webinars. From May until December 2020, nine webinars were organised for NFPs for Preparedness, Response and Threat Detection. The average number of participants per webinar was 45 experts. Representatives from EU/EEA and EU pre-accession countries, as well as from WHO and other international organisations (Centres for Disease Control) participated in these virtual meetings.

The topics discussed during the webinars were related to the COVID-19 pandemic, including:

- preparedness and response to the public health emergency event – preparations, lessons learned, challenges and opportunities;
- data collection and use of reporting systems (e.g. EWRS);
- testing strategies, serology and immunity for SARS-CoV-2;
- escalation and de-escalation of response measures and methods to monitor the implementation;
- actions to support medically and socially vulnerable populations;
- adoption of and compliance with non-pharmaceutical measures such as: school closures, physical distancing, use of face masks in public spaces, guidance on safe travels;
- development of vaccines and organisation of vaccination programmes;
- outbreaks in different occupational settings;
- post-hospitalisation COVID-19 consequences and resilience of the European health systems;
- preparation of assessment of actions (After Action Reviews) and partnerships with key stakeholders;
- human and animal health aspects of the COVID-19 pandemic;
- updates on ECDC's Rapid Risk Assessments.

<sup>i</sup> Joint actions are implemented with Member States' competent authorities, funded through the Third EU Health Programme (2014–2020). ECDC participates in a number of joint actions, such as SHARP (Strengthen Implementation of Decision 1082/2013/EU, support EU level preparedness and response to health threats, and implement the International Health Regulations (2005)). The Centre also participates in 'Healthy Gateways', a programme addressing points of entry, EU-JAV (Joint Action on Vaccination), and EU-JAMRAI (Joint Action on Antimicrobial Resistance).

<sup>ii</sup> The framework is available on <https://www.ecdc.europa.eu/en/publications-data/covid-19-monitoring-and-evaluation-framework-response-activities>

<sup>iii</sup> More information is available on [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_2041](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2041)

## Indicators for EU and country preparedness support

No.	Objective	Indicator	Target 2020	Verification	Result 2020
10	Support the European Commission in monitoring the implementation of Decision 1082/2013/EU (in particular Art. 4 – preparedness) with scientific evidence base, gap analysis on public health preparedness of individual Member States and identification of areas for enhanced support.	Annual monitoring report on analysis of Member States progress plans, as mentioned in Article 4 of decision 1082, submitted to the European Commission	Monitoring report submitted to European Commission and endorsed by HSC	Agenda of HSC	The COVID-19 pandemic triggered discussions and development of proposals or changes in the EU legal framework on health security, including public health emergency preparedness and response planning and implementation of measures. The planned work in relation to the analysis of EU/EEA responses to Art 4/Decision 1082 was put on hold as reporting did not take place in 2020.
11	Strengthen preparedness in countries by identification of gaps in preparedness and response plans for specific cross-border threats, and provision of options for an action plan.	Number of reviews of Member States preparedness plans	Five EU/enlargement countries preparedness plans reviewed by ECDC	Technical reports published on ECDC website	Due to the COVID-19 pandemic missions to countries were not executed. Review of plans for COVID-19 was initiated and conducted by the European Commission at the beginning of the pandemic.

# Response and emergency operations

## Context

One of ECDC's core tasks is to provide technical support to the EU-level response to disease threats. Decision No 1082/2013/EU on serious cross-border threats to health strengthens the coordination between the European Commission and Member States in this area. ECDC public health experts support the European Commission and Member States in the area of emergency response. The EU Early Warning and Response System (EWRS) on public health threats is operated by ECDC on behalf of the European Commission and serves as a key tool to support the EU-level response to cross-border health threats.

ECDC prepares and publishes rapid risk/outbreaks assessments that are aimed at supporting Member States and the European Commission in their preparedness and response to public health threats. They provide a timely summary and risk assessment of public health threats for EU/EEA countries related to a specific event. They also include options for response. ECDC may issue updated risk assessments and epidemiological updates as outbreaks or public health events progress.

ECDC also operates an emergency operations centre. ECDC's public health emergency plan enables the Director to mobilise resources to support the EU-level response to serious cross-border threats to European public health.

ECDC constantly reviews and updates the plan based on lessons learned from crisis simulation exercises and real-life emergencies.

## Results achieved in 2020

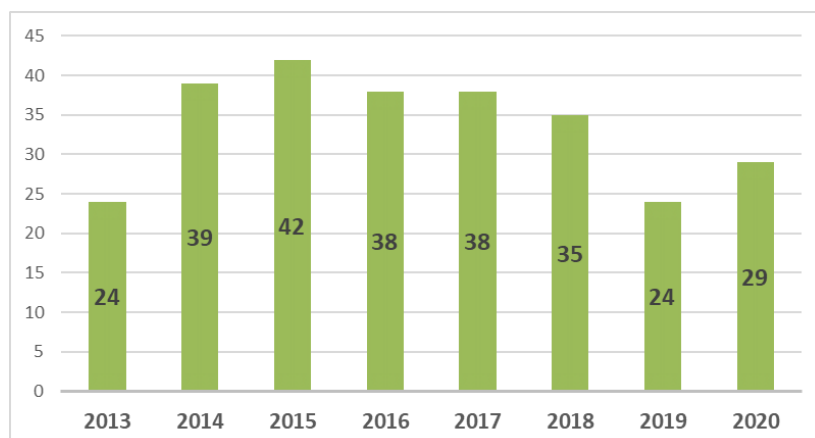
The COVID-19 pandemic severely influenced ECDC's activity in 2020. According to the structure designed for public health events, most of the ECDC expert staff was mobilised to contribute to the response to the COVID-19 pandemic.

Following initial information about several cases of pneumonia of unknown origin detected in the city of Wuhan in China, ECDC activated its Public Health Event (PHE) plan to level 0 phase 1 (alert mode) from 9 to 15 January, moving to PHE level 1 on 21 January and to PHE level 2 on 30 January. Since then, the maximum level of alert has been maintained to date. Moreover, on 18 March 2020, the COVID-19 support group was created to better manage the number of experts working on COVID-19 response, and on 14 September 2020 a new Disease Programme for COVID-19 was established, addressing the need to integrate the COVID activities into ECDC long-term processes (see also section 1. *COVID-19 response* of this chapter).

In 2020, the usual epidemiological updates that provide updated information on currently evolving outbreaks or public health threats focused exclusively on COVID-19. Epidemiological updates typically contain case numbers, the temporal and geographical distribution, age and sex distribution, information on identified or potential risk factors, and a risk assessment. In this regard we consider the 321 daily summaries sent by the Epidemic Intelligence team to the Directorate-General for Health and Food Safety from 1st February to 17th December, as the EPI-updates for 2020.

Following the need to better specify the risk questions included in the COVID-19 rapid risk assessments, the response team updated the process to define the level of risk for those questions. This approach contributed to facilitating and harmonising the assessment of the risk level.

**Figure 8. Number of rapid risk assessments published per year**



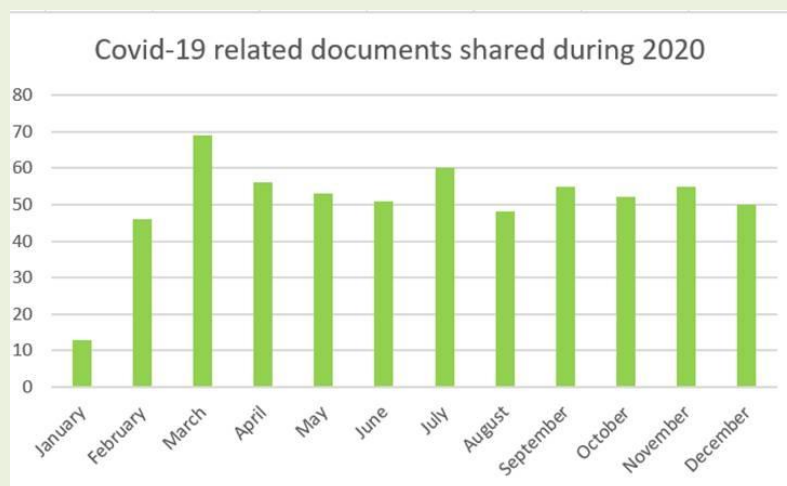
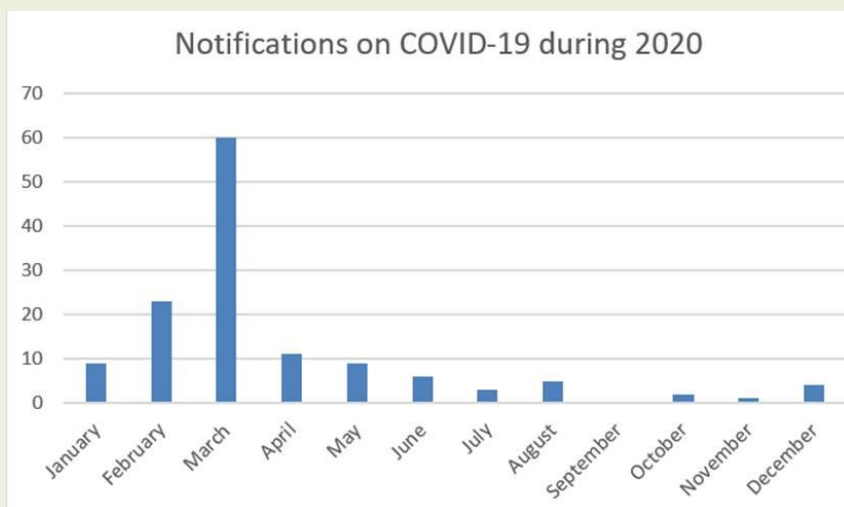


## The new EU Early Warning and Response System on public health threats and COVID-19

The European Union's Early Warning and Response System (EWRS) is a tool for monitoring public health threats in the EU. Access and posting are confidential and only open to ECDC, Member States and the European Commission. The EWRS is used to address threats that are unusual or unexpected, that present a risk of significant incidence or mortality, or that have the potential to exceed national response capacities.

The COVID-19 pandemic represented an intense and continued exercise to check how the updated version of the EWRS addresses needs in this kind of scenario.

During 2020, the EWRS activity related to COVID-19 was extensive. 98% of all comments were related to COVID-19. Early in the pandemic, Member States shared response measures in the newly developed incident management module. In total, Member States and the European Commission posted 4 657 comments across 133 notifications and shared 608 documents related to COVID-19. Throughout the pandemic, Member State cross-border contact tracing activities increased tenfold over the course of 2020 in EWRS.



In 2020, two missions including two ECDC experts each, were organised to support Italy and Greece during the initial stages of the pandemic in their respective countries. The first one was a joint WHO-ECDC mission from 24 February to 3 March, organised following an offer from WHO Euro Regional Director to the Minister of Health in Italy. That mission was agreed following the rapid increase in cases of laboratory confirmed coronavirus (COVID-19) detected in Italy since 21 February 2020, with a number of associated reported deaths.

The second mission was organised following a request from the Director of the Greek National Public Health Organization (NPHO) and took place from 5 to 15 March, with the main purpose of providing technical support to

the Greek Ministry of Health and the National Public Health Organisation for the management of the outbreak of COVID-19 in the country.

To support the investigation of multi-country outbreaks, ECDC further developed a new survey tool which helps Member States design questionnaires on threats and outbreaks that follow a common format, so that affected countries can exchange information more efficiently.

In the area of substances of human origin (SoHO), ECDC continued to support the European Commission and Member States by preparing risk assessments and regular briefings. Also, ECDC provided contributions and actively participated in the National Competent Authorities meetings. ECDC continued working on the risk assessment of parasitic and fungal disease transmission through SoHO. Together with the Italian National Transplant Centre (CNT), ECDC co-organised an international meeting of the Notify project. ECDC worked closely with the European Commission on donor selection and safety issues, in developing and regularly updating a guide for COVID-19 convalescent plasma collection and transfusion, and developed and regularly updated the technical document on COVID-19 and safety of the supply of substances of human origin.

The ECDC Emergency Operations Centre (EOC) was activated mid-January 2020 for the COVID-19 pandemic and is still active in PHE level 2. This long and intensive crisis has shown the added value and usefulness of the EOC. The concept of high flexibility and adaptability of the ECDC EOC, which has been developed over recent years, was fully used and allowed ECDC to engage a large amount of experts in the COVID-19 response, working on site or remotely.

ECDC is a member of the steering committee of the Global Outbreak Alert and Response network (GOARN) until 2022 and contributes to developing a mechanism for the monitoring and evaluation of GOARN activities.

## Indicators for response and emergency operations

No.	Objective	Indicator	Target 2020	Verification	Result 2020
12	Provision of relevant, timely and quality rapid risk assessment to support the risk management carried out by the Member States and the European Commission	Average number of downloads per RRA  Level of satisfaction of the RRA by ECDC stakeholders	+ 10% increase  >75% satisfaction on usefulness and impact	Source SARMS (ECDC Scientific Advice Repository and Management System)  ECDC stakeholder survey, external evaluation, dedicated evaluations	On average, an RRA received 2 207 downloads* in 2020 (in total 64 021 RRA downloads, + 1 086% compared to 2019)*.  (* Downloads from users who did not accept cookies were not counted.)  All RRA were produced within the agreed time schedule  No survey or evaluation was conducted in 2020.
13	Mobilisation mechanisms for public health response teams developed	Provision of support teams upon request from Member States	100% of the requests for response support from Member States honoured	List of requests from Member States Repository of support teams to be set up (DMS)	100%

# Training and capacity building

## Public health training

### Context

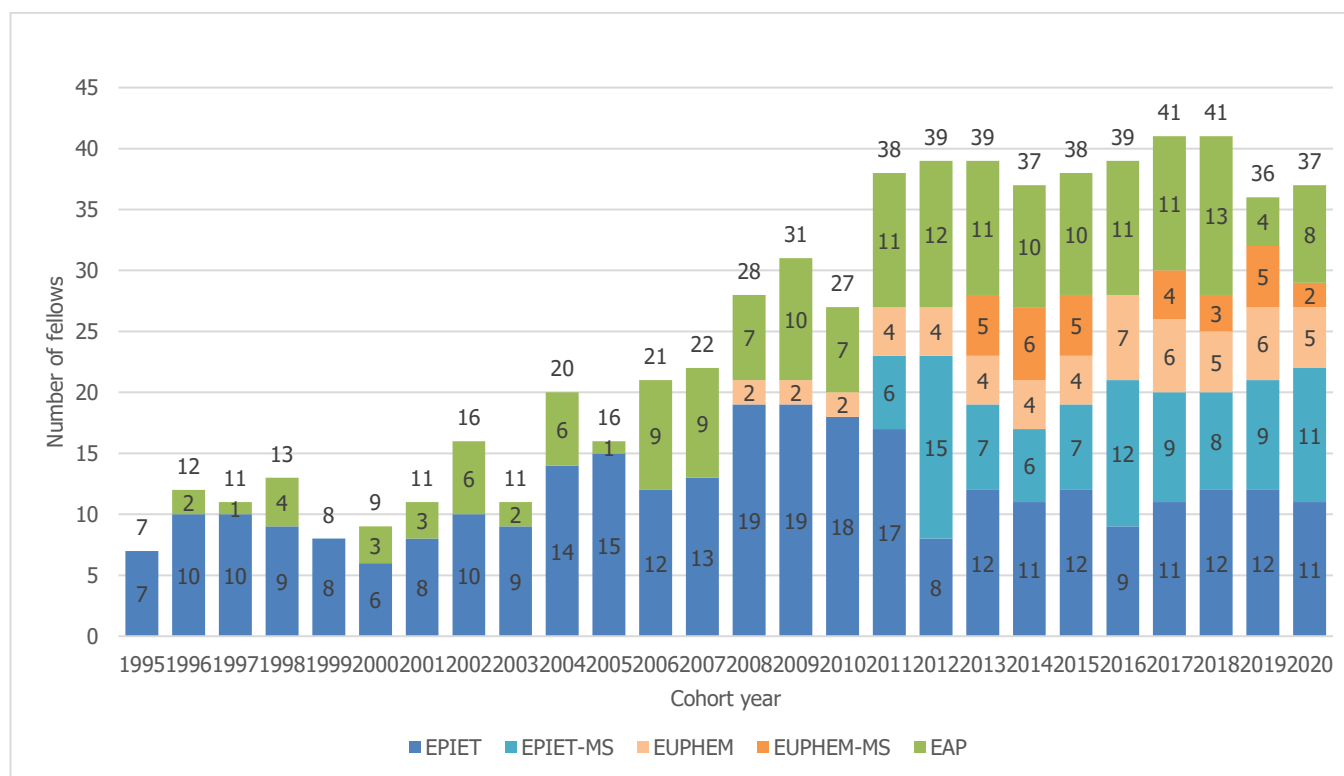
The defence against communicable diseases in the EU relies on a competent workforce at all levels. ECDC has the mandate to coordinate and support training programmes to ensure that Member States have sufficient numbers of trained specialists<sup>i</sup>. Consequently, the ECDC Public Health Training Strategy 2015<sup>ii</sup> set three objectives:

- To strengthen and maintain the workforce in Member States and at the EU level by training key national experts to ensure adequate capacity for communicable disease preparedness, prevention, detection, assessment and control. This is ensured through:
  - The ECDC Fellowship Programme, a two-year learning-by-doing programme, with a path for intervention epidemiology (EPIET) and one for public health microbiology (EUPHEM)
  - The Continuous professional development training offer that targets mid-career and senior public health professionals.
- To strengthen and maintain a network of European and global training partners to support capacities for training at the community, local, subnational, national, and European levels.
- To provide a virtual training infrastructure: the ECDC Virtual Academy (EVA).

### Results achieved in 2020

In 2020, 31 fellows graduated from the ECDC Fellowship Programme and the EPIET-associated programmes (cohort 2018). At year's end, 73 fellows were enrolled (36 from cohort 2019 and 37 from cohort 2020). The Programme, which operates in public health institutes and laboratories located in EU/EEA countries, features an introductory course, training modules, and international assignments.

**Figure 9. ECDC Fellowship Programme: number of enrolled participants per cohort, 1995–2020**



As COVID-19 activated the emergency operation centres and institutes in Europe, EPIET and EUPHEM fellows performed a wide range of activities related to the early detection, diagnostics, risk assessment and communication, preparedness, response and operational research in epidemiology and public health microbiology.

<sup>i</sup> Article 9 (6) of the ECDC Founding Regulation and Article 4 of Decision No 1082/2013/EU

<sup>ii</sup> <https://ecdc.europa.eu/en/publications-data/ecdc-public-health-training-strategy>

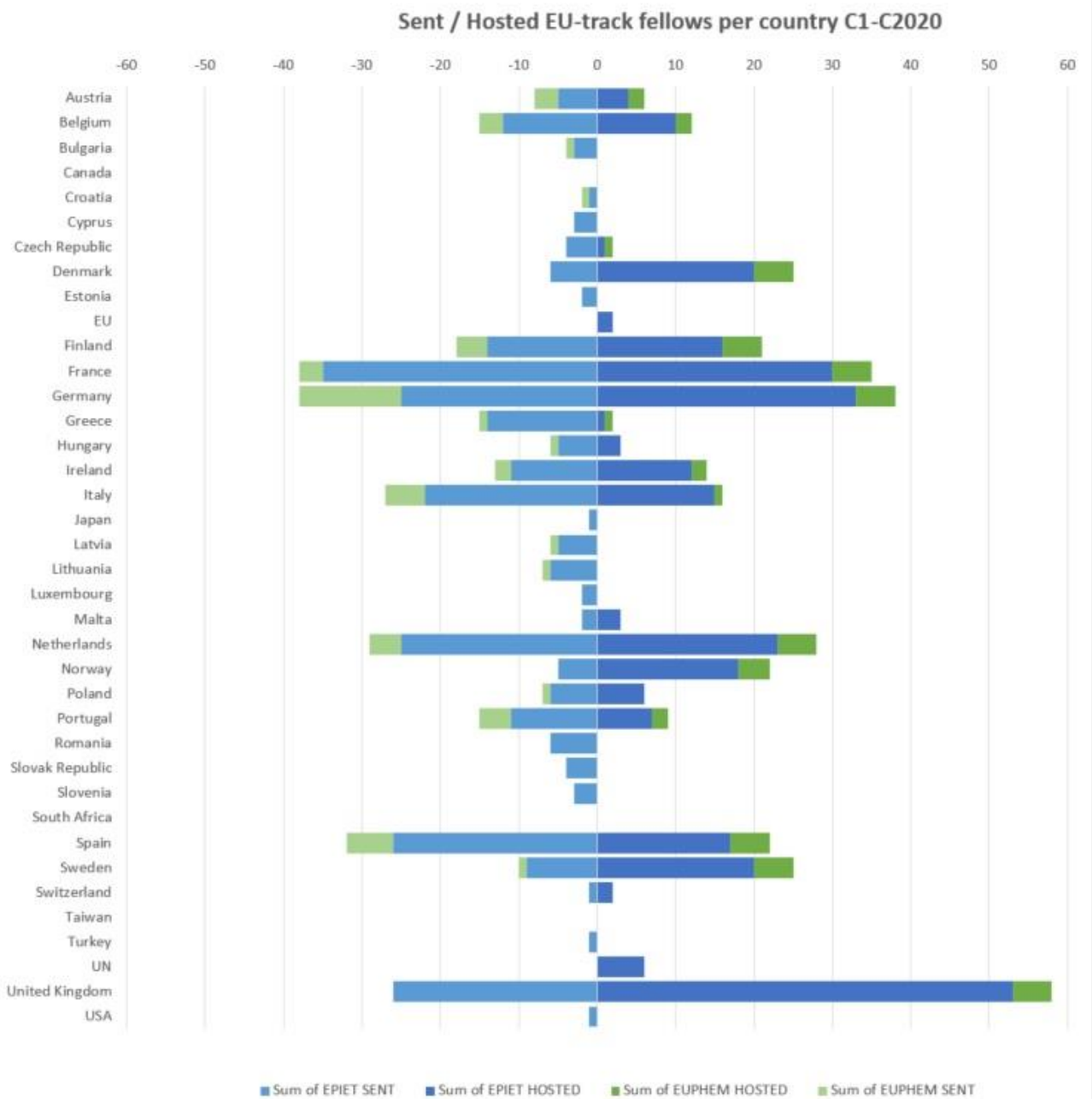
Its in-service nature and direct contribution to strengthen response capacity to tackle cross-border threats, justified all efforts invested to keep the start date of Fellowship for Cohort 2020 and to maintain business continuity, despite the challenges (upon cancellation of face-to-face activities). The selection of Fellowship Cohort 2020 was possible by conducting both the interviews with candidates and the 'market' with training sites online. After the module of initial management and communication conducted as a hybrid format (with EUPHEM fellows attending face-to-face, and EPIET, online) in February, all modules were transformed into online activities in 2020, including the Introductory Course of Cohort 2020.

**Table 1. Modules and participants, ECDC Fellowship programme**

Programme	Topic / track	Participants	Total
Fellowship Programme	EPIET cohort – EU-track 2019	10 (12 but 2 resigned)	69
	EUPHEM cohort – EU-track 2019	4	
	EPIET cohort – Member State - track 2019	11	
	EUPHEM cohort – Member State - track 2019	5	
	EPIET-associated programmes	5	
	EPIET cohort – EU-track 2020	10 (11 but 1 resigned)	
	EUPHEM cohort – EU-track 2020	5	
	EPIET cohort – Member State - track 2020	10 (11 but 1 resigned)	
	EUPHEM cohort – Member State - track 2020	2	
	EPIET-associated programmes 2020	7 (8 but 1 resigned)	
MediPIET (scientific leadership)	In 2020 – 15 fellows from Cohort 3 were under training	15	15

Online consultations with NFPT/TSF about the future Fellowship Programme after the 2019 external evaluation guided the definition of the concept and roadmap for improvements that will also involve simplification of administrative processes. In the 25th anniversary of the EPIET programme, its relevance was more evident than ever.

**Figure 10. Total EU-track fellows (sent and hosted) per country since the start of the Fellowship Programme**



In 2020, ECDC instructor-led training activities took place very often as distance learning, as they had to be readapted due to COVID-19. There were 208 participants, of which 173 attended the full course.

**Table 2. ECDC Instructor-led training activities and participants**

Name of training activity	Duration	Participants enrolled	Participants attended in full
Winter Workshop 2020: The science of using science to support policy making	24 hours (3 days)	45	32
Control of multidrug-resistant microorganisms (MDRO) in health care settings	45 hours (3 weeks)	32	24
Active Tuberculosis (TB) case finding in migrants	16 hours (2 days)	18	16
Active Tuberculosis (TB) case finding in migrants (online)	16 hours (2 days)	13	11
Design and conduct of an In-action review to consider the response to COVID-19 – Edition 1	4 hours	20	20*
Design and conduct of an In-action review to consider the response to COVID-19 – Edition 2	4 hours	20	20*
Emergency Preparedness Capabilities: Detection and Assessment (Module 2)	4 hours	30	20
Emergency Preparedness Capabilities: 'Emergency Preparedness Capabilities: Health Services' (Module 1)	4 hours	30	30
<b>Total</b>		<b>208</b>	<b>173</b>

Several e-learning (including micro-learning) on key aspects of COVID-19 prevention and control were produced and available at the ECDC Virtual Academy. For the traditional e-learning where participants need to login to the EVA platform, there were 1 360 participants of which 367 completed the course. A third of participants completing the course is an acceptable number according to the literature.

**Table 3. e-learning courses where participants log in to EVA and participation**

Course Name	Enrolled	Completed/Obtained certificate *	Duration (hours)
e-Learning for front-line managers on COVID-19 response to vulnerable populations *	122	32	1,5
Essentials of Writing and Reviewing Scientific Abstracts: a field epidemiology focus	155	46	2
Assessing and grading evidence in public health e-learning course (PRECEPT)	83	17	2-3
Cross-border sharing of public health data e-learning course *	99	26	3
e-Learning on Migration and Health for Health Professionals *	50	8	8
e-Learning on Migration and Health for Law Enforcement Officers *	11	3	8
e-Learning on Migration and Health for Social Workers *	15	2	8
e-Learning on Migration and Health for Trainers and Coaches *	18	6	8
Influenza bioanalytics e-learning course	61	11	3
Influenza vaccination campaigns targeting health care workers *	33	11	2-3
Introduction to Outbreak Investigation e-learning	241	74	6-8
Rapid Risk Assessment e-Learning course	151	47	3-5
Contact tracing in the context of COVID-19 response *	321	84	1,5
<b>total</b>	<b>1360</b>	<b>367</b>	
<i>* It is expected from the literature that only 1/3 participants to e-learning courses complete the courses. Furthermore, some complete the course and do not request a certificate.</i>			

ECDC produced other courses on COVID-19 that don't require authentication and user login to EVA. This option was chosen in order to allow the highest number of participants to access trainings linked to COVID-19. There were a total of 2 370 participants to these courses.

**Table 4. Participation in online offering 2020 without log in**

Course Name	Participants*
Micro learning - 1. What are non-pharmaceutical countermeasures for COVID-19?	573
Micro learning - 2. Which are the non-pharmaceutical countermeasures linked to Personal Protection?	246
Micro learning - 3. Which are the environmental non-pharmaceutical countermeasures to mitigate the impact of COVID-19?	400
Micro learning - 4. Physical distancing measures aimed at control of COVID-19: evidence and implementation	365
Micro learning - 5. COVID-19 infection prevention and control in the household	245
Micro learning - 6. Which are the travel related countermeasures to mitigate the impact of COVID-19?	307
Micro learning - 7. Mother-infant health in the context of COVID-19	76
Video-tutorial on how to report COVID-19 cases to ECDC via TESSy	158
<b>Total</b>	<b>2 370</b>

\*These courses don't require authentication (nor enrolment) and users don't need to log in to EVA.

Almost all EU/EEA countries sent participants to the ECDC courses, with the exception of three countries: Poland, Cyprus and Liechtenstein. The EU countries that had the most participants in ECDC's instructor-led activities were Italy (14 participants) and Belgium (13 participants). Twenty-eight participants to ECDC courses were from outside the EU/EEA.

The Senior Exchange programme was cancelled this year as travelling was not possible due to COVID-19.

Many experts and teams at ECDC are behind the production and delivery of Continuous Professional Development activities. Cooperation and multiple iterations between the Public Health Training section and subject matter experts made possible the design, development and implementation of the courses included in the ECDC Course listing for 2021<sup>i</sup>.

Triennial surveys to assess capacity and training needs in EU/EEA countries help tailor the ECDC training offer, in particular the continuous professional development. In 2020, the report on the results of the 2018 survey was published<sup>ii</sup>.

The project to update the core competencies on applied infectious disease epidemiology continued. Qualitative data collection started. The project is expected to be finalised in 2021. The identification of these competencies offers a means of developing a shared vision of what constitutes the specific knowledge and skills required for effective practice.

ECDC continued to provide scientific leadership for MediPIET, the Mediterranean and Black Sea field epidemiology training programme network, with Cohort 3 under training. In 2020, the transition to a new phase started, based on the signature of an agreement between ECDC and DG-NEAR (European Commission), to train two new Cohorts during the period 2021-2024. This will be in synergy and coordination with the Fellowship Programme, and as part of the EU Initiative on Health Security to enhance public health preparedness and response capacities of the European Union enlargement and the European Neighbourhood Policy partner countries<sup>iii</sup> (see also section 5.2 *International Relations*, of this chapter).

The Centre contributed with expert input to TEPHINET's learning advisory council for the field epidemiology training programme, and the development of a TEPHINET global learning strategy to ensure a well-trained and prepared field epidemiology workforce<sup>iv</sup>.

ECDC continued its contribution with the Global Laboratory Leadership Programme, together with WHO, the Food and Agriculture Organization (FAO), the World Organization for Animal Health (OIE), the US CDC and the American Association of Public Health Laboratories (APHL).

<sup>i</sup> <https://www.ecdc.europa.eu/sites/default/files/documents/continuous-professional-development-compendium-training-activities-2021.pdf>

<sup>ii</sup> <https://www.ecdc.europa.eu/en/publications-data/ecdc-capacity-and-training-needs-assessment-2018>

<sup>iii</sup> <https://www.ecdc.europa.eu/en/news-events/new-eu-initiative-health-security-eu-neighbours#:~:text=The%20EU%20Initiative%20on%20Health,to%20health%20from%20communicable%20diseases>

<sup>iv</sup> <https://www.tephinet.org/tephinet-launches-a-new-learning-strategy-to-ensure-a-well-trained-and-prepared-global-field>

## Indicators for public health training

No.	Objective	Indicator	Target 2020	Verification	Result 2020
14	Strengthen and maintain the workforce in the Member States and at the Community level through relevant training of key national experts, in order to ensure adequate performance of functions for communicable disease preparedness, prevention, detection, assessment and control nationally and cross-border.	A. Number of people trained, per Member State, per ECDC Public Health core function	A. >40 fellows in 2 cohorts included in ECDC fellowship, >300 participants to CPDP training activities (short courses, e-learning and senior exchange)	A. From ECDC training database (CRM): number of trained people	A. Number of persons trained:
					31 fellows graduated in 2020: 17 EPIET (10 EU - track, 7 Member States track; 8 EUPHEM (5 EU - track, 3 Member State - track); 6 from associated programmes (2 of these from cohort 2017 due to prolongation)
					539 external experts trained in the CPDP courses (including 367 through completed online courses and 2370 participants to micro-learnings).
					B. Course evaluation – satisfaction
		B. Participant satisfaction with ECDC training activities	B. >75% satisfaction	B. Course evaluation	ECDC Fellowship Programme (EPIET/EUPHEM): 100% positive feedback in portfolios from fellows.  Short courses: e-Learning for front-line managers on COVID-19 response to vulnerable populations (8,5); Essentials of Writing and Reviewing Scientific Abstracts: a field epidemiology focus (8,26); Assessing and grading evidence in public health e-learning course (PRECEPT) (8,3); Cross-border sharing of public health data e-learning course (8,3); e-Learning on Migration and Health for Health Professionals (8,4); e-Learning on Migration and Health for Law Enforcement Officers (9,2); e-Learning on Migration and Health for Social Workers (10); e-Learning on Migration and Health for Trainers and Coaches (9); Influenza bioanalytics e-learning course (8,7); Influenza vaccination campaigns targeting health care workers (8,5); Introduction to Outbreak Investigation e-learning (8,7); Rapid Risk Assessment e-Learning course (8)
		C. Number of scientific articles of public health relevance by ECDC fellowship programme (EPIET/EUPHEM) during and 2 years after graduation.	C. > 50% increase compared to the 2-year period before entering the programme.	C. Database + ECDC Virtual Academy (EVA) platform, Bibliometrics (PubMed, Scopus)	C. Number of scientific articles  28% increase of publications Average number of annual publications per fellow two years before fellowship: 2.46. Average number of annual publications per fellow in the two years after fellowship: 3.15 (Source: PubMed, Scopus, out of 26 [ECDC- funded] fellows in Cohort 2016)
		D. Number of Fellowship graduates working in Public Health per Member State, per discipline (absolute and proportional)	D. Reduction of the gaps identified by the Training Needs Assessment	D. ECDC Virtual Academy (EVA): follow-up of graduates (profile updates), LinkedIn, PubMed, CCB	D. Number of graduates working in public health per Member State  95% EPIET Alumni and 100% of EUPHEM Alumni (Survey Cohort 2018)
15	Strengthen and maintain a network of European and global training partners, supporting capacities to provide training to the workforce in the EU at local, subnational, national and Community.	Perceived added value of ECDC Public Health Training activities by training stakeholders.	A. > 75%	Annual consultation with NFP for training	Perceived added value: Cancelled, online consultations held for future programme.



## International relations

### Context

Emerging pathogens and epidemics in other continents can threaten public health in the EU. ECDC therefore needs to maintain lines of communication with key technical counterparts around the world, most importantly with the World Health Organization and its Regional Office for Europe. ECDC also works bilaterally with major Centres for Disease Prevention and Control (CDCs). Multilateral collaboration is implemented via the established network of major CDCs that meets on a regular basis. Developing technical cooperation and exchange of information with EU candidate and potential candidate countries and the European Neighbourhood Policy (ENP) partner countries is also essential. ECDC works with public health authorities in these countries to introduce them to the EU's infectious disease surveillance and rapid alert systems and help them align with the EU acquis in the area of communicable disease prevention and control. ECDC's International relations policy 2020 – adopted by the Management Board in 2017 – provides a coherent framework for priority setting and action in this area.

### Results achieved in 2020

Following the successful closure of ECDC-IPA5 (Grant agreement 2017/386-267, implemented during 2017–2019, total budget 350,000EUR), ECDC signed and initiated implementation of ECDC-IPA6 action 'Preparatory measures for the participation of the Western Balkans and Turkey in the ECDC with special focus on One-Health approach against AMR, 2020 – 2022'. This project aims at preparing national authorities in EU candidate and potential candidate countries (i.e. Western Balkans and Turkey) for their participation in ECDC systems and networks and supports the advancement of One-Health approach against AMR in Western Balkans. All IPA beneficiaries sent their Letters of Intent thereby expressing country's interest, willingness, and commitment to jointly implement ECDC-IPA6 in 2020-2022. However, the evolution of the COVID-19 pandemic heavily affected the implementation of planned activities. Following multiple iterations of joint discussions with the European Commission and beneficiary authorities in Western Balkans on immediate needs and gaps in the countries, the additional work stream on enhancing SARI surveillance was added to the ECDC-IPA6 Action with an extended implementation period until 2024. With the external financial assistance from the Directorate-General for Neighbourhood and Enlargement Negotiations under the Instrument for Pre-Accession Assistance (IPA), the ECDC-IPA6 Action covers three work streams:

- Work stream 1 that focuses on supporting authorities of IPA beneficiaries to implement the EU acquis on serious cross-border threats to health and in particular communicable disease prevention and control, by strengthening surveillance, preparedness, and microbiology laboratory system capacities supporting public health;
- Work stream 2 that focuses on advancement of One-Health approach against antimicrobial resistance;
- Work stream 3 with emphasis on enhancing hospital-based SARI surveillance systems and studies to support the implementation of fit-for-purpose surveillance systems in Western Balkans and a follow-up on vaccine effectiveness.

Under this action, ECDC initiated the integration of Western Balkans into the ECDC Viral Respiratory Diseases network and its associated COVID-Net and European Influenza Surveillance Network in 2020. The total budget for the revised ECDC-IPA6 project was increased by 1.5 million EUR to 2.5 million EUR total until 2024.

On 27 March 2020, the European Commission Directorate-General for Neighbourhood and Enlargement Negotiations and ECDC signed an agreement for the implementation of the new EU Initiative on Health Security (ENI/2020/415-420)<sup>i</sup>, with a total budget of 9 million EUR. The aim is to enable tailor-made support to strengthen public health systems' preparedness and response capacities of the European Union candidate and potential candidate and the European Neighbourhood Policy (ENP) partner countries and improve health security in the European neighbourhood. To meet the set goal, ECDC developed a proposal that includes the following work packages:

- Workforce oriented capability building, to be delivered through the Mediterranean and Black Sea Programme for Intervention Epidemiology Training (MediPIET);
- Capacity building on epidemic intelligence, risk assessment, preparedness, and response;
- Integration into ECDC systems, knowledge sharing and networking.

During the inception phase of the project, ECDC communicated with partner countries, ensuring the participation of 14 out of 15 ENP partner countries in the project, invitations to nominate experts for various ECDC networks, organising a kick-off meeting in October and launching the assessment process of partner countries' preparedness and response capacities. The analytical framework of this assessment consists of three parts:

<sup>i</sup> More information on the initiative available on <https://www.ecdc.europa.eu/en/news-events/new-eu-initiative-health-security-eu-neighbours>

- the first part provides an overview of the International Health Regulations (IHR) core capacities for prevention and control of infectious diseases based on available data in the WHO IHR monitoring framework.;
- the second part assesses preparedness and response planning based on information collected by self-assessment through the Health Emergency Preparedness and Response Planning tool;
- the third part analyses public health emergency preparedness planning and response measures based on information collected via survey on the practical implementation of public health emergency preparedness planning and outbreak response during the COVID-19 pandemic.

The results of this assessment are currently being analysed and will enable ECDC to provide tailored support to partner countries based on identified recommendations for improvement.

By the end of 2020, ECDC had developed a work programme for activities with ENP partner countries in 2021, which includes workshops, trainings, simulation exercises and other activities, with a duration of between a minimum of one and a maximum of 10 days, depending on the topic.

The assessment of Georgia was performed in 2019 (including the mission to Georgia carried out in November 2019) and completed in the first half of 2020. On 1 July 2020, ECDC provided the Directorate-General for Health and Food Safety with the final technical assessment report on Georgian capacities to address communicable diseases. The report, which included 66 recommendations in all areas assessed (public health governance, human resources development, surveillance, preparedness and response, public health microbiology laboratories and disease programmes), was done in consultation with country authorities.

ECDC monitored the level of preparation in EU candidate countries and regularly briefed the European Commission on the progress made. The detailed opinion on the countries' progress based on their participation in ECDC activities and after reviewing the update provided by the country via the Commission, was shared with Directorate-General for Health and Food Safety on the occasion of the EU-country subcommittee meetings, and contributed to the EU progress report.

## Liaising with major CDCs worldwide

ECDC continued close collaboration with other Centres for Disease Control (CDCs) across the globe to share information and best practice to effectively respond to threats posed to the public health both at multilateral and bilateral level.

In June 2019, on the initiative of ECDC, a meeting of Focal Points in CDCs was organised in Stockholm, Sweden. At this meeting, a number of CDCs across the globe agreed to establish an international forum, the Network of major CDCs, for regular information and expertise exchange to respond effectively to threats posed to public health. The Network, currently chaired by ECDC, proved to be very useful during the COVID-19 pandemic. In 2020, five meetings of the Network of major CDCs were held – on 6 February, 27 March, 19 May, 29 June and 4 September. ECDC, the Chinese, American, Canadian, African Union, Caribbean, Korean, Israeli and Singaporean CDCs participated in these meetings sharing information, expertise and best practices on dealing with COVID-19.

Additionally, ECDC intensified its collaboration with other CDCs at bilateral level, in particular with China and US CDCs. ECDC was in contact with both its American and Chinese counterparts from the beginning of the outbreak in Wuhan in January 2020, as well as with new international partners such as South Korea and Singapore.

2020 marked a significant milestone in the development of the ECDC and Africa CDC partnership over the last couple of years – a Contribution Agreement 'EU for health security in Africa: ECDC for Africa CDC' with the Directorate-General for International Cooperation and Development was signed with € 9 million budget and will come into effect on 1 January 2021. Africa CDC and ECDC will be able to exchange experiences and lessons learned from work with Member States on continental harmonised surveillance of infectious diseases, data sharing, and early detection of threats, as well as on preparedness, risk assessment, rapid response, and emergency operations, and on how to adapt these to their needs. All these areas include capacity-building components that will be integrated in the existing Africa CDC initiatives and strategies and will thus support the African health security framework. The high-level launch event of ECDC4Africa CDC on 7 December 2020 marked the beginning of this four-year partnership project. The project is funded under the European Development Fund.

ECDC continued its close collaboration with the WHO Regional Office for Europe. Throughout the pandemic, collaboration between ECDC and WHO Europe became even more robust and adaptive to the rapidly changing situation, which required ECDC experts to work in synergy with WHO and align activities. Apart from daily collaboration on a technical level, senior management of ECDC and WHO Regional Office for Europe were in close communication. Directors met regularly to discuss COVID-19 pandemic developments and how to better support the countries, avoid duplication, improve synergies and complement actions in a coordinated manner. In November, the annual ECDC – WHO Europe programmes' coordination meeting took place. Participants reviewed the achievements and lessons learnt and agreed on joint activities like AMR/AMC/HAI, TB, HIV/AIDS for 2021.

## Indicators for international relations

No.	Objective	Indicator	Target 2020	Verification	Result 2020
16	Assess the capacities of EU pre-accession countries in the area of prevention and control of communicable diseases and their progress in the implementation of the EU acquis	Proportion of pre-accession countries for which progress is monitored annually	Annual update sent to the Commission for 100% of countries assessed	Survey with recipients of the support mechanism	100% of the pre-accession countries were monitored. Detailed opinion provided to Directorate-General for Health and Food Safety for all countries on the occasion of EU-country subcommittee meetings, and contributed to the EU progress report
17	Support the progressive integration of EU pre-accession and European Neighbourhood Policy partner countries into ECDC activities, funded through external EU financial assistance	Average annual attendance rate to ECDC events by EU pre-accession and ENP partner countries  Level of satisfaction from EU pre-accession and ENP partner countries on ECDC support for their progressive integration into ECDC	75%  75% of respondents satisfied	Meeting attendance lists = total number of national experts attending ECDC meetings/total invited  Bi-annual survey with all experts of pre-accession and ENP partner countries	Not measured in 2020, since meetings were held virtually  Not measured in 2020, since no survey was performed
18	Strengthen the cooperation and partnership with the major CDCs across the globe through formal bilateral agreements with ECDC	Proportion of partner CDCs for which focal points have been designated  Proportion of partnership agreements for which evaluations are conducted	100%  75% of MoUs/partnerships evaluated	CRM, International Relations Section statistics	100%  Evaluation will be conducted in 2021.
19	Enhance the collaboration with WHO/Europe and revitalise the existing Memoranda of Understanding with CDC's in non-EU countries	Level of satisfaction from EU/EEA Member States on ECDC collaboration with WHO/Europe	75% of EU/EEA countries satisfied	ECDC stakeholder satisfaction survey includes the question to measure satisfaction of countries on ECDC/WHO collaboration and joint outputs	Not measured, since no stakeholder survey was conducted in 2020

## Coordinated country support

### Context

ECDC has provided capacity building support to Member States since its establishment through training, assessments/peer reviews, facilitation of sharing of experiences and good practice, development of toolkits and guidance and laboratory support. The different external evaluations of ECDC explicitly recommend to 'get closer to the countries'. A better understanding of the variety of public health systems, and a systematic assessment of Member States' vulnerabilities and needs will allow a more strategic investment of ECDC resources, to decrease the capacity and capability gaps across the EU.

Based on the annual calls launched in 2017, 2018 and their evaluation, ECDC set up a more comprehensive while streamlined approach, as discussed with the National Coordinators (NC) of the Coordinating Competent Bodies (CCBs) in the meeting that took place in September 2019.

The key activities performed in 2020 focused on two tracks and included:

- Internal ECDC planning in order to increase ECDC efficiency and efficacy in working with the EU/EEA Member States;
- Follow up on pending requests received through the annual calls 2017 and 2018.

## Results achieved in 2020

For clarity, the country support work in ECDC was re-named to *Targeted country support* (TCS), so that this particular area of work includes activities that target most in-need EU/EEA countries and highest priority topics. Thus, this is differentiated from the rest of the work that ECDC does for and with countries, e.g. scientific advice, training such as EPIET, MediPIET etc.

The following results were achieved in 2020 in each of the key areas of TCS:

### ***Internal ECDC planning to increase efficiency and efficacy in working with EU/EEA Member States:***

Work in 2020 focused on the development of a methodology to identify vulnerabilities and needs in Member States. Work started by defining the minimal information at country level required to identify vulnerabilities and needs and how to visualise this at the country level through country overviews. This work will be discussed with selected experts acting as 'peer reviewers' in 2021 in order to develop the IT solution to visualise the country overviews.

The second area of work was the development of a corporate approach to plan and conduct country visits.

Work was done to set up a process, IT tool and standard templates to be used for all country visits conducted by ECDC.

This resulted in a draft Policy and Internal Procedure for country visits. The Policy document that includes strategic aspects, such as how ECDC make country visits of most use to the EU/EEA countries, will be discussed with key external ECDC stakeholders in 2021.

### ***Follow up on pending requests received through the annual calls 2017 and 2018:***

A series of activities were planned in 2020 to meet the needs of Member States that requested support in the areas of Vaccine Preventable Infections (VPI)/vaccine acceptance and hospital-acquired infections (HAI). Unfortunately, because ECDC resources shifted towards activities addressing the COVID-19 pandemic, this support work was postponed. The respective Member States were contacted and expressed that they are still interested in short courses on:

- Providing support to frontline healthcare professionals to increase vaccination acceptance, including for COVID-19 vaccine. The curricula will be provided in two modules: a) vaccinology and b) communication for behaviour change;
- Providing support to hospital healthcare professionals on 'Investigation and control of outbreaks of healthcare-associated infections'. This will be provided as a virtual course during 2021.

## Indicators for coordinated country support

No.	Objective	Indicator	Target 2020	Verification	Result 2020
20	Provide coordinated support to Member States	Level of satisfaction of countries receiving support from ECDC	>75% of the countries satisfied	Survey with recipients of the support mechanism	In 2020, due to the COVID-19 crisis, it was not possible to provide any support to Member States in the areas originally foreseen (VPI, HAI). Thus, no survey was conducted. All the work focused on internally designing processes and shaping future approaches to improve efficiency in this area of work.

# Communication

## Health communication

### Context

The obligation to communicate results and make them available on the Centre's website is set out in Article 12 of ECDC's Founding Regulation. In addition, the EU and its Member States consider 'consistent communication messages to citizens based on robust and independent evaluation of public health risks'<sup>13</sup> a vital area of cooperation when responding to serious cross-border health threats. Being able to agree rapidly on a set of coherent, technically sound core messages about a threat can be a huge support to response efforts and ensure the alignment of risk communication messages in the EU.

### Results achieved in 2020

ECDC published 209 scientific publications in 2020, including rapid risk assessments and regular surveillance reports. The publication newsletter had 5 630 subscribers in 2020, which is 1 413 more than the previous year. ECDC is increasingly publishing data, graphs, maps and infographics as downloadable, copyright-free assets to allow partners and stakeholders to reuse ECDC content.

The social media team saw an unprecedented increase in traffic, as did the info mailbox managers. The increase is such that measuring in percentages is inutile. The ECDC press and media team added 300+ journalists to its list.

### Social media in 2020

#### *Twitter*

The number of followers on ECDC's corporate Twitter account (@ECDC\_EU) grew by 43 569 new followers, up from 29 745 followers in 2019 to 73 314 at the time of writing. The number of followers on ECDC's 'outbreaks' Twitter account (@ECDC\_Outbreaks) grew by 20 438 new followers. ECDC now has 121 000+ followers across nine Twitter accounts.

#### *Best performing content on Twitter*

Five best performing tweets sent from the corporate account – @ECDC\_EU between 1 November 2019 and 30 November 2020 were: first Council map (467K impressions, 118K engagements); face masks infographic (296K, 15K); Council map of Nov 5 (283K, 36K); long-term care facilities (LTCFs) report (185K, 665 eng); 29 Jan update (37K, 363).

#### *Facebook*

Facebook numbers showed the same spectacular trend. The number of likes/fans on the ECDC Facebook page increased from 14 146 in December 2019 to 46 992 in December 2020, an increase of 32 446, while the number of followers of the page went from 14 516 in December 2019 to 234 019 in December 2020 – an increase of 219 503. A normal reach for a non-paid Facebook posting is 10% of the number of likes/fans, but for the ECDC Facebook page, the reach was sometimes up to 250 000, or 550%. All ECDC social media accounts are verified as a trusted source, which reinforces their credibility.

#### *Best performing content on Facebook*

A total of 479 posts were published, reaching 25 million users. The most popular ten posts since 1 November 2019 were: the face mask video (276K reach, 34K video views); trainee call (253K); children and COVID-19 RRA (266K); first Council map (245K); 9th COVID-19 RRA (242K); face mask infographic (219K); Council maps from 29 October (205K) and 12 November (202K); daily updates of 23 April (180K) and 25 April (170K).

**Figure 11. Evolution of the number of Facebook followers December 2019 - December 2020**



**YouTube**

In 2020, ECDC published 53 videos, getting 2.5 million impressions (video thumbnails shown to users) and 177K views. The current subscriber count is 2.22K, up by 1.6K compared with 2019. Of these, some 14 videos and animations were COVID-19 related.

**Press and media in 2020**

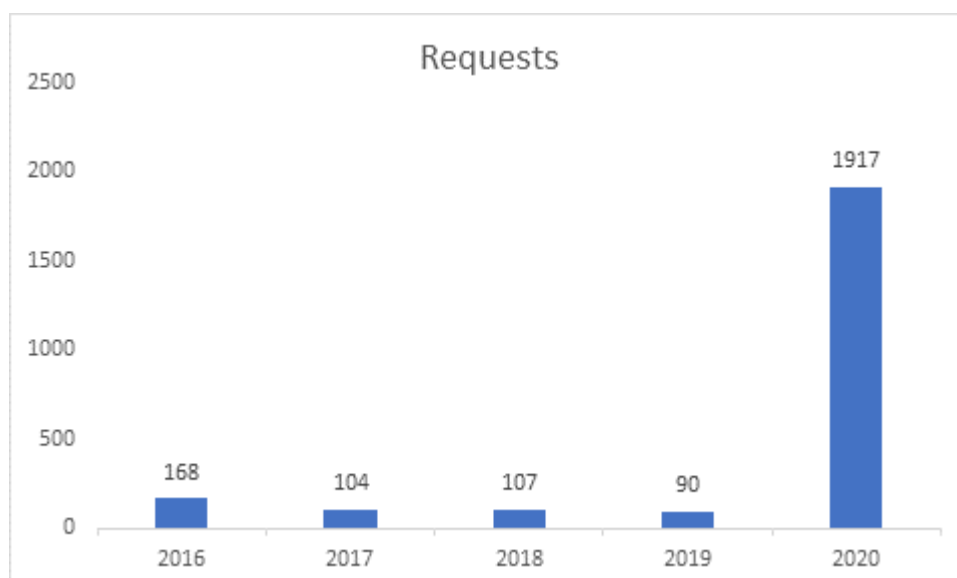
ECDC maintains a professional press office service. In 2020, the Centre intensified its work with health journalists. In close cooperation with the European Commission, the Health Security Committee and the WHO Regional Office for Europe, ECDC provided EU-wide communication response to public health issues.

**Press requests**

The number of requests in 2020 from various media sources totalled 1 917. These requests ranged from interviews with experts (of which there were 723 covering newspapers, television, and radio) to written questions (1 093). Experts gave 224 interviews over the course of the year, and the PHE Response team gave 1 003 written responses.

The requests came from a wide range of sources, from major international news outlets and wire agencies, to fact-checking organisations. Geographically, 1 690 requests originated in Europe. Over the entire year the largest number of requests came from the BBC (89 – radio, television, and online news articles), CNN (34), Reuters (33), Politico (30), Deutsche Welle (28), Bloomberg (27) and Euronews (26).

**Figure 12. Number of requests to the press office 2016-2020**



## Web

The ECDC website saw an unprecedented amount of traffic in 2020. Traffic peaked in March, when more than 8 million page-views were recorded in one month. That’s nearly as many page views as the website had recorded in total over the previous eight years.

The highest number of page views in one day was recorded on 12 March with 391 983 views.

Traffic dipped at the start of summer following the peak in spring but increased again in early autumn with the rise of cases across Europe – matching a similar trend to the pandemic.

Overall, 18 330 149 website sessions were recorded during 2020, compared with 614 742 in 2019. There were 572 051 pdf downloads in 2020 compared with 176 274 in 2019. The most downloaded publications in 2020 were:

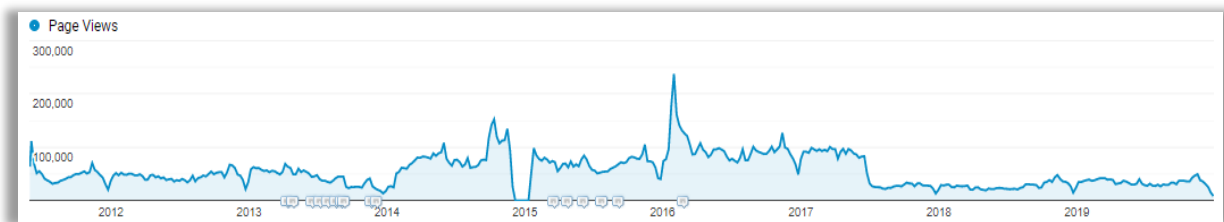
- Rapid risk assessment: Outbreak of novel coronavirus disease 2019 (COVID-19): increased transmission globally – fifth update
- Guidance for wearing and removing personal protective equipment in healthcare settings for the care of patients with suspected or confirmed COVID-19
- Rapid risk assessment: Novel coronavirus disease 2019 (COVID-19) pandemic: increased transmission in the EU/EEA and the UK – sixth update
- Guidelines for the use of non-pharmaceutical measures to delay and mitigate the impact of 2019-nCoV
- Rapid risk assessment: Coronavirus disease (COVID-19) pandemic: increased transmission in the EU/EEA and the UK – seventh update

Additionally, ECDC produced a number of downloadable datasets on COVID-19 in 2020 and these were extremely popular. The most viewed dataset was the daily update on distribution of COVID-19 cases worldwide, which received 1 351 800 page-views.

## Pre COVID-19

Since monitoring began in June 2011 and as of 1 January 2020, 9 376 669 page views have been recorded on the ECDC website.

**Figure 13. Page views June 2011-31 December 2019**



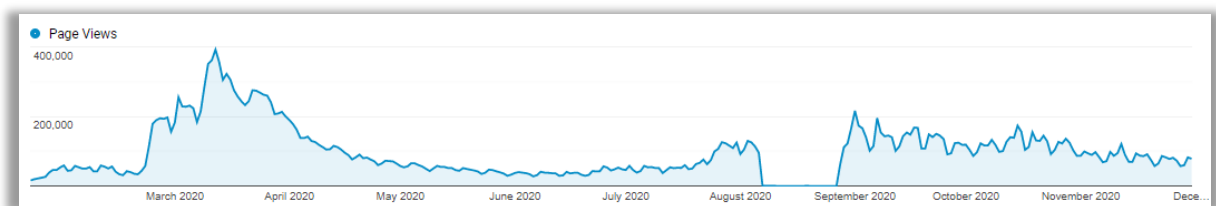
## Post COVID-19

Since the start of the PHE in January 2020, and as of 31 December 2020, there have been 32 187 673 page views on the ECDC website.

**Figure 14. Page views 1 January-31 December 2020**



**Figure 15. Page views per month 2020**



Since 22 January, the daily COVID-19 situation update pages have been the most popular pages on the ECDC website. With 17 844 255 page-views between them, they constitute more than half of the 30 million page-views recorded since January.

The COVID-19 landing page is the 3rd most popular page with 2 349 401 page-views – more than the number of views the ECDC website received in total in 2019.

The weekly Council Recommendation (traffic light) maps were only launched in October, but are already in the top 10 content and increasing in popularity.

**Table 5. The most popular web pages in 2020**

Rank	Page	Views
1.	Situation update EU/EEA and UK	10,438,378
2.	Situation update worldwide	7,405,877
3.	COVID-19 landing page	2,349,401
4.	ECDC homepage	1,483,985
5.	Downloadable data on COVID-19 cases worldwide	1,304,775
6.	COVID-19 situation updates	875,421
7.	Current risk assessment on COVID-19	722,783
8.	Weekly Council Recommendation maps	595,415
9.	COVID-19 Q&A	494,409
10.	Weekly country overviews	397,980

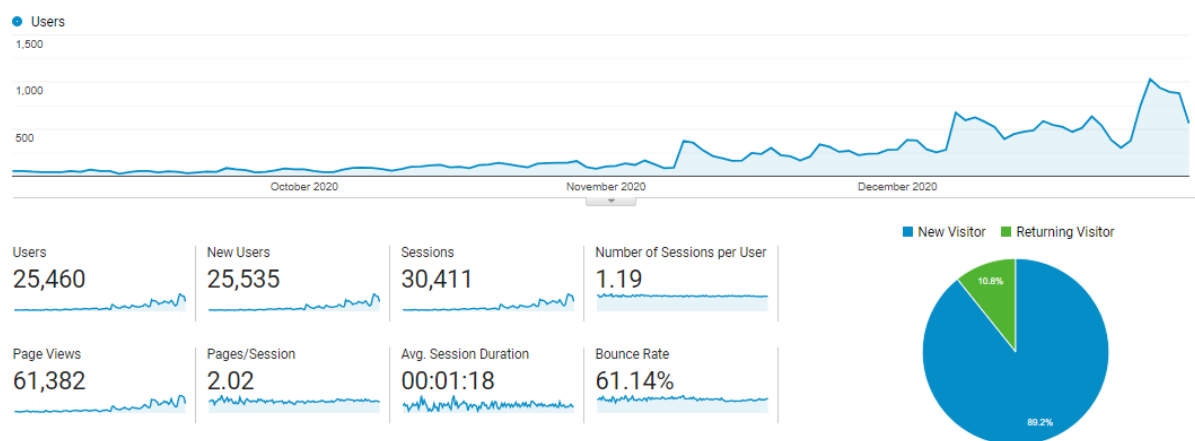
### Launch of the EVIP website

ECDC launched the European Vaccination Information Portal (EVIP) in April 2020 as a cross-agency/EU project, 'An initiative of the EU'. It was developed in close collaboration with the Directorate-General for Health and Food Safety and the European Medicines Agency (EMA) in the context of the Council Recommendation on strengthened cooperation against vaccine-preventable diseases (adopted in Dec. 2018) in which ECDC was tasked to establish the website.

The website is available in all EU/EEA languages and is written for non-technical audiences.

As more content was added on COVID-19, the site gradually became more and more popular throughout 2020. 30 411 sessions and 61 382 page views were recorded on the EVIP website in the period of September – December 2020. The most popular pages were the content on COVID-19, COVID-19 vaccines and information on how vaccines are approved in the EU.

**Figure 16. Web statistics EVIP website September–December 2020**





## Audiovisuals and infographics

ECDC published 18 infographics and posters on COVID-19 to date, covering issues such as hand-washing, the use of face masks, contact tracing and COVID-19 in long-term care facilities.

As of 31 December 2020, these infographics received 99 831 page-views altogether and the COVID-19 infographics landing page received 38 148 page views.

ECDC also published 14 videos and animations on COVID-19 on the website as of 31 December 2020. Since 18 March 2020, the COVID-19 videos page received 10 481 page views, including more than 6 945 from users across Europe.

## Marking world health days

On the occasion of World Tuberculosis Day, World Hepatitis Day and World AIDS Day, ECDC used the opportunity to inform interested public and technical experts alike about the work in the area and shape respective (public health) messages. As in previous years, ECDC, in collaboration with the WHO Regional Office for Europe published joint enhanced surveillance reports on tuberculosis and HIV/AIDS, regular influenza updates and a joint press release with WHO prior to the World AIDS Day.

In support of world health days, ECDC developed a number of communication campaigns, using traditional media, social media, videos, toolkits, infographics and PowerPoint materials that can be easily adapted to local languages and practices.

## Information outputs other than press and web

In response to a request by the Commissioner Health and Food Safety, ECDC developed a new output, the weekly COVID-19 policy brief. Between September when the output was launched and the end of December, 16 issues were delivered to the Commissioner's team, and the series will continue into 2021. The objective of this output is to present short and easy-to-read analysis of key indicators, trends and developments of the COVID-19 pandemic in the EU/EEA, for use by the Commissioner's Cabinet. Along with latest epidemiological trends and updates on measures taken by Member States, the policy brief informs the Commissioner about the latest outputs by ECDC, with a particular focus on policy implications.

## Indicators for health communication

No.	Objective	Indicator	Target 2020	Verification	Result 2020
21	Ensure that ECDC's scientific and technical outputs are timely, easily available, impactful, reusable and adjusted to the needs of our target audiences	Usage of the ECDC web portal and social media channels  Perception of timeliness, usability and usefulness of ECDC outputs	+5% page views on web portal; +10% followers on Twitter  Favourable perception of at least 75% respondents	Web and social metrics used for verification  Stakeholder survey and feedback collected through annual NFP meeting for communication	18 330 149 website sessions were recorded for 2020, compared with 614 742 in 2019.  The number of followers on ECDC's corporate Twitter account (@ECDC_EU) grew by 43 569 new followers, up from 29 745 followers in 2019 and a total of 73 314.  Not available for 2020
22	Consolidate the reputation of ECDC as an independent, transparent agency that produces and disseminates high quality scientific content	Increase of media articles in Europe referencing ECDC and its experts	+ 5% compared to previous year	Media monitoring  <i>(Indicators are aligned with Communication Strategy)</i>	Not available for 2020  A change in service provider meant that the 2020 numbers are not comparable to the 2019 ones.
23	Support sharing of knowledge, data and analysis among stakeholders with a focus on strengthening communication capacity and preparedness in EU Member States	Favourable perception of ECDC communication capacity support activities by NFPs (materials, workshops, meetings, country visits, training activities) in the area of risk and crisis communication	Favourable perception of at least 75% respondents	Stakeholder survey and feedback collected through annual NFP meeting for communication  <i>(Indicators are aligned with Communication Strategy)</i>	Not available for 2020

## Eurosurveillance

### Context

*Eurosurveillance* is ECDC's scientific journal. It is recognised internationally as a leading platform for peer-reviewed publications on the epidemiology, surveillance, prevention and control of communicable diseases, with a focus on Europe. The Journal is published weekly at [www.eurosurveillance.org](http://www.eurosurveillance.org). All articles are open access, and there are no author fees.

### Results achieved in 2020

*Eurosurveillance* published 204 articles (114 rapid communications, published within 1 to 8 weeks of submission, 90 regular articles) and 29 other items (editorials, letters). The Journal remained an attractive outlet for public health experts and scientists, as reflected by the number and quality of submissions. In 2020, the total number of submissions reached an all-time high. With 2 155 (2019: 761; 2018: 727; 2017: 901) and an average of 180 per month (2019: 65; 2018: 61) the number of submissions was three times higher than in previous years. Conversely, the 2020 acceptance rate of 11% was lower (2019: 25%), because of a higher workload and a need to be selective. Europe remained the geographical focus of submitted and published articles, even though a minority of accepted articles in 2020 were also from non-European countries as they were of general relevance for public health and/or impacted Europe. *Eurosurveillance* received submissions from 31 of the 33 countries represented on its Board, and from some 85 countries overall.

About 560 experts acted as peer reviewers and dedicated time to support the decision-making process by sharing their views and comments on articles before publication.

For nine years in a row, *Eurosurveillance* has consistently ranked as one of the top journals in its field. Its impact factor reached 6.4, even though this was lower compared with the previous two years (Figure), *Eurosurveillance* ranked sixth among infectious disease journals. In the SCImago journal rank, *Eurosurveillance* featured in the top 25 percent in four categories (for all categories listed). The Scopus-based CiteScore ranked *Eurosurveillance* eight among 516 journals in the medicine category 'public health, environmental and occupational health' (2019: 13/489).

The journal continued to be active on Twitter where it hit 15 000 followers at the end of 2020; on the professional network LinkedIn, the number of connections also continued to grow steadily.

The majority of articles published in 2020 were related to the COVID-19 pandemic, but other topics such as the occurrence of human West-Nile virus cases in Germany and the Netherlands, relevant world health days (WTBD, EEAD, WAD etc) and events (ECDC 15 anniversary) were also covered.

Already on 23 January, *Eurosurveillance* published two articles and an editorial note related to the COVID-19 pandemic that was declared later in March: *Real-time tentative assessment of the epidemiological characteristics of novel coronavirus infections in Wuhan, China, as at 22 January 2020* and *Detection of 2019 novel coronavirus (2019-nCoV) by real-time RT-PCR* authored by experts from Hong Kong and by an international group of renowned virologists (including from Germany, the Netherlands and the United Kingdom), respectively. Together with a description of some of the first cases from France, published on 13 February, these articles were among the earliest publications in scientific journals presenting data on SARS-CoV-2/COVID-19 testing and epidemiology. Two dedicated online collections, 'Children and COVID-19' and 'COVID-19' comprise 15 and 130 articles and other items respectively.

A special issue, published in November, focused on 'Point-of-care testing and its impact on surveillance of communicable diseases and public health', a highly relevant and timely topic covered also in the 2019 *Eurosurveillance* seminar.

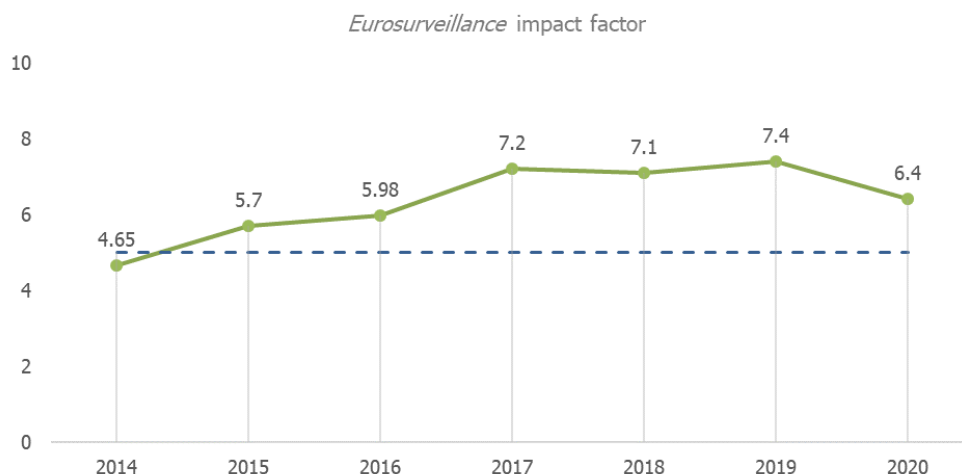
A contributor survey (online questionnaire and interviews) was launched and conducted as planned in the first quarter of 2020. The highly positive results mirroring those featured in the report of the Third ECDC External Evaluation were shared within ECDC, among board members and via a publication in *Eurosurveillance* in November. The team held three virtual consultation meetings with the editorial board from September to October to obtain further input for the *Eurosurveillance* strategy for 2021-27, that was presented at the virtual board meeting in early December.

The *Eurosurveillance* editors engaged, during the year, in ECDC training and capacity building activities such as in the ECDC fellowship programme and participated in several international virtual conferences as moderator or speaker presenting challenges of editors in times of a pandemic.

## Indicators for Eurosurveillance

No.	Objective	Indicator	Target 2020	Verification	Result 2020
24	Consolidate the high-level profile and attractiveness of <i>Eurosurveillance</i>	Impact factor for <i>Eurosurveillance</i> and journal rank positioning in first quartile	IF >5	Journal Citation Reports, SCImago	IF = 6.4 (see Figure 17) CiteScore ranked <i>Eurosurveillance</i> 8 among 516 journals in its category. In the SCImago journal rank, <i>Eurosurveillance</i> featured in the top 25% in four categories (medicine general, virology, public health, environmental and occupational health).
		Articles accepted for publication from countries represented on the <i>Eurosurveillance</i> board	Articles received from authors of at least 15 countries	EU/EEA and candidate countries	19 countries published, 31 submitted and 14 countries accepted in 2020

**Figure 17. Eurosurveillance impact factor**



## Disease programmes and their areas of work

From 1 January 2020, ECDC is organised in four permanent disease programmes (DPs):

- The Antimicrobial Resistance and Healthcare-Associated Infections (ARHAI) Programme;
- The Emerging Food and Vector-Borne Diseases (EFVED) Programme, covering emerging and vector-borne diseases, food- and waterborne diseases, zoonoses, and legionnaires' disease;
- The STI, Blood-Borne Viruses and TB (SBT) Programme, covering HIV, sexually transmitted infections, viral hepatitis, tuberculosis and substances of human origin (SoHo);
- Vaccine Preventable Diseases and Immunisation (VPI) Programme.

During the year, a fifth temporary disease programme, the COVID-19 and Influenza (CAI) Programme was set up to address all non-urgent issues related to COVID-19 and influenza not covered by the first line PHE organisation and other organisational entities. Below is detailed information on areas of work carried out by the various DPs.

### Antimicrobial resistance and healthcare-associated infections (in the ARHAI Programme)

#### Context

Antimicrobial resistance (AMR) and healthcare-associated infections (HAI) are high on the European and global agenda (WHO global action plan on AMR<sup>i</sup>) as various AMR threats keep increasing in number and intensity. In 2018, ECDC produced revised estimates showing that in the EU/EEA each year, 33 000 people die from infections due to bacteria resistant to antibiotics<sup>ii</sup>. Since 2014, stakeholders have asked for intensified efforts on the surveillance, prevention and control of AMR and HAI. In 2017, the European Commission adopted the European One Health Action Plan against Antimicrobial Resistance. European initiatives<sup>iii</sup> have focused on improved surveillance, the prudent use of antimicrobials, infection prevention and control, and the need for new antibiotics. The alarming trend of increasing resistance to last-line antimicrobial agents in gram-negative bacteria requires close surveillance and concerted efforts at all levels. Despite recent successes, awareness of the need for prudent use of antibiotics and of infection prevention and control measures, both among the general public and healthcare professionals, is poor in many Member States. Moreover, guidance documents, examples of best practice, and success stories about the prevention and control of AMR and HAI are rarely shared between Member States.

#### COVID-19 work in ARHAI

Most ARHAI staff members were involved in COVID-19 support work in 2020. The team mostly contributed with expertise in infection prevention and control (IPC) as well as surveillance of COVID-19 in healthcare.

In particular, ECDC published and regularly updated its guidance on IPC and preparedness for COVID-19 in healthcare settings. ECDC also adapted its protocols for surveillance of HAI, to include COVID-19. Because of the particular impact of COVID-19 on long-term care facilities (LTCFs), ECDC made a special effort to provide resources on COVID-19 surveillance and IPC guidance in LTCFs<sup>iv</sup>. Data collection in LTCFs will start in 2021.

#### Results achieved in 2020

ECDC published its updates of surveillance data on AMR and antimicrobial consumption. These confirmed that AMR remained a challenge for the EU/EEA. While antimicrobial consumption overall continued to slowly decrease in the EU/EEA, there were still large variations between countries, both in the community and the hospital sector, and antimicrobial consumption still increased in some countries. Resistance to carbapenems – a last-line group of antibiotics – remained a concern, with several countries reporting carbapenem resistance percentages above 10% for *Klebsiella pneumoniae*, and carbapenem resistance was also common in *Pseudomonas aeruginosa* and *Acinetobacter* species, and at much higher percentages than in *K. pneumoniae*. Resistance to vancomycin – another last-line antibiotic – in *Enterococcus faecium* bloodstream infections almost doubled between 2015 and 2019.

<sup>i</sup> Global action plan on antimicrobial resistance, WHO World Health Assembly, May 2015, available from: [http://apps.who.int/iris/bitstream/10665/193736/1/9789241509763\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/193736/1/9789241509763_eng.pdf)

<sup>ii</sup> [https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(18\)30605-4/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(18)30605-4/fulltext)

<sup>iii</sup> [https://ec.europa.eu/health/amr/sites/amr/files/amr\\_action\\_plan\\_2017\\_en.pdf](https://ec.europa.eu/health/amr/sites/amr/files/amr_action_plan_2017_en.pdf)

<sup>iv</sup> <https://www.ecdc.europa.eu/en/all-topics-z/coronavirus/threats-and-outbreaks/covid-19/prevention-and-control/LTCF>

On 18 November, in conjunction with WHO's World Antimicrobial Awareness Week (18–24 November 2020), ECDC organised the 13th European Antibiotic Awareness Day to raise awareness about the threat to public health from antibiotic resistance, emphasising the importance of prudent antibiotic use and improved IPC practices to significantly reduce AMR, in particular during the COVID-19 pandemic.

Over recent years, EU/EEA countries have reported an increasing number of AMR and/or HAI events and outbreaks to ECDC via the EPIS platform. The work of the European Antimicrobial Resistance Genes Surveillance Network (EURGen-Net) for the whole genome sequence (WGS)-based surveillance of multidrug-resistant bacteria of public health importance continued in 2020. As of 16 December 2020, a total 4 217 *K. pneumoniae* or *Escherichia coli* isolates were reported from 527 hospitals from all countries (all EU Member States, Iceland, Norway, as well as Bosnia and Herzegovina, Kosovo<sup>i</sup>, Montenegro, North Macedonia, Serbia, Turkey and the UK) participating in the carbapenem- and/or colistin-resistant Enterobacteriaceae (CCRE) survey, and analysis of these isolates, including WGS, started.

In combination with the EPIS platform, EURGen-Net also enabled high-risk, extensively drug-resistant bacterial clones to be identified and gain a better understanding of their transmission pathways such as cross-border spread of NDM-1- and OXA-48-producing *K. pneumoniae*<sup>ii</sup> and increase in OXA-244-producing *E. coli* in the EU/EEA and the UK<sup>iii</sup>. ECDC also produced an overview of the epidemiological situation, laboratory capacity and preparedness in Member States for carbapenem-resistant *Acinetobacter baumannii*<sup>iv</sup>, which showed that 16 countries reported regional spread, interregional spread or an endemic situation, but that there was little progress in the capacity for surveillance and containment compared with previous surveys.

ECDC organised an expert meeting on country visits to discuss AMR issues, with the aim of updating and revising its assessment tool. The country visits conducted jointly with the Directorate-General for Health and Food Safety from a one-health perspective that were planned for 2020, were postponed and will resume after the COVID-19 pandemic.

ECDC continued to contribute to the Transatlantic Taskforce on Antimicrobial Resistance (TATFAR), a collaborative effort of the EU, the United States, Canada and Norway in the field of AMR. ECDC also contributed to the EU joint action on AMR and healthcare-associated infections (EU-JAMRAI)<sup>v</sup>.

## Emerging and vector-borne diseases (in the EFVED Programme)

### Context

Emerging and vector-borne diseases<sup>vi</sup> are challenging due to the complexity of their transmission patterns and their potential to cause large and sudden outbreaks. In recent years, several vector-borne disease outbreaks occurred in Europe caused by endogenous mosquitoes that spread emerging diseases, spread of invasive mosquitoes, and spread of ticks into new areas.

Most vector-borne diseases follow complex epidemiological patterns, such as seasonality and pathogen persistence in reservoir hosts and/or vectors without the occurrence of human disease. They can quickly emerge, re-emerge, or be introduced if conditions are suitable. During the transmission season, ECDC publishes maps of cases across Europe, for example weekly maps of West Nile virus infections, in order to provide timely information to national health authorities on the need of blood transfusion testing in affected areas. ECDC also collects data to help public health experts understand the factors that could trigger sudden outbreaks.

### COVID-19 work in EVD

Four EVD staff in EFVED were involved in COVID-19 PHE support work in 2020, as a PHE Strategic Analyst and in the technical group functions of surveillance, epidemic intelligence, modelling and response.

i This designation is without prejudice to positions on status and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

ii <https://www.eurosurveillance.org/docserver/fulltext/eurosurveillance/25/20/eurosurv-25-20-2.pdf>

iii <https://www.ecdc.europa.eu/sites/default/files/documents/RRA-E-coli-OXA-244-producing-E-coli-EU-EEA-UK-since-2013.pdf>

iv <https://www.eurosurveillance.org/docserver/fulltext/eurosurveillance/25/45/eurosurv-25-45-3.pdf>

v EU-JAMRAI (<https://eu-jamrai.eu/>) brings together 44 partners and more than 30 stakeholders to foster synergies among Member States by developing and implementing effective 'One Health' policies to fight the rising threat of AMR and reduce healthcare-associated infections.

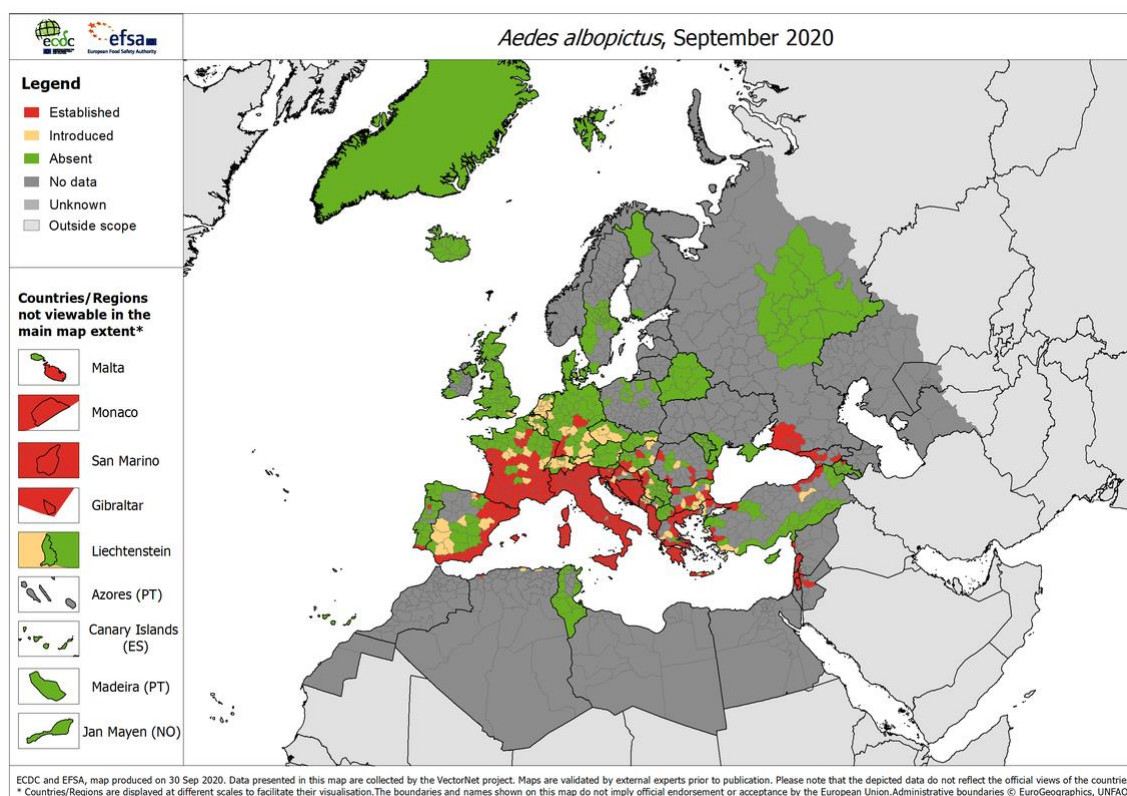
vi The term 'disease vector' usually refers to arthropods (mosquitoes, flies, sandflies, lice, fleas, ticks, and mites) that carry and transmit infectious microorganisms into other living organisms.

## Results achieved in 2020

ECDC closely monitored the 10th and 11th outbreaks of Ebola virus disease in the Democratic Republic of the Congo (DRC), both declared over by the end of 2020. ECDC deployed experts to DRC in January and February in order to support DG ECHO and WHO in assisting the country's response measures.

ECDC continued publishing updated distribution maps of European disease vectors on its website (e.g. mosquitoes, ticks and sandflies). Data for maps were collected through the VectorNet project, which is jointly funded by ECDC and EFSA. The maps provide ECDC stakeholders, the scientific community and the general public with updated information on the distribution and surveillance of disease vectors for animals and humans. The maps can also be used to document the geographical spread (e.g. to previously non-affected areas) of several invasive species over time.

**Figure 18. Map produced by ECDC and EFSA: distribution of *Aedes albopictus* in Europe in 2020**



In 2020, VectorNet published a technical report on *Vector control practices and strategies against West Nile virus* and organised two webinars: *VectorNet Maps: What are they and how to use them (15-28 Feb 2020)* and *Surveillance of introduction of vector species at points of entry (11 December 2020)*.

The Centre continued developing modelling tools to 1) appraise and compare vector control strategies against West Nile fever in Europe, and 2) to support the decision-making process for surveillance and vector control of dengue, chikungunya and Zika virus infections in Europe. The first model is at user's testing stage, while the second one on viruses that are transmitted by *Aedes* mosquitoes was finalised and will be shared with relevant stakeholders in 2021.

From June to December 2020, ECDC published weekly West Nile Virus (WNV) epidemiological updates during the WNV transmission season, including the geographical distribution of human cases in the EU/EEA and EU neighbouring countries and of outbreaks among equids and birds in the EU/EEA.

Following the European Parliament resolution on Lyme disease adopted in November 2018 and the first notifications of Lyme neuroborreliosis in TESSy in 2019, ECDC started a project in 2020 to support Lyme neuroborreliosis (LNB) surveillance and reporting in Member States. Due to the COVID-19 pandemic, increased workload hampered individual consultations with the Member States. Therefore, some deliverables (i.e. plan for LNB surveillance and reporting improvement, plan and options appraisal on the standardisation and validation of laboratory diagnostic tests in the context of Lyme borreliosis, including LNB) will be subject to further discussions between ECDC and Member States, and consensus versions shall be made available in 2021. Within the project, the ECDC communication toolkit for tick-borne diseases has also been updated.

A project to review the epidemiological situation of leishmaniasis in the EU and its neighbourhood started in June 2020 and will be finishing in February 2021. The aim was to review the epidemiology of leishmaniasis in the EU and the neighbouring countries, and to describe surveillance, prevention and control activities in place. The project is conducted in collaboration with EFSA, WHO EURO and OIE. The outputs will be a technical report and one or more peer-review publications. Distribution maps of leishmania species will be published through the VectorNet project.

Most activities of the EVD Lab-Net planned in 2020 were cancelled due to COVID-19. The EVD Annual Network Meeting was also postponed to 2021 due to COVID-19. A virtual EVD Disease Network Coordination Committee was organised in November 2020 to discuss the ongoing work of the DP in 2020 and the workplan 2021-2022.

ECDC published three peer-reviewed publications on EVDs in scientific journals on the topics of prevention of human rabies in the EU/EEA, West Nile fever in the EU, and risks related to chikungunya infections among EU travellers.

## Food- and waterborne diseases, zoonoses, and Legionnaires' disease (in the EFVED Programme)

### Context

Food- and waterborne diseases and Legionnaires' disease often cause clusters and outbreaks due to contaminated food, water, environment, or infected animals and humans. The potentially large economic impact on human health, productivity, trade, and the tourist industry makes the early detection and investigation of outbreaks important. In order to identify public health risks and implement timely control and prevention measures, the European public health community relies on multidisciplinary collaboration and regular communication between the food safety, veterinary, environmental and healthcare sectors. For this reason, the European Food Safety Authority (EFSA) is a key partner of ECDC. A key objective is to improve EU-level surveillance to ensure timely public health actions. New technologies, for example looking at pathogens' genomes through whole genome sequencing (WGS), allow the detection of cases potentially linked to a common source. WGS also has an enormous potential to improve the response to cross-border health threats through strengthening the public health microbiology capacity of Member States through external quality assurance schemes and multi-disciplinary workshops for preparedness building.

### COVID-19 work in FWD

Three of the FWD staff in EFVED were involved in COVID-19 support work in 2020, in the technical group functions of surveillance and response. The team also contributed with FWD expertise in assessing the risk of COVID-19 from food.

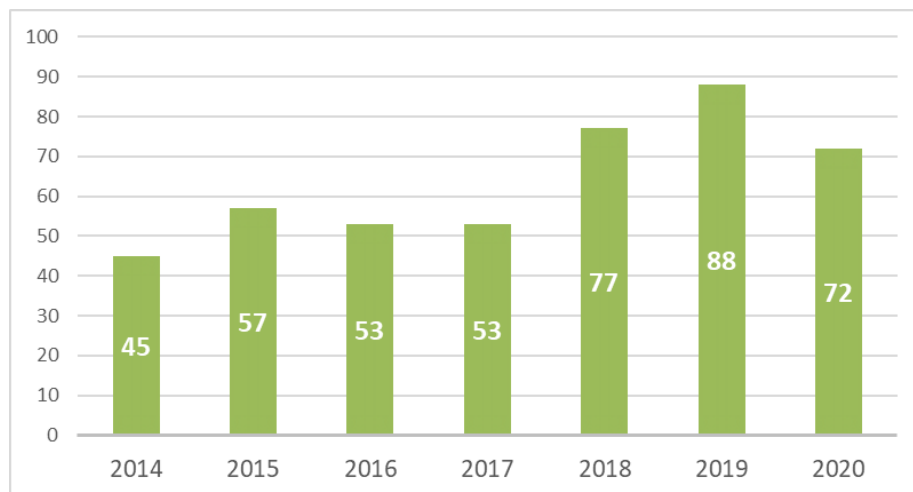
### Results achieved in 2020

In 2020, ECDC and EFSA worked on two reports: 1) the EU One Health 2019 zoonoses report, and 2) the annual report on antimicrobial resistance in zoonotic and indicator bacteria from humans, animals and food in 2018/2019. ECDC, EFSA and EMA also jointly worked on the third JIACRA report, where FWD contributed with AMR data on *Salmonella* and *Campylobacter*. The trend of confirmed human cases of campylobacteriosis and salmonellosis in the EU was stable during 2015–2019. Shiga toxin-producing *Escherichia coli* (STEC) infections in humans were the third most common reported zoonosis in the EU and increased from 2015 to 2019. According to the AMR report (2018/2019 data), resistance to fluoroquinolones (such as ciprofloxacin) is so high in *Campylobacter* bacteria that these antimicrobials are no longer effective in the treatment of severe campylobacteriosis cases and for *Salmonella* bacteria, spread of multidrug-resistant clones, sometimes with ESBL, is of concern.

Urgent inquiries (UI) are requests launched by participating countries or ECDC to assess the multi-country dimension of events occurring at the national level. They were launched and coordinated through the EPIS-FWD platform. In 2020, 72 (88 in 2019) urgent inquiries were initiated by 16 participating countries<sup>i</sup> and one was initiated by ECDC (vibriosis). UIs were related to salmonellosis (33), listeriosis (13), verocytotoxin-producing *Escherichia coli* (VTEC) infection (10), hepatitis A (5), shigellosis (2), campylobacteriosis (2), yersiniosis (2), botulism (1), norovirus infection (1), psittacosis (1), tick-borne encephalitis virus (TBEV)(1), and vibriosis (1). On average, 10 countries replied to a single UI.

<sup>i</sup> Of a total of 52 network countries

**Figure 19. Urgent inquiries related to food- and waterborne diseases, 2014–2020**

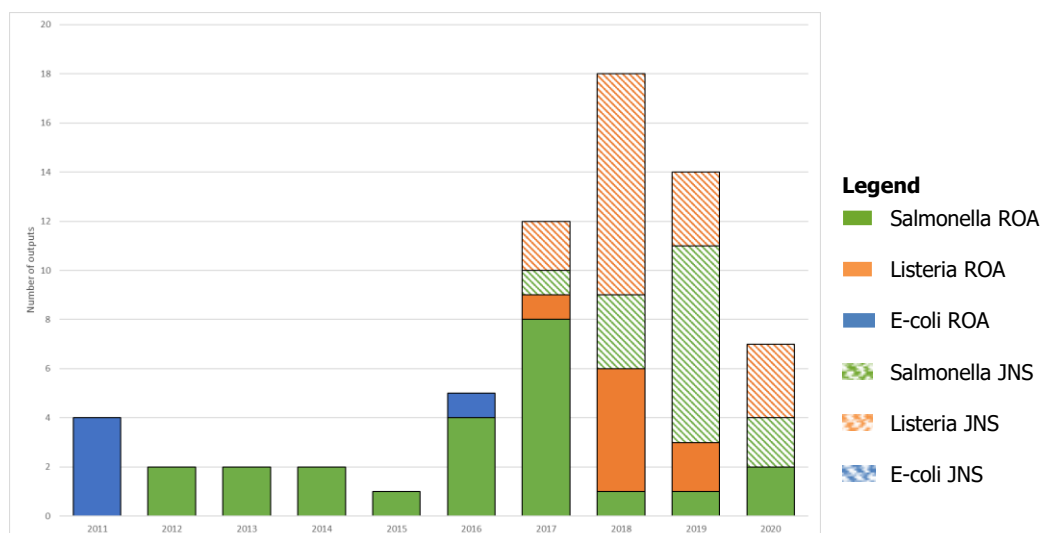


Cooperation with EFSA continued through weekly teleconferences to monitor the evolution of multi- country food-borne events and produce joint public health risk assessments related to food. Timely communication to risk managers is aimed with joint ECDC–EFSA notification summaries, which are working documents made available to all EWRS and RASFF<sup>i</sup> contact points. Joint rapid outbreak assessments are published by ECDC and EFSA and are recognised as helpful information by risk managers in the Commission and Member States when tracking and controlling the source of an outbreak. In 2020, ECDC published two joint rapid outbreak assessments with EFSA: a third update on multi-country *Salmonella* Enteritidis outbreak linked to eggs and one on *S. Typhimurium* & *S. Anatum* infections linked to Brazil nuts.

### A multi-country *Salmonella* Typhimurium and *S. Anatum* outbreak linked to Brazil nuts

Between August 2019 and October 2020, a multi-country outbreak with 123 cases of *S. Typhimurium* ST19 and one case of *S. Anatum* affected three European Union countries, the United Kingdom and Canada. Of all cases, 105 were reported in the UK (including the *S. Anatum* case), 14 in France, three in Luxembourg and one each in the Netherlands and Canada. A case-control study in the UK, patient interviews in the UK, France and Luxembourg, and microbiological/traceability investigations indicated Brazil nuts from Bolivia and nut bars as likely vehicles of infections.

**Figure 20. ECDC–EFSA multi-country rapid outbreak assessments and joint notification summaries 2011–2020**



ROA: rapid outbreak assessment; JNS: joint notification summary

<sup>i</sup> Rapid Alert System for Food and Feed



In 2020, the routine enhanced surveillance continued for listeriosis through WGS. By the end of 2020, nine countries were submitting data routinely, and additional eight countries as part of outbreak investigations. In 2020, 28 (possible) multi-country clusters of *Listeria monocytogenes* genotypes were detected in the EU/EEA. Of these, 16 were detected by Member States through an UI and 12 were detected by ECDC.

Preparatory work on implementing a joint 'One Health' approach between ECDC and EFSA for the collection and analysis of WGS data from human and food isolates continued in 2020. In the future, ECDC and EFSA databases will remain separate, but exchange data in real time to perform searches in order to detect sequence identities among human and non-human isolates.

In 2020, a tripartite, multi-sectorial scientific study, the European *Listeria* Typing Exercise (ELITE) between ECDC, EFSA and ANSES (the French Agency for Food, Environmental and Occupational Health & Safety) was finalised and the technical report is expected to be published in early 2021. The study combines data from EU level baseline survey on *Listeria* contamination in ready-to-eat foods and data from human *Listeria* infections during the same time period. The study highlighted the potential public health risk related to consumption of ready-to-eat fish products, where *Listeria monocytogenes* contamination is relatively common albeit at low bacteria levels.

In 2020, ECDC outsourced the organisation of five FWD external quality assessment (EQA) schemes: *Salmonella* (tenth EQA), Shiga-toxin producing *E. coli* (ninth EQA), *Listeria monocytogenes* (seventh EQA), antimicrobial susceptibility testing (AST) for *Salmonella* (sixth EQA) and AST for *Campylobacter* (sixth EQA). The EQA schemes on typing now also include a cluster analysis to support laboratories that want to develop their whole genome sequencing (WGS) capabilities and the EQA schemes on AST allow reporting of resistance predicted from WGS. The majority of the participating laboratories could complete cluster analyses using data from WGS with very high performance and those reporting predicted resistance from WGS had 100% correct results. The typing EQAs also provided information about the comparison of results using different molecular methods.

The first year of a contracted EQA scheme to support European surveillance of Legionnaires' disease was successfully completed in 2020. A report providing an analysis of the performance of participating laboratories from 28 EU/EEA countries was published on the ECDC website<sup>i</sup>. The scheme covered detection/isolation, identification, enumeration and quantification of *Legionella* spp. and further characterisation of *L. pneumophila* by serogroup and sequence-base typing, for both clinical and environmental samples in an outbreak scenario.

The National Focal Points for food- and waterborne diseases met virtually in March to exchange experiences and discuss potential cross-border spread of *Campylobacter* infections. Later in the year, Sweden launched an UI and the first, WGS-verified cross-border spread of *Campylobacter* infections by specific clone was confirmed involving at least four countries (Sweden, Denmark, Norway and Luxembourg). A virtual network meeting also took place with FWD-Net and the EU reference laboratory for antimicrobial resistance in April, replacing parts of the planned fourth joint physical meeting.

Although the European Legionnaires' Disease Surveillance Network (ELDSNet) annual meeting was cancelled due to COVID-19, two virtual meetings of the ELDSNet coordination committee were held. Data reported under 2020 by Member States for the year 2019 indicated that Legionnaires' disease in the EU/EEA remains at the highest levels reported and similar to 2018, with 2.19 notifications per 100 000 population.

The daily surveillance of the travel-associated Legionnaires' disease (TALD) scheme continued under 2020 with cases reported 'near real-time' by the ELDSNet network. With reduced travel in Europe, the number of reported TALD cases decreased to a third of that observed in 2019. There were no TALD-related outbreaks detected through the European surveillance scheme, but cases and clusters notified continued to be investigated by ELDSNet members according to the operating procedures with accommodation sites assessed for any *Legionella* risk.

## HIV, sexually transmitted infections, and viral hepatitis (in the SBT Programme)

### Context

Sexually transmitted infections (STI), viral hepatitis and HIV have a tendency to persist as silent epidemics (several persisting in chronic infectious states), resulting in challenges for disease detection, burden estimates, and prevention and control. In some circumstances, STI affect marginalised and discriminated members of communities. Dedicated programmes for each of these diseases need specific evidence and data that may be hard to obtain and even harder to validate. Reliable data are essential to inform EU policymakers on the real burden of STIs and the effectiveness of measures to stop and/or reduce harm. Dedicated national programmes on HIV, STIs and viral

<sup>i</sup> <https://atlas.ecdc.europa.eu/public/index.aspx?Dataset=27&HealthTopic=30>

hepatitis also need significant advocacy to be resourced adequately; disease-specific data may help support this advocacy. To further support national programmes, scientific advice tailored to the EU/EEA situation is needed.

### Results achieved in 2020

In 2020 most ECDC staff working on HIV, sexually transmitted infections and viral hepatitis were re-allocated to work on the ECDC response to COVID-19. Due to this, the original work plan was revised, and activities cancelled or postponed.

In 2020, ECDC worked on further improving the quality of surveillance data for hepatitis B and C. The pilot of a new sentinel system (in hospitals and clinics) was finalised and the results were discussed in an expert meeting.

As part of the efforts to monitor progress to achieving the Sustainable Development Goals (SDG) targets, ECDC, together with WHO and EMCDDA, established the first monitoring system for national hepatitis programmes to assess the progress made in the EU/EEA to meet the SDG targets on hepatitis. A first report, published in June 2020 (see highlight), shows many data gaps that need to be filled to enable meaningful monitoring.

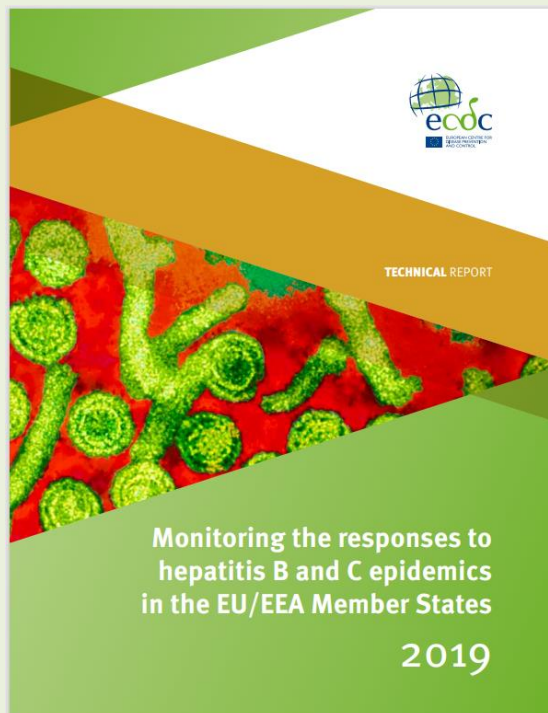
ECDC worked in close collaboration with UNAIDS to produce a set of European principles for HIV pre-exposure prophylaxis (PrEP) and an operational guidance. The guidance focuses on PrEP service delivery and monitoring of national programmes and will be published in 2021. In 2021 ECDC will be working on a follow-up of the guidance, with a focus on developing a standardised monitoring tool for PrEP in the EU/EEA.

Jointly with EMCDDA, ECDC started the evidence collection phase for the update of the guidance on prevention of infectious diseases for people who inject drugs (PWID). Data collection will be completed in 2021. Publication of the updated guidance document is scheduled for the end of 2021.

## Monitoring the response to hepatitis B and C epidemics in EU/EEA Member States

ECDC published the first report on monitoring progress towards the elimination of hepatitis B and C across EU and EEA countries in June 2020. This report, 'Monitoring the responses to hepatitis B and C epidemics in the EU/EEA Member States', was developed in close collaboration with all 31 EU/EEA countries, the WHO Regional Office for Europe and many other partner organisations. It provides the first collation of data relating to the monitoring of the progress towards the elimination targets and achievement of the 2030 Sustainable Development Goals (SDGs). The implementation of the monitoring system supports EU/EEA countries in evaluating their responses to tackling the hepatitis B and C epidemics through a structured and harmonised approach.

The report represents a major step towards understanding the priority areas for action and gaps in national responses to hepatitis B and C epidemics.



## Influenza (from September 2020 in the CAI Programme, previously in the VPI Programme)

### Context

Seasonal influenza creates a sizeable burden on healthcare services in Europe every winter, resulting in tens of thousands of deaths among the elderly. Zoonotic influenza and other emerging respiratory viruses also threaten public health in new and unexpected ways and the threat of a twindemic (influenza and COVID-19 simultaneously) was ever present in 2020, although it never materialised. Strong virological and epidemiological surveillance is needed to guide vaccination programmes for seasonal influenza. In 2009, the EU Council adopted a Recommendation<sup>i</sup> which established a vaccination coverage target of 75% among the elderly and those at risk for severe influenza. In 2018, a new Council Recommendation highlighted the needs for strengthened cooperation against vaccine-preventable diseases. The low levels of influenza activity seen in the southern regions of the world in 2020 provided some comfort for the forthcoming European influenza season 2020-2021.

International collaboration to follow up emerging influenza strains of concern remains essential, in particular with the WHO Regional Office for Europe, WHO headquarters, and other key international partners such as the US CDC and the China CDC.

### Results achieved in 2020

Throughout most of 2020, the epidemiological and microbiological resources normally devoted to influenza activities were all shifted to deal with the ECDC COVID-19 response. Still, ECDC and the WHO Regional Office for Europe managed to continue their joint influenza surveillance and the publication of the weekly influenza bulletin for Europe ([www.flunews europe.org](http://www.flunews europe.org)) during the influenza season and even launched a revamped FluNewsEurope website.

ECDC also continued its funding of the external I-MOVE network<sup>ii</sup>, which provided estimates of seasonal influenza vaccine effectiveness and produced valuable data for the composition of the next seasonal influenza vaccine. The work of the EuroMOMO network on all-cause excess mortality data reported from participating European countries was also maintained. The excess mortality this year was clearly due to COVID-19 and not influenza as it is usually.

Other areas of work maintained included an ongoing estimation of the burden of disease for influenza and contributions to the global strain selection process for influenza vaccines.

Increased efforts were made through social media to reinforce the awareness for seasonal influenza and the importance of vaccination to avoid a twindemic in 2020. ECDC leveraged the [@ECDC\\_Flu](https://twitter.com/ECDC_Flu) Twitter account by using videos, infographics and photo comics targeted at healthcare workers.

ECDC continued to monitor zoonotic influenza viruses and other emerging respiratory viruses in real time through its epidemic intelligence function. In 2020, ECDC and EFSA continued the publication of the quarterly situation assessment report on avian influenza.

ECDC continued coordinating the European Influenza Surveillance Network (EISN) and the European Reference Laboratory Network for Human Influenza (ERLI-Net).

## Tuberculosis (in the SBT Programme)

### Context

EU/EEA Member States, EU pre-accession countries, and countries covered by the European Neighbourhood policy have different epidemiological profiles with regard to tuberculosis (TB): five eastern and south-eastern European countries are characterised by a medium burden of (drug-resistant) TB, while the western European countries are mostly low-burden countries, with the possibility of progressing towards TB elimination. In low-burden settings, people at risk of TB are often in vulnerable, hard-to-reach populations. TB in migrants also contributes to the epidemiology. In medium-burden countries, TB is more often present in the general population.

<sup>i</sup> Council Recommendation 2009/1019/EU of 22 December 2009 on seasonal influenza vaccination.

<sup>ii</sup> I-MOVE: Influenza Monitoring Vaccine Effectiveness, a network to monitor seasonal and pandemic influenza vaccine effectiveness in the EU/EEA.

Diagnosing and treating patients is the main public health strategy. This requires sufficient human and financial resources and innovative strategies that allow for early case finding and optimal treatment. ECDC supports EU/EEA Member States in the implementation of the WHO 'End TB' strategy and in reaching the UN's Sustainable Development Goals target for tuberculosis. ECDC implements its strategy by organising TB surveillance, together with the WHO Regional Office for Europe, by coordinating a laboratory network to strengthen TB laboratory diagnosis, by developing scientific advice tailored to the EU/EEA situation, and by directly supporting Member States.

ECDC and the WHO Regional Office for Europe produce a joint annual surveillance report on TB, covering all 53 countries of the WHO European Region, which measures the progress against the objectives of the WHO Europe Tuberculosis Action Plan for the WHO European Region 2016–2020, which is the regional adaptation of the WHO 'End TB' strategy.

## Results achieved in 2020

In 2020 most ECDC staff working on TB were re-allocated to work on the ECDC response to COVID-19. Due to this, the original work plan was revised and activities cancelled or postponed.

On World TB Day (24 March), ECDC and the WHO Regional Office for Europe presented the joint annual report on tuberculosis surveillance and monitoring in Europe (2018 data). The report showed that the decrease in TB notifications continues but remains at a level that is not sufficient to reach the targets laid down in the UN Sustainable Development Goals<sup>i</sup>.

Following a successful three-year project that focused on the five high priority countries for TB in Europe, ECDC started a project to provide similar support to all Member States. The project consists of joint workshops, training activities, exchange visits between countries, and consultancy support to individual countries. In 2020, the first two activities took place. In February a workshop on the screening of migrants for tuberculosis took place in Athens where eleven countries participated: Austria, Belgium, Croatia, Cyprus, Germany, Greece, Italy, Malta, Portugal, Slovenia and Spain. The workshop was repeated in October in a virtual form with a total of 11 participants from Denmark, France, Ireland, Luxembourg, the Netherlands, Norway and Sweden.

ECDC continued to coordinate the TB surveillance and laboratory networks. The European Reference Laboratory Network for TB (ERLTB-Net) implemented its activities as planned. These activities included a network meeting, external quality assessment, training, and scientific work (see also highlight).

## Impact of COVID-19 on TB services

A survey on the impact of the COVID-19 pandemic on TB laboratory diagnostic services in the EU/EEA and the UK was conducted in 2020. The purpose of the survey was to understand the challenges experienced by national reference laboratories (NRLs) during the period 11 March to 11 June 2020.

NRLs belonging to the European Reference Laboratory Network for TB (ERLTB-Net-2) were invited to participate. The results showed that all reporting NRLs were affected by the COVID-19 pandemic (see figure below). The laboratories experienced minor to very significant disruptions to their normal operations. The most severe disruptions occurred in April, coinciding with the beginning of the COVID-19 pandemic.

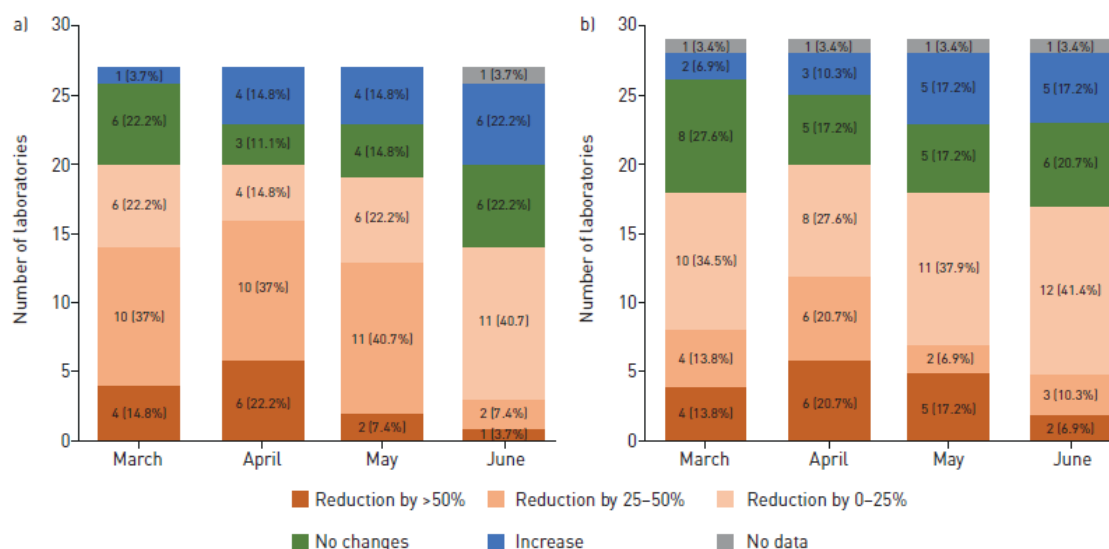
Even though most laboratories were able to maintain their core functionalities, between 30 and 40% of NRLs reported problems in adapting to non-pharmaceutical interventions against COVID-19 such as lockdowns, physical distancing or working remotely. Several European TB NRLs have been directly supporting COVID-19 response activities through provision of diagnostic services and re-deployment of TB staff.

Detailed survey results have been reported in a peer-reviewed publication<sup>ii</sup>.

<sup>i</sup> SDG Target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases. The 2030 targets are a 90% reduction in TB deaths and 80% reduction in TB incidence compared with 2015 levels.

<sup>ii</sup> Nikolayevskyy V, Holicka Y, van Soelingen D, et al. Impact of the COVID-19 pandemic on tuberculosis laboratory services in Europe. *Eur Respir J* 2021; 57: 2003890 <https://doi.org/10.1183/13993003.03890-2020>

Reduction of workload in European tuberculosis national reference laboratories (NRLs), March to June 2020. Numbers indicate number of TB NRLs experiencing relevant workload reductions in specified months. a) Primary services comprising examination of primary specimens. b) Reference services comprising examination of mycobacterial cultures. Months on diagrams refer to the 11 March, 11 April, 11 May and 11 June 2020.



## Vaccine-Preventable Diseases (VPI Programme)

### Context

The COVID-19 pandemic has severely tested public health and healthcare systems alike on a global scale. At the same time, it has also shown the key role vaccines and immunisation can play to protect and save lives. It is safe to say that more than ever before, in 2020, the world has been on a race to speed up and facilitate the research, development, production, regulatory approval, and public health use of new safe and effective vaccines against COVID-19 disease. To safeguard the health of European citizens, the European Commission spearheaded an unprecedented effort to secure EU’s access to and purchase of successful vaccine candidates once available on the market.

Throughout the year, in the context of the pandemic, the ECDC Vaccine Preventable Diseases & Immunisation (VPI) Programme continued to work closely with the European Commission and Member States to prepare the rollout of vaccination programmes against COVID-19 disease. The Programme also continued to implement the surveillance of other vaccine-preventable diseases, and observe and document trends regarding the spread of such diseases in the community, especially in the context of widespread lockdowns and distancing measures across the EU. Keeping high coverage rates through routine immunisation programmes was particularly relevant with a view to preventing further disease and extra related costs on citizens’ health and already overburdened healthcare systems due to the pandemic.

The policy landscape around vaccines and immunisation continued to evolve very rapidly throughout the 2020. This was primarily driven by a number of Commission communications issued throughout the year to facilitate access to COVID-19 vaccines, to prepare national vaccination deployment plans, to inform vaccination strategies and the prioritisation of population groups to be vaccinated, as well as to put in place systems and structures to monitor immunisation efforts once the vaccines would be authorised. The ECDC VPI Programme worked closely with the European Commission to provide the scientific and technical input underpinning all such policy developments in a very dynamic environment amid uncertainty when vaccines would be available, and what characteristics these would present. ECDC put tremendous efforts into the core elements that future national COVID-19 vaccination programmes would need to feature to ensure a robust and sustainable immunisation rollout in the post-authorisation phase.

## COVID-19 work in VPD

Key outputs produced in 2020 to support work on COVID-19 vaccines were:

- Technical Report on 'Key aspects regarding the introduction and prioritisation of COVID-19 vaccination in the EU/EEA and the UK'<sup>i</sup>, aiming to provide an overview of the key aspects related to the initial phases following the introduction of one or more COVID-19 vaccines in order to support EU policy in the area;
- Technical Report on 'COVID-19 vaccination and prioritisation strategies in the EU/EEA'<sup>ii</sup>, which used mathematical modelling in order to provide EU/EEA countries with information on factors that may affect the choice of COVID-19 vaccination strategies, according to different target groups and based on scenarios of hypothetical vaccine characteristics;
- Technical Report on 'Overview of COVID-19 vaccination strategies and vaccine deployment plans in the EU/EEA and the UK'<sup>iii</sup> outlining the initial developments in EU/EEA Member States and the UK regarding vaccine deployment plans and national vaccination strategies for COVID-19 vaccines, including interim considerations for priority groups, evidence to be considered for the prioritisation of target groups, logistical considerations and monitoring systems for post-marketing surveillance (e.g. vaccine coverage, safety, effectiveness and acceptance);
- In the context of its EU/EEA NITAG Collaboration, the Programme facilitated a series of regular virtual exchanges between countries for NITAGs/Public Health authorities to exchange know-how and preparatory plans for the rollout of vaccination; the EU/EEA NITAG platform became a key component of the ECDC strategy to maintain a regular and close dialogue with Member States and to offer technical support. Several working groups were established, including on the launch of a live systematic literature review on the efficacy, effectiveness, and safety of the COVID-19 vaccines licensed and in use in EU Immunisation programmes; a working group on the upgrade of electronic immunisation programmes to guarantee robust monitoring of COVID-19 vaccination efforts; a technical group discussing issues around the development of vaccination certificates and their use within/across borders;
- In close liaison and collaboration with the European Medicines Agency (EMA), ECDC established a mechanism for joint monitoring of the safety and effectiveness of COVID-19 vaccines in use in the EU. By means of additional funding from the European Commission, such collaboration will enable the real-life monitoring of how the various COVID-19 vaccines authorised and yet to be approved will perform across different population groups, i.e. with regarding their effectiveness and the overall impact of immunisation programmes;
- A large multi-centre study was put in place to prepare the infrastructure for a sustainable monitoring in real-life of the effectiveness of COVID-19 vaccines across different settings and populations in the EU. Such groundwork is expected to be expanded upon in 2021 and in the following years, with results feeding into discussions with the EMA as part of the above-mentioned collaboration.

## Results achieved in 2020

Outside work on COVID-19 vaccines, the following outputs on other vaccine-preventable diseases were produced in 2020:

- The European Vaccination Information Portal (EVIP) was launched in April 2020, during European Immunisation Week. The main purpose of this website is to provide accurate, objective, up-to-date evidence on vaccines and vaccination in general. It also provides an overview of the mechanisms in place in the European Union to ensure that available vaccines conform to the highest standards of safety and effectiveness. EVIP was developed by ECDC, in partnership with the European Commission, specifically its Directorate-General on Health and Food Safety and the European Medicines Agency (EMA). It is an initiative of the European Union and was developed following the Council Recommendation on Strengthened Cooperation against Vaccine Preventable Diseases<sup>iv</sup> adopted in December 2018. During the year, and in the context of the pandemic, the content of the portal was expanded to also include the process of development and approval of COVID-19 vaccines;
- A new updated HPV vaccination-related public health guidance was issued in March 2020, entitled 'Guidance on HPV vaccination in EU countries: focus on boys, people living with HIV and 9-valent HPV vaccine introduction';

<sup>i</sup> Report available on <https://www.ecdc.europa.eu/sites/default/files/documents/Key-aspects-regarding-introduction-and-prioritisation-of-COVID-19-vaccination.pdf>

<sup>ii</sup> Report available on <https://www.ecdc.europa.eu/en/publications-data/covid-19-vaccination-and-prioritisation-strategies-eueea>

<sup>iii</sup> Report available on <https://www.ecdc.europa.eu/sites/default/files/documents/Overview-of-EU-EEA-UK-vaccination-deployment-plans.pdf>

<sup>iv</sup> Council recommendation of 7 December 2018 on strengthened cooperation against vaccine-preventable diseases (2018/C 466/01)

- Measles and Rubella surveillance continued, in the context of the elimination goal in the Europe region, and in April 2020 the measles Annual Epidemiological Report with 2019 data was published. In addition, a first paper was published describing the impact of COVID-19 on measles surveillance. ECDC also continued to support the WHO in its efforts by attending and providing input to the Regional Verification Committee on Measles and Rubella Elimination in 2020;
- A large Network Meeting was held on 2-3 March 2020 to present and discuss the proposed new model of meningococcal disease (IMD) surveillance aimed at integrating epidemiological and genomic information. ECDC put in place a contract with an external sequencing contractor to provide whole genome sequencing services for IMD to Member States that cannot perform this themselves. A two-year pilot project on integrating epidemiological and genomic information in surveillance of invasive meningococcal disease in EU/EEA is in the pipeline and will commence as soon as possible.
- On December 1, a virtual meeting with immunisation and communications experts was held to present and validate the preliminary findings from an ECDC online vaccine misinformation project, thereby informing the future development of training materials and other resources for Member States. The meeting touched upon the challenges and opportunities of social media monitoring (including issues around GDPR) in order to identify misinformation; ensuring strong outreach to the community, including to vulnerable sub-populations, thereby promoting vaccine acceptance and challenge misinformation; the importance of programmatic monitoring and evaluating; empowering healthcare workers to have the confidence to promote vaccines; and working in partnerships (including with academia) to facilitate the strengthening of capacities at national level.

## Common indicators for all Disease Programmes

No.	Objective	Indicator	Target 2019	Verification	Result 2020
25	Strengthened Europe's defences against infectious diseases by dedicated programmes aiming at the best possible knowledge and implementation for prevention and control.	Satisfaction by the Member States regarding the work of the Disease Programmes	>75% satisfaction by two-third of the respondents	As measured by the networks annual survey	Due to the cancellation of most of the network meetings in 2020, and of the shortened duration of the meetings that took place virtually, no satisfaction survey was performed.
26		Added value of the disease programmes (as per periodical evaluation)	>75% satisfaction for the generic index, for each Disease Programme	Generic index based on the evaluation of the programme performed every five years (ongoing 2018–2020)	The disease programmes evaluations planned for 2020 were postponed due to the COVID-19 PHE.

# Management

## General management

### Context

The Director of ECDC is responsible for the general management of the agency, and of its strategic direction, leadership, and good governance.

The ECDC Founding Regulation establishes two governing bodies, the Management Board and the Advisory Forum. The Management Board ensures that the Centre carries out its mission and tasks in line with the founding regulation and appoints the ECDC Director. The Advisory Forum advises the Director on the quality of the scientific work undertaken by ECDC. In addition, an Audit Committee assists the Management Board in fulfilling its oversight responsibilities for the financial reporting process, the system of internal control and the audit process. The technical interactions between EU/EEA Member States and ECDC are channelled through the Coordinating Competent Bodies in each country. The ECDC Director is responsible for providing substantive, logistical, and programmatic support for meetings of the Management Board, the Advisory Forum, the Audit Committee, and the Coordinating Competent Bodies.

It is important that ECDC's products and communications are scientifically correct and impartial. ECDC introduced an independence policy in 2016 that ensures transparency and identifies risk of conflicts of interest as the Agency relies on many internal and external experts, who together shape the Centre's scientific position. The policy has since been split into two documents, with one document covering non-staff, including the Management Board (MB) and Advisory Forum (AF), and the other covering ECDC staff, including the ECDC Director and the Heads of Unit. A compliance officer oversees the implementation of this policy.



## Results achieved in 2020

The ECDC Strategy for 2021-2027 was approved by the ECDC Management Board at its meeting in June 2020. The Management Board also approved its recommendations on the third independent external evaluation of ECDC. The Strategic Roadmap for the implementation of the Strategy, together with a set of strategic Key Performance Indicators was approved by the Management Board at its November meeting. In 2020, the model for the ECDC Integrated Management Framework was approved by the Director, and in 2021 the implementation plan will be developed covering the main pillars of IMF: governance, organisational performance (planning, monitoring, and reporting), quality management, and internal control. The decision was made to initiate the implementation of an ECDC Quality Management framework based on the ISO9001 model in 2021. In 2020, ECDC initiated major work to implement a new methodology for the management of so-called instructional documents (such as Management Board decisions, administrative decisions, processes, procedures, and work instructions). Based on this, the work on establishing an ECDC process landscape, mapping the processes, and ensuring their aligned documentation started in 2020 and is foreseen to continue until the end of 2022.

The Integrated Steering and Supporting Systems (IceCube) programme was initiated in 2020. It aims at reviewing the current applications landscape in the administration (steering and supporting) area and proposing a roadmap for the implementation of integrated steering and supporting systems at ECDC. The major objective is to develop a target architecture that will better support ECDC business needs, and therefore IceCube will be the main programme supporting the implementation of the ECDC Integrated Management Framework until 2027 and bringing most of the foreseen efficiency gains.

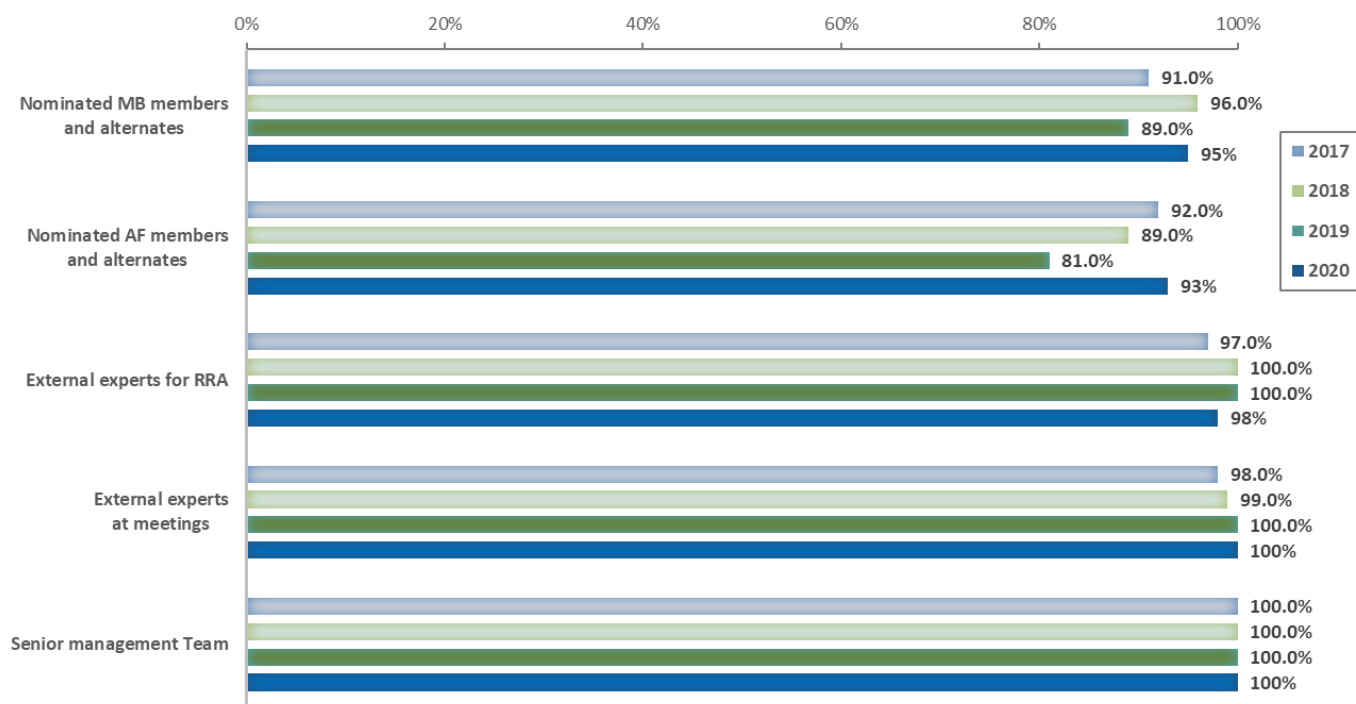
An external strategic and performance review of the ECDC COVID-19 response was carried out and the report and its recommendations presented to the Management Board in November 2020; an action plan was established, and the first status report will be provided to the Management Board in March 2021 (see Part II (a), Section 8. *Follow-up of recommendations and observations*).

The Management Board approved the Single Programming Document (SPD) 2021-2023 and the final draft of the SPD 2022-2024, based on the ECDC Strategy 2021–2027. The final draft of the SPD 2022 was sent to the EU institutions for consultation in January 2021, in accordance with the Framework Financial Regulation.

Between September 2018 and March 2020, ECDC chaired the EU agencies network (EUAN) and its sub-networks and continues in the Troika until March 2021. The agencies network provides a forum for information exchange and coordination of common positions on issues of mutual interest for EU Agencies. The network strengthens the voice of EU Agencies and promotes good governance.

ECDC continued to apply and strengthen its independence policy for non-staff and staff members. In 2020, the Centre lacked only a very small percentage of declarations: 5% of the appointed Management Board members/alternates did not file their Annual Declaration of Interest (ADoI) after the renewal of mandate (before the renewal, it was 3%), 7% of the appointed Advisory Forum members/alternates similarly failed to submit their ADoI and 2% of the experts consulted for Rapid Risk Assessment (RRA) as well. The Director and Heads of Unit filled their ADoI and all external experts at meetings submitted an ADoI.

**Figure 21. Percentage of declarations of interest received, by group**



### Indicators for general management

No.	Objective	Indicator	Target 2020	Verification	Result 2020
27	Ensure timely ECDC input to EU policies in the remit of the Centre's mandate	Number of EU policy documents for the preparation of which ECDC contributed	5	List monitored by the Chief Scientist	Not measured in 2020
28	Implement the independence policy of the agency	Proportion of reviewed annual and specific declarations of interest for delegates to Governing Bodies, ad hoc scientific panels, invited experts and ECDC staff members before participation to the specified activities as defined in the policy, including Rapid Risk Assessments.	100%	Report from the compliance officer	Annual declarations of interest submitted by: appointed Management Board members and alternates: 95 % appointed Advisory Forum members and alternates: 93 % Director and Heads of Unit: 100% External experts for rapid risk assessments: 98% External experts at meetings: 100%
29	Implement the annual work programme	Proportion of activities implementation of the Annual Work programme	85%	Verified via ECDC Management Information System	ECDC delivered 56% of the outputs initially planned in its Single Programming Document 2020–2022, and 90% of the outputs of the COVID-19 work programme approved in May 2020. 35% of the initially planned outputs were postponed to 2021 or overall cancelled.
30	Improve the adequacy and effectiveness of internal control systems	Rate (%) of external and accepted internal audit recommendations implemented within agreed deadlines (excluding 'desirable')*	90%	Internal control reporting to the Senior Management	80% (4 out of 5) open recommendations implemented during 2020.

## Collaboration and cooperation with EU institutions and Member States

### Context

Since ECDC's establishment, the Centre has been working and liaising closely with EU and EEA Member States, EU Institutions and a number of EU key stakeholders.

As a European Union Agency, the Centre is part of the EU family of institutions and organisations and collaborates closely with them to ensure its actions are coherent with EU policy objectives and properly coordinated with other EU bodies, primarily the European Commission's Directorate-General for Health and Food Safety.

The Centre also collaborates with other European Commission Directorate-Generals, e.g. the Directorate-General for Research and Innovation, the Directorate-General for European Neighbourhood and Enlargement Negotiations, and the Directorate-General for Civil Protection and Humanitarian Aid Operations. ECDC is active in the EU Agencies Network, which shares best practices, and regularly works with other EU agencies, most notably the European Food Safety Authority (EFSA), the European Medicines Agency (EMA), and the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA).

ECDC has a strong partnership with the European Parliament and its relevant Committees. ECDC's Director has an annual exchange of views with the European Parliament's Committee for the Environment, Public Health and Food Safety (ENVI) and submits annual written reports to the Committee for Budgetary Control (CONT).

In addition, the European Parliament regularly invites the Director for exchanges of views and hearings, or for providing information on specific diseases and/or outbreaks.

ECDC operates as the hub of a network organisation. Most of the resources ECDC draws on for disease prevention and control – including public health laboratories and disease experts – are located at the Member States' national public health institutes and associated academic bodies. The Centre's key partners are the Coordinating Competent Bodies (CCB) and ECDC's official national counterpart organisations, formally appointed by Member States. ECDC operates a Stakeholders Relationship Management (SRM) system to ensure the flow of information and support collaboration between Member States and ECDC.

Country visits help the Director to better understand the public health systems and policies of individual Member States. ECDC also nurtures its relationship with its host country, Sweden.

During a health crisis such as the ongoing COVID-19 pandemic, ECDC participates actively in Health Security Committee meetings, and is also invited to attend the meetings of the Health Ministers, as well as the Integrated Political Crisis Response (IPCR) meetings of the Council.

### Results achieved in 2020

Since early 2020, ECDC has worked in close collaboration with EU and EEA Member States and EU Institutions on the COVID-19 pandemic, with the smooth coordination between all parties remaining a top priority. ECDC was supporting Member States and the European Commission in the COVID-19 pandemic by providing the scientific background necessary to help Member States take complex decisions in these unprecedented times.

The Centre provided the Health Security Committee (HSC), the European Commission, the Council and the European Parliament with scientific advice and guidance and gave regular updates and technical support on questions related to COVID-19. Weekly meetings and video conferences took place with the Directorate-General for Health and Food Safety at both the strategic and the operational levels.

Close contacts were also maintained with the different Committees, special Committees and working groups of the European Parliament and with other EU Institutions such as the European Committee of the Regions. Several virtual hearings and meetings between the ECDC Director and the European Parliament took place throughout 2020 to give regular updates on the ongoing pandemic.

Collaboration with other agencies was intensified during the COVID-19 pandemic, particularly with EMA regarding work on vaccines, and with EASA, ERA and EMSA in the development of joint technical documents and guidance on travel.

During the first months of 2020, several visits to ECDC from Member States took place, including ministerial visits from ECDC's host country, Sweden, to give briefings and presentations on the epidemiological situation of COVID-19.

As in previous years, ECDC participated in the annual European Health Forum Gastein, which provides a platform for discussions within the field of public health and healthcare for policymakers and public health professionals. In 2020, the Centre organised a virtual session for around 200 participants on the potential of data in light of the pandemic, and early lessons learned with speakers from Member States, the European Commission and the WHO.

The third Joint Strategy Meeting (JSM), bringing together members of the ECDC Management Board, Advisory Forum, as well as the National Coordinators and Directors of Coordinating Competent Bodies, was planned to be held in 2020, but was postponed to 2021 due to the pandemic. However, the JSM Programme Committee, with representatives from all three constituencies met once during 2020 to discuss and agree on the modalities and topics for discussion during the JSM.

## Indicators for collaboration and cooperation

No.	Objective	Indicator	Target 2020	Verification	Result 2020
31	Achieve of a high level of effective communication and coordination between ECDC and its Competent Bodies	Satisfaction of the Coordinating Competent Bodies on the communication with ECDC	75% satisfied with communication and coordination	Measure with dedicated surveys	No dedicated survey in 2020
32	Achieve successful meetings through the provision of enhanced and more cost-effective organisational and substantive support	Level of satisfaction of representatives of Member States in meetings.	75 % of questionnaires completed provided ratings for the organisation of the meetings of very good to excellent.	Measure to be integrated into the meeting satisfaction questionnaire	No dedicated surveys were carried out in 2020 due to virtual meetings

## Resource management

### Context

ECDC's Resource Management Services (RMS) Unit provides the structure, means, services and expertise to manage ECDC's human, physical and financial resources in the most efficient and effective way.

ECDC continuously aims to improve its administrative processes to support its core activities, while recognising that some of the main goals remain unchanged over time, e.g. ensuring the reliability of the accounts and the legality and regularity of the underlying transactions. The overall objective is to provide administrative support and reduce its potential burden to make operational work more efficient and strengthen the Centre's ability to deliver tangible benefits for public health in Europe. The efforts to enhance efficiency and effectiveness includes continuing the clarification of roles and responsibilities, process review and reengineering, increased knowledge sharing and staff training. A specific emphasis is placed on increasing the use of electronic workflows, paperless administration, and process automation as this leads to both better compliance and saves resources.

### Results achieved in 2020

In 2020, RMS focused its efforts on enabling the PHE as well as supporting the implementation of the approved 2020 work plan. Across the RMS portfolio, client-focused and flexible services that responded effectively to the challenges ECDC faced were introduced. In the area of human resources management, for example, ECDC adapted its practices as regarding time management, remote working, leave planning, performance management and increased well-being support to staff. RMS, together with operational Units, identified solutions for urgent procurement requirements, amended numerous contracts and guided programme managers. Legal Services were impacted as well, including through a host of access to documents requests that were processed effectively, and Facilities Management ensured a safe and healthy working environment, including through provision of office equipment at home.

As of 31 December 2020, ECDC employed 271 staff members. Almost all EU Member States are represented among the Centre's staff (with Luxembourg being the exception). Considering the Establishment Plan, the vacancy rate was 3.9% (including offers accepted). The Centre continued to support health and wellbeing with an enhanced stress support programme that was provided remotely for individuals and groups. This programme will continue in the coming years to build resilience in the workplace.

Budget execution in terms of commitment appropriations at year-end reached 96.77%, equivalent to EUR 60.4 million. The budget execution in terms of payment appropriations at year-end reached 75.26%, equivalent to EUR 47 million. For the first time in the Centre's history, 96% of invoices were paid within the time limits of the ECDC Financial Regulation.

The use of electronic workflows for procurement, based on the European Commission's DIGIT application e-PRIOR, helped to launch eight high value procurement procedures in 2020.

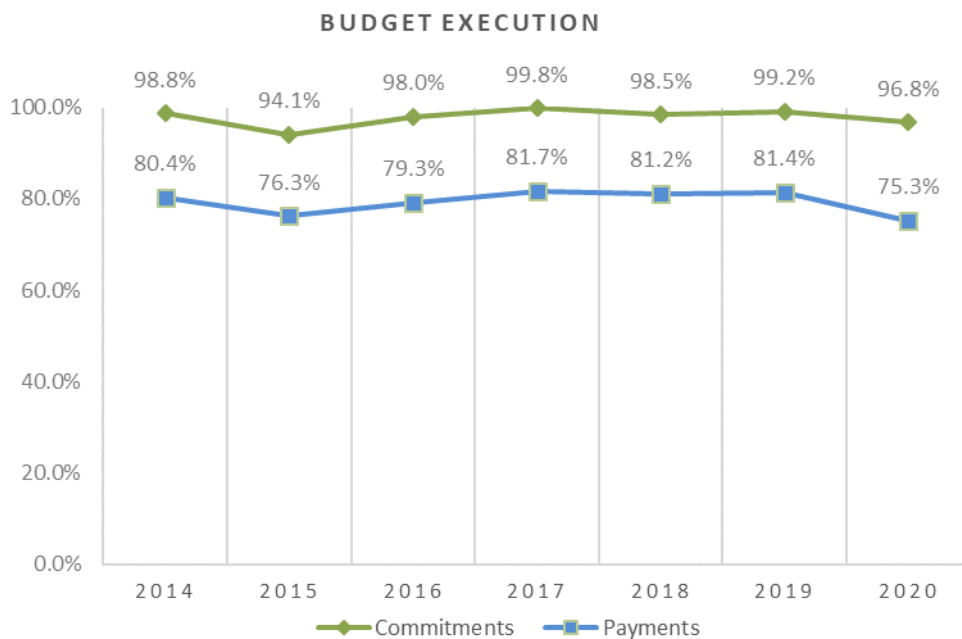
ECDC organised 30 operational meetings for external participants and supported 85 business trips for staff in 2020.

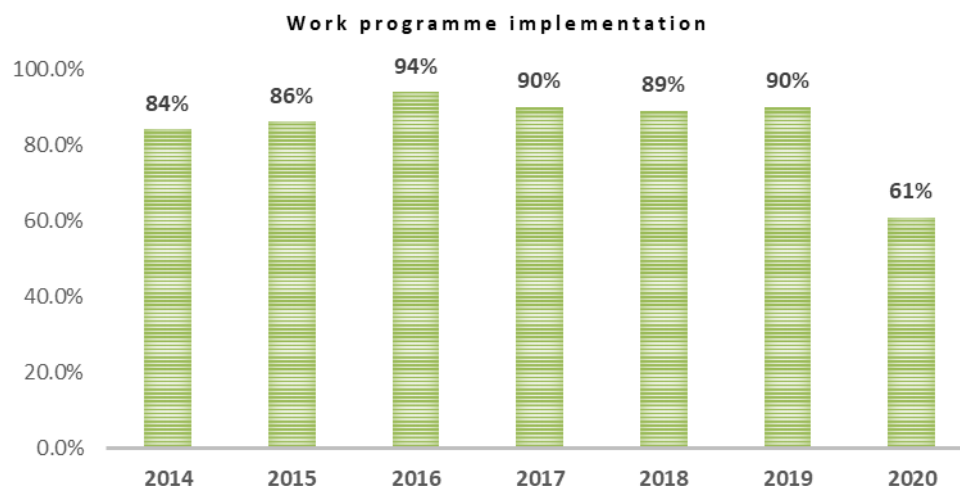
A new module for Allegro, ECDC's human resource system, was launched in 2019 and further developed in 2020. It supports all aspects of ECDC staff business trips (so called missions), from planning to processing of statement of expenses. The objective is to ensure a seamless and faster preparation and follow up of missions for both the administration and the operational staff.

ECDC continued to improve and strengthen its internal processes. Improvements included four new and three improved electronic workflows to ensure more efficient processes, increase compliance and reduce errors. Electronic workflows established in 2020 covered procurement and legal processes (request for offer, tender evaluation and award, committee for procurement, contracts, and grants (CPCG) and public access to documents). Further work was invested in SARMS, ECDC's scientific advice repository management system, in which four additional workflows were initiated and are expected at the beginning of 2021. By end of 2021, most internal procurement operations such as ordering under framework contracts, procurement process for very low to middle value negotiated procedures, a large part of the high value procurement procedures and a contract management module dealing with amendments to contracts is foreseen to be managed through electronic workflows.

ECDC continued its efforts towards strengthening its environmental management system with the aim to reduce its impact on the environment and optimise the use of resources. A scoping study to assess the current baseline and explore the possible use of the EU Eco-Management and Audit Scheme (EMAS) was performed in 2020. It will be used in the next phase as ECDC embarks on adopting a specific scheme for improvement.

**Figure 22. Budget execution**



**Figure 23. Work programme implementation**

## Indicators for resource management

No.	Objective	Indicator	Target 2020	Verification	Result 2020
33	Ensure best use of financial resources, timely correlated to the implementation of activities of the work programme.	Percentage of budget committed (C1) and percentage of payments executed (C1) in the same year as the commitment <sup>i</sup>	100% committed 80% paid	Annual accounts	96.77% of budget committed 75.26% of payments executed
		Percentage of invoices paid within the time limits of the ECDC Financial Regulation	95%	Total payments in year N and carry-forwards to Year N+1, as a % of the total EU funding and fee income, where applicable, received in Year N	96%
		Rate of cancellation of payment appropriations	2%		10.9%
		Rate of outturn	5%		4.34%
34	Ensure swift and timely fulfilment of the Agency's establishment plan correlated to the implementation of activities of the work programme	Average vacancy rate	5%	% of authorised posts of the annual establishment plan which are vacant at the end of the year, including job offers sent before 31st December	3.9 % vacancy rate (173 posts filled including offers sent and accepted, number of posts in the establishment plan: 180)
		Percentage of staff satisfaction/engagement	75%	12 weeks as from the vacancy notice deadline	Staff engagement index 51% (staff survey 2019)
		Average recruitment time		ECDC biannual staff survey	10.5 weeks

## Information and communication technologies

### Context

In 2020, ECDC's Information and Communication Technologies (ICT) Unit was reorganised and renamed to ECDC's Digital Transformation Services (DTS). This reorganisation completes the implementation of the IT2021 Programme where ECDC changed from a delivery model where software was developed in-house to an outsourced delivery model. DTS plays an important role in enabling ECDC's core missions such as disease surveillance, epidemic intelligence, and response. Some key information systems operated by ECDC are the European Surveillance System (TESSy), the new EpiPulse portal, the Epidemic Intelligence Information System (EPIS), the ECDC web portal, and the EU's Early Warning and Response System (EWRS) for public health threats, which the Centre operates on behalf of the European Commission.

<sup>i</sup> Indicators compliant with the "Guidelines on key performance indicators (KPI) for Directors of EU decentralised agencies, Brussels, 13 March 2015, SWD (2015) 62 Final"

Developing, operating and maintaining these systems at all times requires highly secure, interoperable and robust infrastructures. In addition, ECDC depends on IT systems to support its administrative processes.

Maintaining and developing ECDC's IT systems requires significant investments of both staff time and financial resources. According to its IT strategy management framework adopted in early 2017, the Centre allocates DTS resources based on strategic principles. DTS is strategically governed and enables ECDC's mandate with fit-for-purpose, interoperable, sustainable, innovative and best-value-for-money services.

## Results achieved in 2020

During 2020, large-scale IT projects in the area of surveillance continued and are expected to deliver their results in 2021. For instance, the Event and Threat Management Solution (ETMS) project will deliver a new tool for detecting and managing events and threats and display the Event Based Surveillance information in the EpiPulse portal. The new system will replace the current TTT and EPIS applications. Significant changes are expected concerning existing processes, data, and technology, including revised concepts for Signal -> Event -> Threat. In addition, the FluNews Europe (<https://flunewseurope.org/>) was redesigned to introduce new stand-alone data analysis algorithms and dashboards for the weekly flu data bulletin, including COVID-19 related information.

The COVID-19 Situation Dashboard was urgently implemented to present the ECDC COVID-19 data. It is available to the public through the ECDC web portal and can be accessed from both desktop and mobile devices. The dashboard presents surveillance data collected by ECDC from different sources via TESSy and epidemic intelligence screening.

The ECDC Geoportal was delivered and allows users to find and access geographic information and associated geographic services related to infectious diseases from a single centralised platform. It brings together existing and new components such as the Geocatalogue, the ECDC Map Maker (EMMa), and the E3 Network content. In particular, the Geocatalogue is a new component, which allows any user to search and discover spatially enabled disease data, determinants, or reference geodata. In addition, EMMa enables authenticated users to easily build maps compliant with ECDC guidelines, by using templates and resources either retrievable from the Geocatalogue or directly uploaded by the user. Finally, the E3 Network component integrates the already existing information and resources (e.g. Vibrio Map Viewer).

The Stakeholders Relationships Management (SRM, former CRM) system released a new module to facilitate the management of ECDC meetings, such as the Advisory Forum and Management Board meetings, expert meetings, country visits, training events and virtual meetings. At present, the new SRM module trainings are on-going, focused on virtual meetings and training module.

In pursuit of a paperless administration, ECDC continued to invest in a workflow digitalisation platform, an automation tool which benefits the organisation by reducing costs, increasing quality, ensuring process compliance and improving control. Two new workflows were delivered in 2020 and four more were improved. This initiative was boosted further as pilot ECDC users received Qualified Electronic Certificates and access to the 'EU Sign' platform, which is managed by DIGIT.

DTS worked on more than twelve IT-related studies promoting innovation and informed decision-making on new technologies and solutions. Most of the studies were delivered (Events and Logistics Management, e-recruitment, interactive help functionality, crowdsourcing, videoconferencing solutions etc.) while others are close to be finalised i.e. PHE Intranet, SRM to the cloud, Country Support and more.

ECDC maintains approximately 30 information systems that support business users. The maintenance of existing systems includes multiple activities, namely fixing defects, upgrading technical platforms, and making improvements to existing functionalities. During 2020 more than fifteen (15) IT solutions were further developed, including GeoPortal, HelicsWin.Net, Scientific Advice Repository and Management System (SARMS), Declaration of Interest (DoI), Stakeholders Relationships Management (SRM), Surveillance Data Warehouse, Early Warning and Response System (EWRS), FluNews Europe 2, Mobile Threats App, and Management Information System, and several dashboards such as the COVID-19 Situation Dashboard.

**Table 6. List of mission-relevant IT solutions (not exhaustive)**

System/application	Description
Early Warning and Response System (EWRS)	Supports critical communication about serious cross-border health threats, in accordance with decision 1082/13/EC, through an email-based platform between the Member States, the European Commission, other EU agencies and WHO.
Epidemic Intelligence System (EPIS)	Supports risk assessment of public health events that may represent a serious cross-border health threat as per decision 1082 through an ECDC moderated communication platform (e.g. European Legionnaires' Disease Surveillance Network, the EPIS platform for food- and waterborne diseases and others). In 2019, it will be replaced by an Event and Threat Management System (as part of the SSR roadmap)
The European Surveillance System (TESSy)	Supports collection, validation, cleaning, analysis and dissemination of data for public health surveillance, provided by EU Member States and other associated countries.
Threat Tracking Tool (TTT)	Supports the collaboration and management of public health threats, including the preparation of regular daily round table reports and weekly communicable disease threats reports.
Emergency Operations Centre (EOC)	A set of IT solutions providing access to information on public health emergencies and supports their management.
ECDC web portal	ECDC's web site and as such the main tool for external communication; the site offers outputs for public health professionals and information for the public. The current portal, supported by a content management system, was launched in June 2017.
Surveillance Atlas of Infectious Diseases	Launched in 2014, this tool provides interactive visual access to surveillance data. It is accessible through ECDC's web portal. The Atlas covers most communicable diseases that ECDC monitors and has been significantly expanded over the last few years.
<i>Eurosurveillance</i> website	Supports the publication of <i>Eurosurveillance</i> , a scientific journal on communicable diseases, which ranks among the top-10 journals in its field. An updated publication platform with interactive features was launched in September 2017.
ECDC Extranets	Support collaboration of public health networks, working groups and institutional bodies (MB and AF). Currently ECDC manages >20 extranets. In 2016, a major migration to an updated platform took place, making new functionalities available and bringing improvements to the user interface.
ECDC Virtual Academy (EVA)	Launched in 2016, the Virtual Academy allows ECDC to offer e-learning to support its public health training activities.
Customer Relationship Management (CRM) system	A business system that manages contacts, relationships (internal and external) and interactions with ECDC stakeholders. Supports the centralised management of Member State and other contacts.
Intranet	Tool for internal communication and support of internal processes.
Document / Records Management System (DMS/RM)	Supports the management of electronic documents; provides a single point of access to the Centre's documents (document management) and records (records management).
E-mail system	Supports electronic internal and external communication.
Remote access to ECDC systems	Allows the continuity of work by ECDC staff when away from the Centre's premises, e.g. during missions and on stand-by duty.
Scientific Advice Repository and Management System (SARMS)	Supports the monitoring of ECDC outputs with scientific content from production to clearance and dissemination.
ECED	ECDC expert directory is a roster of external experts that allows ECDC widening the number of experts and areas of knowledge and skills beyond its own expert staff and expertise.
ECDC library	The Library provides information delivery services and offers tools to ease access to information. The Library's collection is in digital and print formats) and can be accessed through the Library Intranet or in the library rooms at ECDC.
ECDC Knowledge Management (KM) Service Services	Knowledge Management Service is a collective term, describing terminology services, the talent map, and enterprise search.
Terminology Services (TS)	A system for shared professional vocabularies in order to improve the terminological consistency of ECDC documents; also used for consistent metadata tagging.
Enterprise Search (ES)	A single, unified search interface to retrieve information on ECDC from various systems. Available via the ECDC Intranet.
Talent Map (TaMa)	An internal database that collects professional competences of ECDC staff members; participation is voluntary.
Management Information System (MIS)	Internal system used to plan and monitor the implementation of the annual work programme.
IT Programme Management System (IT PMS)	Common planning and monitoring system for IT project management and support to IT work programme preparation and monitoring. It includes functionality for scheduling, risk and issue logging, status reporting, and resource assignments.



## Indicators for Digital Transformation Services

No.	Objective	Indicator	Target 2020	Verification	Result 2020
35	Ensure agency operations by maintaining constant availability of IT services elements to ensure smooth running of the Centre's activities (dedicated applications, databases, web portal).	Performance of ICT services: <ul style="list-style-type: none"> <li>• availability of hosted applications under service level agreement (SLA)</li> <li>• proportion of ICT Front-Office requests and incidents resolved as per SLA.</li> <li>• Compliance with predefined Product Acceptance criteria</li> </ul>	99% each 90% of requests and 90% of incidents >80% of all products are compliant	ICT statistics: verified by regular monitoring reports  ICT statistics: number of critical / high severity defects found in Production.  Criteria defined in the IT product quality acceptance criteria (doc. SMT 194/7)	29 infrastructure services and backend systems had an uptime of 99.98%; lowest uptime = 99.60%  25 applications had an uptime of 99.98%; lowest uptime = 99.94%  97.31% of 5 173 requests and 95.40% of 3 959 incidents were handled (SLA target)  100% compliance with the Product Acceptance criteria

## Part II (a). Management

### Management Board

In 2020, all Management Board meetings were held virtually due to the ongoing COVID-19 pandemic. An extraordinary Management Board meeting was held in November to discuss the European Commission proposal to strengthen the mandate of ECDC. During its 50th meeting in November, the Board re-elected Anni Virolainen-Julkunen and Zofija Mazej Kukovič as Chair and Deputy Chair of the Management Board respectively.

During the course of 2020, the Management Board approved the ECDC Strategy 2021-2027, and endorsed the Roadmap and Strategic Key Performance Indicators for the implementation of the Strategy. The Board also approved the final conclusions and recommendations of the third external evaluation of ECDC, based on the final evaluation report delivered in 2019. In its meeting in November, the Management Board discussed the results of the strategic and performance review of ECDC's response to COVID-19; an action plan to address the recommendations of the strategic review will be presented to the Board in March 2021.

In 2020, the Management Board approved the Annual Report of the Director 2019 and endorsed the Final Annual Accounts 2019 in accordance with its legal obligations. The Board also approved the ECDC Single Programming Document 2021 and the Budget and Establishment Table 2021. The ECDC Single Programming Document 2022–2024 was discussed by the Board members.

### Major developments

2020 had several major events and challenges that had a significant impact on ECDC. The COVID-19 pandemic, the most prolonged public health event to hit Europe in over a century, started in the beginning of the year, introducing an abrupt change to daily operations and the long-term planning of the Agency. It was the most serious PHE that ECDC has had to respond to since the Agency's establishment in 2004. Throughout the year, ECDC conducted epidemiological surveillance related to COVID-19, provided numerous rapid risk assessments, published scientific guidance to support public health decision-making, and responded to a large number of ad-hoc requests from the European Institutions, Member States and other stakeholders. During this time, ECDC continued close collaboration with other CDCs, the World Health Organization and different global partners.

To be able to efficiently face the challenges posed by the pandemic, the Centre had to adapt its existing structure by putting in place a number of temporary entities which tackled the tasks related to COVID-19, alongside the existing PHE structure. These flexible measures intertwined with the new organisational structure that came into force at the beginning of the year, as the outcome of the 'Next Generation ECDC' initiative. The main objective of the reorganisation was to enhance the Centre's performance through improving its organisational design. Transformation of the ECDC structure in 2020 – and other changes that it entailed – aimed at increasing the overall effectiveness, efficiency and capability of implementing ECDC vision and Strategy 2021-2027.

Adopted in 2020, the ECDC Strategy 2021-2027 defines ECDC's goals in the coming years as ensuring that decision-makers receive the necessary advice and scientific evidence to support changes in policy and practice in the area of communicable disease prevention and control. Considerable efforts were dedicated in 2020 to the elaboration of the Strategic Roadmap, translating the Strategic Objectives into concrete milestones to be produced gradually over the seven-year period, guiding annual planning and resource allocation in ECDC.

These impactful changes within the organisation have been accompanied by some major external events. ECDC has been involved in many high-level discussions, regarding the outbreak of the COVID-19, on the EU and global levels. Some of them are listed below:

14 January	Council Budget Committee hearing, Brussels
31 January	Visit Swedish Minister of Health to ECDC, Stockholm
3 February	Annual hearing with ECDC Director before ENVI, European Parliament, Brussels
3 February	Director meeting with the European Commissioner for Health and Food Safety Stella Kyriakides, Brussels
4-6 February	Heads of EU Agencies meeting, Brussels
7 February	Visit by Austrian delegation led by the Austrian Federal Minister for EU and constitution, ECDC, Stockholm
18-19 February	Advisory Forum 60 <sup>th</sup> meeting, ECDC, Stockholm
19 February	ECDC Director's briefing about 2019-nCoV to the Swedish general public and journalists together with Johan Carlson, Head of the Swedish Public Health Agency, Stockholm
26 February	Visit of the Swedish Minister for European Affairs to ECDC, Stockholm

26 February	Press conference with the Health Minister of Italy, European Health Commissioner, and World Health Organization Regional Director for Europe on the measures to manage the COVID-19 outbreak, Rome, Italy
3 March	Visit Prime Minister of Sweden to ECDC, Stockholm
5 March	The update of ECDC Director to the ENVI Committee on COVID-19 (online)
10 March	Videoconference with the World Health Organization Regional Director for Europe Hans Kluge (online)
19 March	Briefing of the Director with the Embassies of Australia, UK, New Zealand, Canada, US on COVID-19 (online)
8 April	ECDC Director presentation as the Keynote Speaker at the EU Heads of Mission meeting under the Croatian EU Presidency (online)
20 April	Ministerial level videoconference upon the invitation of the European Health Commissioner Kyriakides (online)
18 May	Update in the European Committee of the Regions on the latest development of COVID-19 (online)
20 May	Video meeting with HRH Crown princess Victoria and Prince Daniel on COVID-19 (online)
17 June	Management Board 49 <sup>th</sup> meeting (online)
30 June	European Health Forum Gastein: Webinar: Does speed trump perfection? Evidence for policy and practice – informing the COVID-19 response (online)
2 July	Virtual panel COVID-19 organised by London School of Economics and Political Science (online)
9 July	Extraordinary online Heads of Agencies (EUAN) meeting (online)
16 July	Informal Meeting of Health Ministers under the German Presidency (online)
2 September	The Exchange of Views on COVID-19 with the ENVI Committee of the European Parliament and ECDC Director (online)
4 September	Virtual ad-hoc meeting of Health Ministers (online)
14-15 September	70 <sup>th</sup> session of the WHO Regional Committee for Europe (online)
29 September	Meeting of Chief Medical Officers (online)
30 September	Meeting of National ECDC Correspondents from Western Balkan countries and Turkey (online)
30 September	Meeting with the European Health Commissioner Kyriakides (online)
2 October	European Health Forum Gastein 2020 (online)
5 October	WHO Europe: Pandemic fatigue: reinvigorating the public to prevent COVID-19 (online)
8 October	Head of Agencies (EUAN) meeting (online)
13 October	"World Leadership Dialogue: Averting antimicrobial resistance: why leadership matters" - 16 <sup>th</sup> World Congress on Public Health (online)
27 October	World Health Summit - "Developing Strategies for Fighting COVID-19 Around the World"
19 November	"European Cancer Summit "Time for Action: Overcoming the barriers to HPV cancer elimination" session (online)
25 November	Management Board 50 <sup>th</sup> meeting (online)
26-27 November	ESCAIDE (online)
2 December	Video conference of Health Ministers (online)
7 December	High level virtual launch event ECDC4AfricaCDC (online)
10 December	ECDC Director's participation in the Senior Officials Meeting with WHO (online)
15 December	Advisory Forum 63 <sup>rd</sup> meeting (online)
16 December	Virtual meeting at deputy level on the state of play of the authorization procedures concerning Covid-19 vaccines, EU-Presidency Task Force (online)

## Budgetary and financial management

### Fund source C1 (current year appropriations)

Budget execution in terms of commitment appropriations at year-end reached 96.77%, equivalent to EUR 60.4 million.

Budget execution in terms of payment appropriations at year-end reached 75.26%, equivalent to EUR 47 million.

### Information on transfers and amending budgets

The Director exercised her right to amend the budget within the limitations of Article 26.1 of ECDC's Financial Regulation and approved net budget transfers of EUR 4.1 million between several budget lines within the different titles in order to optimise the use of the budget.

## Level of appropriations carried forward to the following financial year

ECDC carried forward the amount of EUR 13.4 million to 2021 (EUR 10.5 million to 2020).

## Implementation of appropriations carried forward from the previous financial year

Budget execution in terms of payment appropriations for the fund source C8 at year-end reached 89.1%, EUR 9 437 041 was paid from EUR 10 592 099 carried forward to 2020.

Interest charged by suppliers for late payments: EUR 341.

## Procurement procedures

During 2020 a total of 130 contracts were concluded (10 framework contracts, 14 direct contracts and 106 specific contracts). 79 procurement procedures were conducted during 2020 (nine open calls, 48 negotiated procedures and 22 reopening of competition).

ECDC also concluded 15 framework partnership agreements and 44 specific grant agreements.

## Summary information on budgetary operations for the year

The core budget of the Centre for 2020 (EUR 62.5 million) increased by 5.6% compared to 2019 (EUR 59.2 million).

For additional information see Annex VIII, Final annual accounts 2020.

## Controls and control results

A short description of the controls and the control results can be found below regarding the internal control objectives mentioned in the ECDC Financial Regulation, article 30.2.

A number of control results are reported to the Director every year regarding on-going and/or separate assessments to ascertain whether the components of internal control are present and functioning.

The following assessments are prepared, and made available to the Director, at least annually:

- Overall self-assessment of internal control in ECDC, including main deficiencies reported;
- Self-assessment of the implementation of the ECDC Internal Control Framework;
- Analysis of exceptions reporting, including action plans on possible remedial actions;
- Status of internal control and quality weaknesses reported;
- Results of the ex-post controls for the grant verifications;
- Summary of the interactions with OLAF;
- Analysis of the audit observations/recommendations of the Internal Audit Service and of the European Court of Auditors to identify internal control deficiencies, including monitoring of ECDC's implementation of the corrective actions being implemented in a timely manner.

## Legality and regularity of the underlying transactions

The ECDC budget is implemented through mainly four types of transactions: salaries and salary-related entitlements, reimbursements (to staff or external persons), procurement related expenditure and grants.

The main objective of the controls in place regarding budgetary implementation in ECDC is to ensure compliance with the regulations in place, and thereby ensuring the legality and regularity of the underlying transactions.

The main ex-ante controls to be performed are described mainly in the internal procedures (IP) in place. The most important being the IP on the Advisory Committee on Procurement, Contracts and Grants (CPCG); the IP on Procurement and Contract Management; the IP on Grant Management, as well as the IPs on the Financial Workflows for Commitments and Payments (including the checklists for the ex-ante verifications to be performed).

In addition to the ex-ante controls performed, ex-post controls are performed for grants.

Ex-post verifications of grant agreements are performed every year by ECDC, in line with the ECDC Grant Verification Policy and the ECDC Grant Verification Plan. The verifications are performed by an external audit firm.

In 2019, two grants were selected for verification and the results of the verifications were concluded upon in 2020. In 2020, another two grants were selected, and the work is currently on-going. The final results are expected to be established in the first half of 2021.

The sample of verifications performed per year is not representative of the total population of grant agreements and not linked directly to the payments made for the year 2020. However, the result of the verifications does not indicate that the average error regarding grant agreements in ECDC is above the materiality criteria of 2%.

## Prevention, detection, correction and follow-up of fraud and irregularities

ECDC has an Anti-Fraud Strategy in place. The current Anti-Fraud Strategy covers 2018-2020 and was approved by the Management Board in June 2018. It is based on a fraud risk assessment and includes a number of activities, i.e. internal fraud training activities, refining the fraud risk assessment over time and further analysing and improving the controls in place in the prioritised areas. The fraud risk assessment is updated every year and the implementation of the action plan is monitored. All the actions have been implemented apart from one planned training activity regarding fraud prevention workshops. These workshops have been postponed and included in the new Anti-Fraud Strategy approved by the Management Board in November 2020, covering the years 2021-2023.

ECDC has an OLAF coordinator in place that is responsible for coordinating issues regarding fraud and irregularities and the contacts with OLAF. The OLAF coordinator reports to the Director at least once a year regarding the work performed and the status of fraud-related issues and investigations.

## Safeguarding of assets and information

At the end of 2020, the total net value of the ECDC assets was €2.62 Million. ECDC's assets are managed in the Accrual-Based Accounting Assets IT tool. A physical inventory is performed at minimum every two years. The latest physical inventory for both IT equipment and furniture was performed in 2020. Overall, it is concluded that the most likely error for assets is below the materiality threshold, however, some improvements are being implemented by ECDC to the procedures in place.

Information is safeguarded in relevant IT systems, including the ECDC Document Management System (DMS). IT security is provided by the Digital Transformation Services Unit, which also has a specialist IT security officer in place. In 2020, ECDC became a subject of unprecedented interest from cybercriminals and hackers which materialised in different types of cyber-attacks towards ECDC infrastructure and IT services. In response, additional measures were implemented to safeguard the information, i.e. increased logging, intensive monitoring, intensive software updates, stronger access control, etc.

## Reliability of reporting

Financial reporting is provided by ECDC both internally and externally at regular intervals. Reports on budget implementation are provided monthly to the Director and Heads of Unit. External financial reporting is provided mainly through the annual accounts of the Centre and the annual report on budgetary and financial management, in accordance with the ECDC financial regulation. These external reports are audited by the European Court of Auditors and no material anomalies were noted for 2019.

## Effectiveness, efficiency, and economy of operations

The effectiveness, efficiency and economy of operations is covered mainly by part I of the annual report, but sound financial management is also an integral part of the ex-ante controls performed for the individual transactions authorised.

## Cost and benefits of controls

The controls in place are designed to optimise their effectiveness and efficiency, by striking the right balance between the benefits of the controls regarding especially the legality and regularity of the underlying transactions, and the effectiveness and efficiency of the control taking into consideration the risks involved.

Regarding the effectiveness of the controls, the European Court of Auditors has given ECDC an unqualified opinion on the 2019 accounts and had no comments at all regarding the legality and regularity of the underlying transactions. No other indications were found that the controls in place were not effective.

Regarding the efficiency and economy of the controls, no serious anomalies were reported to indicate that the efficiency and economy were under question. However, in order to better measure the efficiency and economy of the controls, ECDC is working on introducing some more detailed indicators.

The estimated cost of controls for ECDC in 2020 is included in the following table:

**Table 7. Estimated cost of controls 2020**

Relevant Control System	Ex-Ante Controls			Ex-Post Controls			TOTAL		
	Estimated Cost of Controls (€)	Funds Managed (€)	Ratio (%)	Estimated Cost of Controls (€)	Amount Verified and/or Audited (€)	Ratio (%)	Estimated Cost of Controls (€)	Funds Managed (€)	Ratio (%)
Salaries and other entitlements	290449	29534460	0.98%	0	0	0.00%	290449	29534460	0.98%
Reimbursements	237361	660069	35.96%	0	0	0.00%	237361	660069	35.96%
Procurements	2429310	23977111	10.13%	0	0	0.00%	2429310	23977111	10.13%
Grants	445375	2295002	19.41%	16331	199973	8.17%	461705	2295002	20.12%
TOTAL	3402494	56466642	6.03%	16331	199973	8.17%	3418825	56466642	6.05%

The table is split by relevant control systems, which are based on how ECDC implements the budget, and by ex-ante and ex-post controls.

The table and calculation method have been inspired by the approach used in the European Commission. The estimated costs of controls include the estimated salary costs (including social charges) of the staff directly involved in the relevant control systems.

The staff included as staff directly involved are those working with accounting and financial management issues in the Finance and Accounting Section; the staff working with managing salaries in the Human Resources Section; the staff working with controls of reimbursements in mainly the Missions and Meetings Group in the Corporate Services Section; the staff working with procurements in the Legal Services and Procurement Section; the staff working with grants mainly in the Fellowship Programme Group in the Public Health Training section of the PHF Unit. In addition, an estimation has been made for the amount of time spent by the operational staff involved in mainly the procurement related expenditure.

The estimated costs of controls do not include any direct or indirect information technology costs, any staff costs for general control-related activities (e.g. planning, quality management, internal control coordination, anti-fraud related work) or any other overhead costs (e.g. costs for office space).

The cost of controls are compared to the funds managed (defined as funds paid as C1 or C8 credits in 2020), which makes it possible to establish a ratio.

The ex-post cost of controls includes the staff costs for the coordination and monitoring of the grant verifications and the costs of the external audit firm performing the actual verifications.

ECDC will further refine the methodology used, and closely follow the development of the cost of controls and the ratios, over the coming years. The cost of controls and the ratios are difficult to compare to other organisations. However, they are indicators to be used over time to monitor the development of the efficiency of the controls in place.

As seen in the table, the ratio for the cost of ex-ante controls for salaries and other entitlements is relatively low, due mainly to the rather large amount of total salary payments. The ratio for the cost of ex-ante controls is a lot higher regarding reimbursements than for other types of transactions. Reimbursements are clearly more time consuming than other types of transactions, especially in comparison with the rather large number of small individual payments made. The ratio for the cost of ex-ante controls for procurements is closely linked to the number and types of procurements performed in the year in question. Finally, the ratio for the cost of controls for grants is impacted by the fact that almost all ECDC grants are for the Fellowship Programme and therefore the individual grant agreement amounts are quite small.

## Delegation and sub-delegation of the powers of budget implementation to agency's staff

The Director of ECDC, as authorising officer (AO), has delegated financial responsibility to the five Heads of Unit, as authorising officers by delegation (AOD).

The Heads of Unit in turn delegate responsibility – but only in their absence – to the Deputy Heads of Unit (Authorising Officers by Sub-Delegation (AOSD)).

Should the Deputy Head of Unit be unavailable, the authority returns to the Director. Thereby, a very limited number of persons act as authorising officers in ECDC.

The authorising officers by delegation can enter into budgetary and legal commitments and authorise payments. However, all commitments above €250.000 require the signature of the Director.

For the expenditure of 2020, the AODs signed a Declaration of Assurance to the AO for the area for which they were delegated responsibility. No reservations were raised by the AODs.

## Human resources management

Human Resources management aims at supporting the Centre's management and staff by providing continuous HR services in areas such as recruitment, working conditions, pay and entitlements, learning and development, staff well-being and change management. The objective of the Centre's learning and development activities is to offer professional growth for the individual and maintain and further strengthen the Centre's organisational performance.

In April 2020, due to the Centre's work related to the COVID-19 pandemic, an additional 20 short term Contract Agent posts were assigned to ECDC. In addition to ensuring that the recruitments to cover the core posts were carried out, the Centre had a particular focus on recruitment of the new posts as well as to adjust the necessary processes to ensure timely staffing. Furthermore, the HR activities were focused on supporting staff during the COVID-19 pandemic with regards to adapting the relevant processes to the extraordinary situation (e.g. adjusted modalities linked to teleworking and time management). Considering the situation, a specific focus was put on staff's wellbeing, with stress prevention activities and extended support of in-house doctor's phone consultation. The learning and development activities were offered online, and coaching support was provided to managers and teams in view of the new ways of working (teleworking).

The majority of the Centre's jobs (77.8%) are related to the implementation of activities linked to the Centre's operational work. 16.2% of the jobs belong to 'administrative support and coordination', while 6.0% of the jobs are defined as neutral (i.e. primarily in the area of finance/accounting and internal control) (see *Annex IV, Establishment plan and additional information on Human Resources management*).

## Strategy for efficiency gains

In 2020, ECDC continued its efforts towards delivering efficiency gains. The first version of the Centre's Integrated Management Framework was approved by the Director. The introduction of new methodologies, including the automation of administrative and operational processes as critical aspects to reach and sustain further efficiency gains, continued in 2020. In 2020, four new administrative processes were automated through electronic workflows. An overall analysis of their use already shows a significant adoption by users and a clear reduction of process time, due to the elimination of unnecessary steps or waits, while ensuring legal compliance. This effort will be continued and by 2021 ECDC intends to automate all internal procurement preparation steps in an integrated procurement portal, to guide internal staff and facilitate the timely, compliant, and efficient preparation of procurements, in a shorter time. In the area of staff's travel, the electronic mission tool launched in 2019 as part of the HR system was finalised and taken into the use. ECDC is also engaged in a number of joint procurements with other EU agencies and is using shared IT services (such as the disaster recovery centre of EU IPO).

As mentioned in this document, ECDC is also implementing a number of operational actions, such as the re-engineering of its surveillance systems, for increased efficiency (see *Part I, section 2. 2. Surveillance and epidemic intelligence*).

## Assessment of audit and ex-post evaluation results during the reporting year

### Internal Audit Service

ECDC is audited by its internal auditor, the Internal Audit Service of the European Commission (IAS). The audit work is defined in the risk-based IAS strategic internal audit plan. The current plan covers the period 2018–2020.

All observations and recommendations are taken into account and appropriate action plans are developed. The implementation of these actions is regularly followed-up and presented to the Audit Committee of the Management Board.

In 2020, the IAS performed an audit on Human Resource Management and Ethics in ECDC in accordance with the strategic internal audit plan. The final report was received in January 2021. The audit made four recommendations, two of them were classified as very important and two as important. An action plan was developed by ECDC, and its implementation will be carefully monitored by ECDC and the Audit Committee and reported upon to the IAS.

## Internal Audit Capability

Not applicable.

## European Court of Auditors

The ECDC annual accounts are audited by the European Court of Auditors (ECA). The audit provides a Statement of Assurance as to the reliability of the accounts of the Centre and the legality and regularity of the underlying transactions.

ECDC received an unqualified opinion for 2019, indicating that the accounts are reliable and the transactions underlying the accounts are legal and regular. The ECA made no other comments in its final report for 2019.

The ECA audit of the 2020 annual accounts is ongoing. The first part of the audit was performed in November 2020. The audit will be finalised during spring 2021, and a draft report will be available by June 2021.

## Follow-up of recommendations and observations

### Follow-up of recommendations and action plans for audits and evaluations

#### *Audits*

ECDC successfully implemented all three remaining IAS recommendations during 2020. At the end of January 2021, all IAS recommendations have been implemented and reported to the IAS for review.

The two outstanding issues with the ECA were: (1) one regarding the high carry-overs of committed appropriations in operating expenditure (Title III), an observation that was directed at a number of Agencies in 2017, where ECDC was asked to consider introducing differentiated appropriations, and (2) one regarding two payments for meeting events, where the auditors found weaknesses in the structure and documentation of checks and reconciliations on order forms, deliverables and invoices and recommended that the Centre should strengthen these aspects of its control system, in particular with respect to large and complex meeting events.

Regarding the first issue, ECDC analysed carefully the advantages and disadvantages of introducing differentiated budget appropriations and concluded that is not recommended at this point in time. The issue has thereby been resolved and is no longer outstanding with the ECA. Regarding the ECA's comment on meeting events, the Centre is reviewing the structure and documentation of checks and reconciliations in place regarding meetings, in particular large and complex meetings, and will adapt the internal procedures accordingly at the latest by Q2 2021.

#### *Evaluations*

In an effort to continuously improve its performance, the Centre commissioned an external assessment of its response to the COVID-19 pandemic for the period January - September 2020. This analysis grounded its conclusions and recommendations on a desk research, a comprehensive stakeholder consultation, and a benchmarking and learning exchange with other similar organisations. The aim was to obtain a good evidence base to propose practical recommendations related to the support ECDC provides to Member States and the European Commission, the collaboration with key partners and the internal organisation of the COVID-19 operations. The report was presented to ECDC Management Board meeting 25 November 2020 with specific focus on its 26 recommendations, and is currently used as a basis for an action plan agreed by ECDC management in December 2020. The selected actions aim to achieve improvements in response activities and in the organisation of the Public Health Event processes.

## Follow-up of recommendations issued following investigations by the European Anti-Fraud Office (OLAF)<sup>i</sup>

As ECDC did not have any open OLAF recommendations from previous years or receive any new ones in 2020, no follow-up of actions were required or taken in this regard. No reports impacting the accounts were received in 2020.

<sup>i</sup> Article 11 Regulation (EU/Euratom) 883/2013 of the European Parliament and of the Council concerning investigations conducted by the European Anti-Fraud Office (OLAF)



## Follow-up of observations from the discharge authority

Article 110 (2) of the ECDC Financial Regulation states: 'At the request of the European Parliament or the Council, the Director shall report on the measures taken in the light of those observations and comments'.

This report provides an overview of the measures taken by the ECDC in the light of observations and comments made by the Discharge Authority on 13 May 2020 in respect to the implementation of the budget of the Centre for the financial year 2018.

**Table 8. European Parliament's observations and measures taken by ECDC**

Reference	Observation of the Discharge Authority	Response and measures taken by ECDC	Status/Reference
<b>Performance</b>			
P9_TA-PROV (2020)0121 paragraph 6	Notes that an external evaluation for the period 2013-2017 was carried out between 2018 and 2019 and that the final report on that evaluation was expected in July 2019 and has to be forwarded to Parliament once approved by the Centre's management board; <b>calls on the Centre to report to the discharge authority on the outcome of that external evaluation;</b>	The final report of the third independent external evaluation of ECDC was approved by the ECDC Management Board in June 2020. The report is published on the ECDC website ( <a href="https://www.ecdc.europa.eu/en/publications-data/third-external-evaluation-ecdc-2013-2017">https://www.ecdc.europa.eu/en/publications-data/third-external-evaluation-ecdc-2013-2017</a> ), and will be forwarded to the European Parliament.	<b>Implemented</b>
P9_TA-PROV (2020)0121 paragraph 9	<b>Regrets</b> , concerning the implementation of the independence policy of the Centre, <b>that not all the required annual declarations of interest were submitted</b> , particularly by management board members (96 %) and advisory forum members (89 %); calls, therefore, for strict adherence to the rules and internal procedures; recalls that independence and transparency are crucial, given the important tasks of the Centre; <b>calls for a mechanism</b> to ensure that all outstanding and future declarations of interest are submitted without delay, and <b>calls on the Centre to consider not allowing members to take up their roles</b> before this crucial information has been provided and checked;	In comparison to 2017, 2018 showed an increased percentage of compliance. All members/alternates that physically attended meetings of the Management Board (MB) and Advisory Forum (AF) and/or exercised their right to vote have submitted a Declaration of Interest (DoI).  In early 2020, ECDC adopted further measures to increase the submission rate.  Since the beginning of 2020, members / alternates of the MB and AF are not able to access the meeting documents in the extranet before they submit their Annual DoI.	<b>Implemented</b>
P9_TA-PROV (2020)0121 paragraph 10	Stresses that the Centre launched its third external evaluation, which was coordinated by a steering committee comprised of management board members, and that the <b>result of the evaluation was expected for mid-2019</b>	The final report of the third external evaluation report as well as the MB conclusions and recommendations were approved by the MB in June 2020, and published on the ECDC website ( <a href="https://www.ecdc.europa.eu/en/publications-data/third-external-evaluation-ecdc-2013-2017">https://www.ecdc.europa.eu/en/publications-data/third-external-evaluation-ecdc-2013-2017</a> ).	<b>Implemented</b>

Reference	Observation of the Discharge Authority	Response and measures taken by ECDC	Status/Reference
P9_TA-PROV (2020)0121 paragraph 11	<b>Draws attention to the Centre's role in developing tools for the digitisation of healthcare in the Union</b> , in particular in the context of tackling a pandemic;	<p>ECDC has the legal mandate to host and maintain EU's cross-border public health threats Early Warning and Response System (EWRS). Reflecting closely all requirements of Decision 1082/2013/EU and Commission Implementing Decision (EU) 2017/253, the re-engineered of EWRS project was initiated in 2017 and EWRS 2 was delivered in November 2019. It provides more effective notifications and communications features, new functions such as the incident management and situation awareness allowing for a quick overview on large-scale incidents, while the interlinking with other EU alert and information systems has already started facilitating meaningful exchanges with other sectors. In the context of a pandemic, based on the experience of COVID-19 further areas for improvement were identified to be addressed in 2021.</p> <p>The implementation of the Surveillance Systems Re-engineering (SSR) Roadmap adopted in 2017 is progressing. The aim of the programme is to enable a more structured and efficient way of operating infectious disease surveillance at ECDC, by integrating indicator- and event-based surveillance tools and processes and by modernising the overall IT technologies and user's interfaces.</p> <p>EpiPulse (MyECDC Surveillance Portal) including ETMS (Event and Threat Management Solution) TESSy (The European Surveillance System) and WGS (Whole Genome Sequencing Solution) is scheduled to go live in 2020 depending on the level of the current PHE.</p> <p>ECDC also focused on exploiting digital health in priority areas such as immunisation (Technical Report on Designing and implementing an immunisation information system) and surveillance using electronic medical records data. In 2019, protocols for automated surveillance of antimicrobial resistance, severe influenza, pertussis, and invasive bacterial infections were developed. These were planned to be piloted in 2020, but were put on hold due to the COVID-19 crisis. The implementation will start in 2021. In the meantime ECDC has progressively strengthened its collaboration with the e-health Network, leading to joint efforts for increasing interoperability of public health tools (e.g. EWRS, use of relevant anonymised data from electronic health records, epidemiological requirements for contact tracing apps), and for implementing the Commission Communication on enabling the digital transformation of health and care in the Digital Single Market; empowering citizens and building a healthier society.</p>	Ongoing
<b>Procurement</b>			
P9_TA-PROV (2020)0121 paragraph 16	Notes that, according to the Court's report, the Commission signed an inter-institutional framework contract with one contractor for the acquisition of software, licenses and the provision of the related IT consultancy services in 2014, and the Centre did not systematically check the prices and uplifts the framework contractor charged against suppliers' quotes and invoices; notes that, according to the Centre's reply, in practice it was difficult for the Centre to enforce such checks, as there was no contractual obligation requiring the original price and the uplift to be presented separately; <b>calls on the Centre to adapt ex-ante controls under framework contracts and ensure that there is competition in all procurements;</b>	The Commission contract for the services in question has been replaced by a new inter-institutional framework contract, which ECDC joined. The new contract foresees ordering through a re-opening of competition system that ensures competition and that the necessary ex ante controls are in place.	Implemented

Reference	Observation of the Discharge Authority	Response and measures taken by ECDC	Status/Reference
P9_TA-PROV (2020)0121 paragraph 17	Notes that, according to the Court's report, similar control weaknesses were found regarding the <u>implementation of a framework contract for the provision of conference and multimedia equipment and services</u> , and that the Centre did not sufficiently check whether the provision of a contractual discount rate had been applied to the product price list of the contractor's major suppliers before placing order forms in relation to that framework contract; notes that the Centre decided not to renew the contract after the expiry date in October 2019, and that that contract will be replaced by a new inter-institutional framework contract managed by the Commission; <b>calls on the Centre to adapt ex-ante controls on order forms;</b>	ECDC has not renewed the contract in question and instead joined the new inter-institutional framework contract for the services concerned. The new framework contract contains a more comprehensive price list against which the prices in order forms are systematically checked.	Implemented
<b>Other comments</b>			
P9_TA-PROV (2020)0121 paragraph 24	<b>Calls on the Centre to focus on disseminating the results of its research to the public, and to reach out to the public via the social media and other media outlets;</b>	<p>Since the beginning of 2020, ECDC has received an increased number of media requests (<b>over 1 000 unique inquiries from over 50 media outlets from all over the world</b>), and has experienced a tremendous increase in social media presence, as a direct effect to the Centre's response to COVID-19.</p> <p>In order to maintain an efficient response across all communication channels while maintaining the same internal capacity, this has required a shift in the approach to the communication response and support to the Centre's response to COVID-19.</p> <p>Therefore, in order to ensure an efficient and timely response across all channels, the communication section has performed an internal review of its internal processes, which resulted in the update of the PHE Communication group structure. This includes the internal related processes, with a focus on initiating several automated workflows that target increased response to media inquiries, better visibility and monitoring of ECDC's media presence at European and international level.</p> <p>In addition, the communication section is now developing a media landscape that targets a more proactive approach in media response and communication activities.</p> <p>In terms of social media, since January 2020, the ECDC corporate Twitter account has more than doubled its number of followers from <b>29 745 to 61 396 in July 2020</b>. The ECDC Outbreaks account has increased its number of Twitter followers by 163% from <b>6 975 in January to 18 347 in July 2020</b>.</p> <p>ECDC has also more than doubled its number of likes on Facebook from <b>14 146 in January to 37 165 in July 2020</b>.</p> <p>On LinkedIn, ECDC has also made significant gains, increasing its number of followers from <b>15 504 in January to 27 734 in July 2020</b>. Tweets from the ECDC corporate account have made <b>14.3 million impressions</b> since January 2020.</p> <p>In a continuous effort to improve its presence across various communication channels and ensure a better dissemination of ECDC's work and outputs to its public, in addition to a forward-looking view and addressing lessons learned from the ECDC response to the COVID-19, the communication section will now develop the new communication policy.</p>	Ongoing

## Environment management

ECDC performed an environmental assessment as an introduction to the implementation of an Environmental Management System based on the Eco-Management and Audit Scheme (EMAS) and was subsequently working on achieving EMAS certification. In addition, ECDC premises have been environmentally certified as a 'Green building' since 2018. In December 2020, the ECDC building received the environmental certification 'BREEAM Very Good'.

## Assessment by management

ECDC has five Units and a Director's Office. The Heads of Unit are responsible for the activities in their Units. There is also a level of middle management, where a number of Heads of Section are responsible for the activities. In 2020, ECDC reviewed the functioning of the Director's Consultation Group (DCG) and made changes in its structure making it leaner and more efficient. The new Internal Procedure on the Director Consultation Groups (DCG) was approved and fully implemented.

In 2020, the structure of the ECDC Integrated Management Framework (IMF) was developed and approved by the Director in January 2021. The objective of the IMF is to facilitate the effective and efficient management of the Centre. The main pillars of the ECDC IMF are governance, organisational performance (planning, monitoring, reporting), quality management and internal control framework. The implementation plan for ECDC IMF until 2027 will be developed in 2021 and it will be fully aligned with the roadmap for the IceCube programme (see Part I, section 8.1 *General management*).

Planning and monitoring activities are a crucial part of the ECDC management and control system. ECDC had a multiannual strategic work programme for 2014–2020 in place. To avoid overlap with the multiannual part of the Single Programming Document (SPD), it was decided to monitor ECDC's progress exclusively through the SPD as from 2017, until a long-term strategy (2021–2027) is in place. A set of indicators from the SPD is measured on an yearly basis in the annual report.

The Management Board revised the indicators in November 2017. A new set of indicators will be included in 2021, as part of the 2021–2027 strategy. ECDC internally monitors its annual work programme, including projects and recurring activities, on a quarterly basis. Their implementation is reported at each Management Board meeting and in the Annual Report of the Director. During the year, projects are discussed with the Units every quarter, and corrective actions are taken as necessary. The financing decision (list of procurements), annexed to the SPD, is reviewed at each meeting of the Management Board and updated (and approved by the Board) whenever needed. In 2020 the ECDC Management Board approved an amended Financing decision three times due to the necessary adjustments to the annual work programme in response to the COVID-19 pandemic.

The Management Information System supports the organisation of the day-to-day implementation of the work programme. A comprehensive set of reports provides overviews and summaries for the monitoring of activities. Dashboards of key operational data on budget execution and implementation of the work programme are communicated regularly to the DCG and managers.

## Part II (b). External evaluations

ECDC's Founding Regulation requires the Centre to organise external evaluations every five years to assess how it performs with regard to its mission. The third Independent External Evaluation of ECDC, conducted by Price Waterhouse Cooper (PwC), was concluded in 2018–2019. The report looked at the period 2013–2017. In response to the evaluation, the Management Board adopted a set of recommendations in its March 2020 meeting. Based on the recommendations of the Board, ECDC will develop an action plan for the implementation of actions. The implementation of the action plan will be monitored by the Management Board.

The evaluation provides insights into the progress made since the previous evaluation and points out areas for further improvements. The evaluation concluded that 'ECDC has successfully supported the EU and national policy priority areas and demonstrated the capacity to successfully adapt to policy developments, confirming the relevance of its activities'. ECDC's coherence and coordination with other relevant bodies was also evaluated positively.

The third external evaluation and the recommendations of the Management Board are available on the ECDC website<sup>i</sup>).

## Part III. Assessment of the effectiveness of the internal control systems

### Effectiveness of internal control systems

#### 1.1 Methodology applied for the assessment of effectiveness of the internal control system

ECDC assesses the effectiveness of the internal control system at least annually by assessing the implementation of the internal control framework, including the implementation of the indicators defined, and by assessing the main deficiencies noticed by ECDC itself or reported by others, including the Internal Audit Service and the European Court of Auditors.

#### 1.2 Internal control framework

The Management Board adopted the new ICF at its 43rd meeting in November 2018. Starting in 2019, the ICF forms the basis for ECDC's internal control system.

ECDC's ICF is designed to provide reasonable assurance regarding the achievement of the five objectives set in Article 30 of the ECDC Financial Regulation:

- effectiveness, efficiency and economy of operations;
- reliability of reporting;
- safeguarding of assets and information;
- prevention, detection, correction and follow-up of fraud and irregularities, and
- adequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of programmes as well as the nature of the payments concerned.

The framework supplements the ECDC Financial Regulation and other applicable rules and regulations, with a view to align ECDC standards with the highest international standards. The framework implemented by the European Commission served as a basis for defining principles and their characteristics.

The internal control system at ECDC is based on the five internal control components:

- the control environment,
- risk assessment,
- control activities,
- information and communication, and
- monitoring activities.

<sup>i</sup> Available from <https://www.ecdc.europa.eu/en/publications-data/third-external-evaluation-ecdc-2013-2017>

They are the building blocks that underpin the framework's structure and support the Agency in its efforts to achieve its objectives. The five components are interrelated and must be present and effective at all levels of the organisation for internal control over operations to be considered effective.

Each component of the internal control system adheres to several principles which facilitate the system's implementation and make it possible to assess the system's operability at the management level. Working with these principles helps provide reasonable assurance that organisational objectives are met. The principles specify the actions required for internal control to be effective.

The internal control framework moves away from a purely compliance-based system to a principle-based one, whereby the managers are offered the necessary flexibility to adapt to specific situations, characteristics and circumstances while ensuring robust internal control and consistent assessment throughout the Agency. This approach aims at helping the organisation to achieve its objectives and sustain operational and financial performance by establishing diverse and objective-based managerial processes that meet each entity's specific needs.

Ongoing monitoring of the effective functioning of internal control is built into business processes and performed on a real-time basis at all levels of the organisation. This enables the entities to react timely to changing conditions and correct deviations from intended performance and effectiveness levels.

The Agency must be able to demonstrate not only that controls are in place but also that these controls are effective in controlling risks and that they work as intended. Internal control principle 16 states that the assessment of internal control is founded both on ongoing (continuous) monitoring and on specific (periodical) assessments to ascertain whether the internal control systems and their components are present and functioning. ECDC must carry out an overall assessment of the presence and functioning of all internal control components at least once a year.

In 2019 the ICF was further reinforced with detailed indicators that were approved by the Management Board in November 2019, with a revision of the indicators performed in June 2020 as agreed with the Board.

The implementation of the ICF is assessed annually and reported to the Audit Committee of the Management Board. The assessment of the ICF for 2020 was performed in January–February 2021 and was presented to the Audit Committee in March 2021.

The main conclusions were as follows:

- The self-assessment performed regarding the implementation of the internal control framework showed that the internal control system is present and functioning, but some improvements are needed;
- On the component level, all five components are present and functioning, but some improvements are needed. On the principles level, eight principles are in place and functioning well with no or only minor improvements needed, while nine principles are present and functioning, but with some improvements needed;
- Overall 33 characteristics were rated as 'the characteristic is in place and functioning well, with no or only minor improvements needed', 13 characteristics were rated as 'the characteristic's control system is present and functioning, but some improvements are needed', 3 characteristics were rated as 'the characteristic is partially present and functioning, major improvements are needed' and none was rated as 'the characteristic is not present and functioning'.

The main improvements needed and the proposed deadlines are therefore:

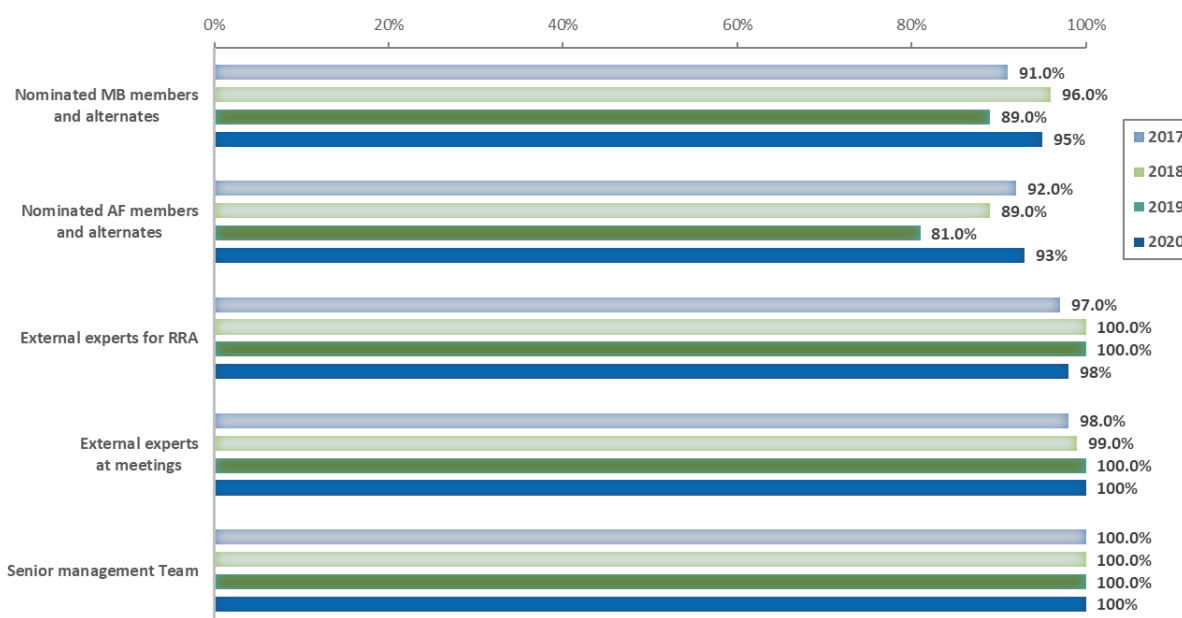
- Characteristic 6.7, risk tolerance and materiality: management needs to better define and document the materiality criteria of risk tolerance for ECDC activities. Deadline: Q4 2021;
- Characteristic 12.1, appropriate control procedures ensure that objectives are achieved: a lot of control procedures are in place, however, in the new format for internal procedures being developed, a new section will be introduced to explicitly consider the control activities to be performed and their follow-up. For all new and/or revised internal procedures this section shall be completed. Deadline: Q4 2021;
- Characteristic 14.1, internal communication: internal communication is performed on several subjects and through various channels, however, an internal communications policy is to be developed, including communication on the objectives and responsibilities of internal control. Deadline: Q4 2021.

### 1.3 Implementation and monitoring of the agency's policies for the prevention and management of conflict of interest

It is important that ECDC's products and communication are scientifically correct and impartial. As ECDC relies on many internal and external experts who together shape the Centre's scientific position, ECDC introduced an independence policy in 2016 that ensures transparency and identifies risk of conflicts of interest. The policy has since been split into two documents, with one document covering non-staff, including the Management Board and the Advisory Forum, and the other covering ECDC staff, including the ECDC Director and the Heads of Unit. A compliance officer oversees the implementation of this policy. An electronic system for the submission of declarations of interest minimises the amount of errors in the submitted documents. This facilitates the implementation of the independence policy and increases the compliance rate.

ECDC continued to apply and strengthen its independence policy for non-staff and for staff members. In 2020, the Centre lacked only a very small percentage of declarations: 5% of the appointed MB members/alternates did not file their Annual Declaration of Interest (ADoI) after the renewal of mandate (before the renewal, it was 3%), 7% of the appointed AF members/alternates failed to submit and 2% of the experts consulted for Rapid Risk Assessment (RRA) as well. This means that all members of the Management Board and Advisory Forum attending the meetings and thus contributing to the discussions had valid ADoIs. The Director and Heads of Unit filled their ADoI and all external experts at meetings submitted an ADoI.

**Figure 24. Percentage of declarations of interest received, by group**



### Conclusions of assessment of internal control systems

Given the control system in place, the information obtained from the building blocks of assurance mentioned below and the lack of critical findings from the Court of Auditors and the Internal Audit Service at the time of the declaration, there is no reason to question the effectiveness of the internal control system in place. However, some improvements are needed regarding the implementation of the internal control framework (as explained in paragraph 1.2 *Internal Control Framework* above).

The overall conclusion is that internal control system is present and functioning, but that some improvements are needed.

### Statement of the manager in charge of risk management and internal control

Not applicable.

## Part IV. Management assurance

### Review of the elements supporting assurance

The main building blocks of the Director's Declaration of Assurance are:

- The Director's own knowledge of the management and control system in place;
- The declarations of assurance made by each Authorising Officer by Delegation to the Director;
- The results of the self-assessment of internal control;
- The results of the self-assessment of the implementation of the Internal Control Framework;
- The results of the risk self-assessment exercises;
- The analysis and list of recorded exceptions;
- The status on the internal control and quality weaknesses reported;
- The results of the grant verifications known at the time of the declaration;
- The summary of OLAF activities;
- The observations of the Internal Audit Service known at the time of the declaration;
- The observations of the European Court of Auditors known at the time of the declaration.

There were no significant weaknesses reported from these building blocks of assurance that are considered to be of such a significance that they would have an impact on the Director's Declaration of Assurance.

## Reservations

### 2.1 Materiality criteria used regarding reservations

The concept of materiality provides the authorising officer with a basis for determining if an identified weakness should be subject to a formal reservation to the declaration of assurance or not. When defining whether an identified weakness is material, ECDC assesses both qualitative and quantitative aspects:

#### 2.1.1. Qualitative criteria

##### *2.1.1.1 Weaknesses leading to critical operational damage*

A detected weakness in the design or operation of ECDC's internal controls (affecting the Director's Declaration of Assurance) that would lead to critical operational damage. The severity of the operational damage is assessed mainly through the size and sensitivity of the issue and area concerned and the potential damage on ECDC and its operations.

##### *2.1.1.2 Weaknesses leading to critical reputational damage*

A detected weakness in the design or operation of ECDC's internal controls (affecting the Director's Declaration of Assurance) that would lead to critical reputational damage. The severity of the reputational damage is assessed mainly through the size and sensitivity of the issue and area concerned and the potential damage on ECDC's reputation, including the level of public interest.

##### *2.1.1.3 Critical observations by auditors or OLAF*

A critical observation made by the European Court of Auditors, the Internal Audit Service or OLAF could lead to a reservation. ECDC especially considers if the observation is made in an area covered by the Director's Declaration of Assurance, if the issue was not solved immediately during the reporting period, and if the impact is potentially material.

#### 2.1.2. Quantitative criteria

A quantifiable weakness in the control system is defined as material when ex-ante or ex-post controls detect errors regarding the legality and regularity of the underlying transactions of 2% or more (financial impact). Thereby, if the most likely error affecting the underlying transactions for the internal control system/area in question is 2% or more, a reservation should be made.

However, only if the internal control system/area affected by the potential reservation represents 2% or more of the total payments made by ECDC for the year in question (for 2020 set at a minimum of €1.2 million), otherwise no financial reservation is made (without prejudice to a reservation for qualitative reasons). The rate of 2% is based on the materiality rate applied by the European Court of Auditors.

### 2.2 Reservations for 2020

None.



## Part V. Declaration of assurance

### Declaration of Assurance

*I, the undersigned, Director of the European Centre for Disease Prevention and Control (ECDC),*

*In my capacity as authorising officer,*

*Declare that the information contained in this report gives a true and fair view<sup>1</sup>.*

*State that I have reasonable assurance that the resources assigned to the activities described in this report have been used for their intended purpose and in accordance with the principles of sound financial management, and that the control procedures put in place give the necessary guarantees concerning the legality and regularity of the underlying transactions.*

*This reasonable assurance is based on my own judgement and on the information at my disposal, such as the results of the self-assessment, ex-post controls, the work of the Internal Audit Service and the lessons learnt from the reports of the Court of Auditors for years prior to the year of this declaration.*

*Confirm that I am not aware of anything not reported here which could harm the interests of the European Centre for Disease Prevention and Control (ECDC).*

Stockholm, 24 February 2021



Andrea Ammon

Director

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<sup>1</sup> True and fair in this context means a reliable, complete and correct view on the state of affairs in the Agency.

## Annex 1. Core business statistics 2020

ECDC delivered 56% of the outputs initially planned in its Single Programming Document 2020–2022, and 90% of the outputs of the COVID-19 work programme approved in May 2020. 35% of the initially planned outputs were postponed to 2021 or cancelled.

The following table provide more detail on the implementation of the 2020 work programme by objective and related outputs.

SPD Objective	Expected outputs 2020	Status	Comments
<b>Strategy 1.1 Surveillance</b>			
1.1.1 Complete the optimisation of the technical surveillance platforms and processes as identified through the 'Surveillance Systems Reengineering' (SSR) project in the years 2015-2017.	1.1.1.1 New application for events and threats monitoring and assessment (replacing EPIS).	Postponed 2021	Go-live planned for April 2021.
	1.1.1.2. New surveillance portal giving access to all surveillance applications.	Postponed 2021	The surveillance portal and ETMS launches are interdependent.
1.1.2. Evaluate EU/EEA-level surveillance systems as per project plan.	1.1.2.1. Surveillance system evaluation reports as per project plan.	Postponed 2021	The evaluations planned for 2020 were postponed to 2021 due to COVID-19. All remaining evaluation reports will be finalised in 2021.
1.1.3. Use the EU/EEA surveillance system evaluations to define EU/EEA and national minimum surveillance standards and their monitoring indicators	1.1.3.1 EU/EEA surveillance standards and monitoring indicators for surveillance systems evaluated in 2018/19	Not started	Due to project manager and disease experts being busy with COVID-19 response. Standards and indicators for COVID-19 and influenza planned for 2021.
1.1.4. Publish in-depth surveillance data analyses in peer-reviewed open access scientific journals.	1.1.4.1. Peer-reviewed scientific articles, analysing surveillance data in depth.	Postponed 2021	Less expert time available due to COVID-19 work.
1.1.5. Consolidate and further develop molecular surveillance at EU/EEA level as per revised ECDC strategy and roadmap.	1.1.5.1. Molecular surveillance data analysis integrated in surveillance outputs.	Implemented	A minimum level of business continuity and routine activities (FWD, gonorrhoea, CPE) were kept but there was not expansion to new diseases. The bioinformatics background work was continued and support for sequencing offered.
<b>Strategy 1.2. Epidemic intelligence</b>			
1.2.1. Ensure timely and effective monitoring of potential threats from infectious diseases.	1.2.1.1 Daily Round Table report and weekly Communicable Diseases Threat Report (CDTR) made available through the situation awareness -module of the updated EWRS.	Implemented	In June 2020, EI activity resumed to normal activity by implementing the full screening for early detection
1.2.2. Ensure the proper coordination with the National Focal Points for threat detection (NFP).	1.2.2.1 Annual meeting of the NFP for threat detection jointly organized with the NFP for preparedness and response.	Implemented	NFP meeting on 7-8 May 2020 as a webinar.
1.2.3. Improve threat detection through Epidemic Intelligence screening	1.2.3.1 Contribute to the operation and improvement of the Epidemic Intelligence from Open Sources (EIOS) tool, in collaboration with WHO.	Implemented	Project piloted with COVID-19
	1.2.3.2 Pilot study to assess the benefits of trend analysis of social media sources for epidemic intelligence.	Implemented	The technical workshop planned for this project occurred on 3 and 4 June 2020
<b>Strategy 2.1 Scientific advice</b>			
2.1.1. Produce consistently high-quality scientific work and advice within agreed deadlines.	2.1.1.1 ECDC scientific outputs clearly categorised, following a structured format and providing sufficient information on rationale, applied methods, evidence base, analysis, as well as limitations and remaining uncertainties to allow informed decision-making on EU and Member State level.	Implemented	Production of scientific outputs is a continuous activity; non-PHE related requests and outputs were partly de-prioritised due to PHE; i.e. the number of non-PHE related outputs was lower but the reporting quality was not.
	2.1.1.2. High quality ECDC scientific outputs published on the Centre's website and/or as gold standard open access publication in peer-review scientific journals.	Implemented	
2.2.2. Develop, implement and assess processes that support the transparent, consistent and efficient production and clearance of scientific work and advice.	2.2.2.1. The ECDC Scientific Advice Repository and Management System (SARMS) is the sole support platform for the production and the clearance of all scientific outputs of the Centre.	Postponed 2021	
	2.2.2.2 SARMS contains templates and guidelines for the production of scientific	Delayed	Adaptation of SARMS to new organigram and development of

SPD Objective	Expected outputs 2020	Status	Comments
	outputs and supports the production and clearance process with e-workflows.		SARMS 3.0 incl. revision of and related templates, processes and guides was delayed due to lack of human resources.
	2.2.2.3 SARMS provides a comprehensive overview of the Centre's scientific outputs, supports peer-review and quality assurance, ensures compliance with ECDC policies and processes/procedures and monitors responsiveness to external requests to the Centre.	Implemented	
2.1.3. Build and strengthen strategic alliances, to identify and prioritise public health research needs, to increase and improve the evidence base for ECDC scientific advice, making the best use of scientific and technological developments in the fields of the Centre's remit.	2.1.3.1 Collaborative agreements and discussions with key partners (e.g., networks, EU-ANSA, learned scientific societies, EU research funders) to identify research needs and strengthen the take-up of tailored research efforts to close identified knowledge gaps.	Implemented	Less expert time available due to COVID-19 work, EU-ANSA May meeting cancelled and 2nd meeting took place virtually in December 2020; Observership week in early September cancelled in agreement with involved learned societies due to PHE; research need activities shifted to COVID-19.
	2.1.3.2 Strengthened understanding of scientific and technological developments and their possible impact on communicable diseases prevention and control, and better use of scientific and technological developments to further strengthen the public health capacities.	Postponed 2021	Less expert time available due to COVID-19 work, New technology assessment project was delayed due to the PHE; consultation meetings on digital technologies (original date March) and POCT (original date May) were postponed to 2021 due to non-availability of internal staff and external participants due to COVID-19; remaining work with contractor was slightly delayed but ongoing.
	2.1.3.3 Create synergies to further widen and improve the evidence base for scientific advice and the scientific capacity and expertise of the Centre, taking into consideration scientific and technological developments.	Postponed 2021	
2.1.4. Increase transparency of decision-making and prioritisation processes	2.1.4.1 ECDC prioritisation tool, IRIS is available as an easy-to-apply version for use at different levels of decision-making and priority setting at ECDC and is available to Member States and other stakeholders	Cancelled	Less expert time available due to COVID-19 work, current version of IRIS however could be used, when needed.
2.1.5. Strengthen knowledge and skills needed for evidence-based practice and decision-making in the area of communicable diseases epidemiology, prevention and control, supporting continuous professional development	2.1.5.1 Workshops on methods and tools for evidence-based practice and decision-making for ECDC staff and ECDC partners at EU and country level	Implemented	The first workshop took place end of January 2020. The second workshop planned to take place in May was cancelled.
2.1.6. Organise the European Scientific Conference on Applied Infectious Disease Epidemiology (ESCAIDE), in cooperation with Member States, European Commission services (including Directorate-General for Health and Food Safety, CHAFEA, JRC) and other EU agencies	2.1.6.1. 2020 edition of ESCAIDE hosted in Warsaw, Poland	Implemented	ESCAIDE 2020 took place as a virtual event.
<b>Strategy 2.2 Microbiology</b>			
2.2.1. Support the further strengthening and coordination of essential microbiology capabilities in Member States for surveillance, prevention and control of infectious diseases and antimicrobial resistance, informed by the EULabCap performance indicator monitoring.	2.2.1.1. Disease specific and generic laboratory and interdisciplinary capacity building activities, including EQA schemes and contribution to the standardisation of antimicrobial susceptibility testing (AST) and reporting of AST results	Delayed	Reporting on EULabCap and ENLabCap 2018 monitoring Contribution to the EU standardisation of antimicrobial susceptibility testing (EUCAST).
2.2.2. Provide technical support to the European Commission on public health reference laboratory networks for human pathogens	2.2.2.1. Technical support provided to the European Commission on public health reference laboratory networks	Implemented	Work focused on supporting EU pandemic response activities by COVID-19 laboratory testing guidance and capacity assessment and support in collaboration with competent networks of laboratories (EVD-LabNet, ERLI-Net)
2.2.3. Provide technical advice on public health microbiology methods and disseminate information to stakeholders and	2.2.3.1 Technical advice provided and disseminated on Public Health Microbiology methods and applications	Implemented	Work focused on supporting EU pandemic response activities by COVID-19 laboratory testing guidance

SPD Objective	Expected outputs 2020	Status	Comments
the public about the Centre's microbiology support activities			and capacity assessment and support in collaboration with competent networks of laboratories (EVD-LabNet, ERLI-Net)
<b>Strategy 3.1 EU and Country Preparedness Support</b>			
3.1.1. Support the European Commission in monitoring the implementation of Decision 1082/2013/EU (in particular Art. 4 – preparedness) by strengthening the scientific evidence base, conducting gap analysis of the Public Health emergency preparedness of individual Member States, and identifying areas for enhanced support	3.1.1.1. Technical assistance for the development and analysis of the new reporting cycle for art.4 for the HSC (gap analysis of the Member States' preparedness), including the identification of indicators to monitor progresses	Cancelled	The planned work in relation to the analysis of EU/EEA responses to Art 4/Decision 1082 was put on hold as reporting did not take place in 2020.
3.1.2. Support the exchange of knowledge and good practice among professionals and organisations at EU and regional levels, to further strengthen country response system capacities and capabilities, and promote applied research to reinforce the effectiveness of public health emergency preparedness in EU	3.1.2.1. Annual 'National Focal Points for Preparedness and Response' meeting with simulation exercise and competency-based training.	Implemented	Replaced by 9 webinars that took place in 2020.
	3.1.2.2. National preparedness plans reviewed through simulation exercises and/or country peer reviews in at least six countries, identified through needs assessments and analysis of surveys.	Postponed 2021	Material for the Simex developed according to schedule but Simex planned in October postponed to 2021
<b>Strategy 3.2 Response and emergency operations</b>			
3.2.1. Ensure timely and quality provision of rapid risk assessments (RRA) requested by the Commission and the Member States, or internally agreed during the daily ECDC round table; the Member States will be involved in their production.	3.2.1.1. Timely Rapid Risk Assessments for specific threats, according to the criteria defined in the decision 1082/2013/EU, on request from the Round Table, the European Commission and the Member States, with early participation of Member States in their production	Implemented	29 RRAs produced in 2020.
3.2.2. Reinforce ECDC experts' involvement in the response and recovery support activities for Member States and EU neighbouring countries facing infectious diseases outbreaks and crises	3.2.2.1 ECDC teams to support Member States and neighbouring countries in response and recovery phases of infectious diseases outbreaks and epidemics	Implemented	2 country missions to support Italy and Greece during the initial stages of the COVID-19 pandemic.
3.2.3. Ensure the participation of ECDC experts in international response missions, in cooperation with DG ECHO	3.2.3.1. Validate the mechanism through which ECDC and Member States' public health experts, actively participate in international missions, together with DG ECHO.	Delayed	Requested deployments will take place within the availability of resources and taking into account the possibilities to travel. The set-up of the formal collaboration agreement with DG ECHO is delayed due to the COVID-19 pandemic.
3.2.4. Improve the functionalities and operation of the remodelled EWRS, after release	3.2.4.1 All modules of the remodelled EWRS fully operational, with the integration of new Rapid Alert and Information systems into module 2 of the new EWRS, according to the agreement. Corrective maintenance carried out.	Implemented	
3.2.5. Ensure the continuous support to the Member States in risk assessment, response and preparedness to infectious diseases outbreaks, to maintain the safety of substances of human origin (SoHO)	3.2.5.1 Assessment of fungal and parasitic safety of SoHO	Implemented	
	3.2.5.2 Organise an expert meeting on malaria and SoHO safety	Cancelled	
	3.2.5.3 Perform biannual assessments of national donor testing and screening measures for blood, tissues and cells	Postponed 2021	
	3.2.5.4 Assess risks of infections transmission through SoHO in the ECDC rapid risk assessments	Implemented	
<b>Strategy 4.1 Training</b>			
4.1.1. Manage the 'ECDC Fellowship Programme' (with EPIET and EUPHEM paths) incorporating recommendations from the 2018-2019 external evaluation, and applying continuous quality improvement		Implemented	New FPAs for Scientific Coordination are in place
	4.1.1.1 Efficient integrated administrative routines, enhanced use of human resources and cross-discipline collaboration.	Delayed	Contract for roadmap of changes as follow up external evaluation is completed. Design of administrative changes, by Task Force Fellowship programme improvements, ongoing.
		Implemented	Due to COVID-19 Selection Cohort 2020 was done remotely by videoconferences. Modules are delivered online. Selection Cohort 2021 is ongoing (remotely).

SPD Objective	Expected outputs 2020	Status	Comments
		Delayed	Training Site Forum and National Focal Point online contacts in 2020, with next face-to-face meeting planned next to ESCAIDE 2021.
	4.1.1.2. Strengthened collaboration with other Fellowship Programmes, relevant to ECDC mandate in a One-Health and All-Hazards approach (e.g. EFSA, WHO, FAO, TEPHINET).	Implemented	Collaboration continued with EFSA and TEPHINET for Fellowship Programme (EPIE/EUPHEM), and with WHO, FAO, US CDC, OIE and Association of Public Health Laboratories, under Global Laboratory Leadership Programme (GLLP).
4.1.2. Offer a Continuous Professional Development Portfolio (CPDP) to professionals in the CCB Networks aiming at strengthening countries' and EU capacity to address cross-border health threats	4.1.2.1 Provision of a coherent CPDP offer to Member States, tailored to the competency-based training needs assessments conducted with the CCBs. The training offer includes: - The ECDC summer school, - The Winter Workshop, - Specific courses defined by the CCB networks to address emerging skills and competencies to address cross-border health threats; - Senior exchange visits, - Simulation exercises,	Postponed 2021	CPD in 2020, affected by COVID-19: -Summer School June 2020 is cancelled -Senior Exchange Visits in Q1 and Q2 are cancelled -Winter Workshop 2020 is cancelled.  E-learning courses, webinars, collaborative work online as distance learning is the main approach, due to social distancing/travel restrictions.  Important focus now on learning that supports PHE.
	- E-learning courses, webinars and other distance learnings provided to reach broader audiences, and adapt to modern ways of learning (new technologies)	Implemented	<a href="#">7 COVID-19 microlearnings produced on non-pharmaceutical measures, also including PPE</a>  Additional online activities on COVID-19 in the pipeline, based on training needs identified, on preparedness related subjects. E-learning course for management staff of institutions dealing with vulnerable populations, delivered, and translations launched in Jan 2021.
	4.1.2.2. Support the training of healthcare workers on the prevention and control of healthcare-associated infections (HAI), and the control of multidrug-resistant micro-organisms in healthcare settings that represent a cross-border threat (two short courses in 2020)	Postponed 2021	Outbreak investigation of healthcare associated infections – transformed in online activity, with Webinars (due to COVID-19) in 2021
		Delayed	MDRO is redesigned and developed as e-learning combined with synchronous distance training
	4.1.2.3 Pilot blended courses on motivational interviewing techniques for vaccine hesitancy, targeting General Practitioners and primary healthcare professionals, at the request of Member States and to be rolled out in more countries in future	Postponed 2021	Design and development of these activities in 2020-2021. Procurement launched will need to be relaunched in 2021. Courses to be delivered in 2021
4.1.3. Continue implementing the collaboration agreement with ASPHER	4.1.3.1. Network of ASPHER schools of public health with a training on communicable diseases control established and working closely with ECDC and National Focal Points for Training	Delayed	Because of COVID-19 and possible reorientation of the collaboration.
	4.1.3.2. Core competencies defined and curricula developed by joint ECDC/CCB/ASPHER working groups	On schedule	Implementation of Project to update competencies in applied infectious disease epidemiology is ongoing.
<b>Strategy 4.2 Coordinated country support</b>			
1. Set up internal tools and mechanisms to facilitate increased knowledge and follow-up of the Member States vulnerabilities and needs	1. System for Member States to express their needs, as part of the work programme preparation	Implemented	The system was agreed as part of improvements in future planning process, led by ExO.
	2. Internal mechanism to identify vulnerabilities and needs in Member States	Implemented	An external provider supported ECDC to define objectives for country overviews and requirements to set these up, to be used during 2021 to identify and work on an IT solution. A follow-up contract will be required in 2021 to finalise this work fully.
	3. Appropriate internal procurement solutions to address the identified vulnerabilities and needs	On schedule	This matter has been followed up by the DPR Unit and discussions are ongoing about identifying best procurement options for a framework

SPD Objective	Expected outputs 2020	Status	Comments
			contract in the area of country support.
<b>Strategy 4.3 International relations</b>			
1. Following the request from European Commission, finalise and follow-up the assessment of EU pre-accession countries	1. Technical assessment reports and initiation of national post-assessment action plans	Postponed 2021	The assessment and follow-up activities are being implemented as per EC requests. All pre-accession countries but one have been assessed in previous years. Four of them implement post-assessment action plans.
2. Further implement technical cooperation activities with pre-accession countries:  - prepare for the participation of EU pre-accession countries in ECDC  - support the advancement of One Health approaches against AMR in Western Balkan region (initiation of ECDC-IPA6 project, subject to award decision by the Commission)	2.1 Pre-accession assistance activities to prepare Western Balkan countries and Turkey for their participation in ECDC  2.2 Initiate technical cooperation activities on One-Health approach against AMR	Delayed  Postponed 2021	Due to COVID-19, a number of meetings that were planned before summer had to be cancelled or postponed. Due to limited availability of internal experts contributing to the project, some planned actions will be delayed.  Due to COVID-19 and heavy involvement of national authorities of Western Balkans in their national emergency response activities, initiation of technical cooperation activities on One-Health approach against AMR is being postponed.
3. Support the strengthening of communicable disease surveillance and control systems in Ukraine, Moldova, and Georgia. (Upon request from the European Commission, and in coordination with international partners)	3. Monitoring of post-assessment action plans and upon request technical cooperation activities implemented with these countries.	Implemented	Technical Assessment Report on Georgia provided to Directorate-General for Health and Food Safety on 1 July. No other commitments or requests from the Commission related to the three countries.
4. (Providing availability of EU financial assistance for EU Initiative on Health Security to ECDC under 2019 Security Package)  Further support the progressive integration of ENP partners countries into ECDC activities and enhance health security to strengthen the countries closest to EU borders' capacities to respond to health threats related to communicable diseases.	4.1 Follow-up of project under the European Neighbourhood Instrument (ENI) or other financial instruments initiated, and implementation started.  4.2 Sustainable capacity building initiative implemented in ENP partner countries and continuation of technical cooperation with ENP partners under ENI or other financial instruments.	Implemented  On schedule	Contribution Agreement with Directorate-General for Neighbourhood and Enlargement Negotiations was signed on 27 March 2020.  As a part of EU Initiative on Health Security development of self-assessment package to assess level of preparedness of ENP countries capacities to respond to public health emergencies is ongoing.
5. Strengthen and deepen ECDC cooperation with the major centres for disease prevention and control (CDCs) across the globe	5.1 Regular interaction with the contact points in other CDCs to coordinate, support and promote bilateral partnership 5.2 Monitoring and evaluation on the implementation of the Memorandum of Understandings/Administrative agreements	Implemented  Postponed 2021	Intensified in the course of 2020 to address COVID-19 challenges.
6. (Providing support and availability of EU financial assistance) Initiate technical partnership project 'ECDC4Africa CDC' to contribute to health security in Africa, by sharing EU practices and strengthening Africa CDC capacities in preparedness, surveillance, and response to health threats	6. Cooperation framework agreed between ECDC and Africa CDC to implement the technical partnership	Implemented	Contribution Agreement with DG DEVCO for 'EU for health security in Africa: ECDC for Africa CDC' signed.
7. Enhance the collaboration with WHO Europe and further implement the bilateral Administrative Arrangement (25 March 2011) and the General Principles of Collaboration (15 January 2018)	7. Reviewed set of processes for joint activities (e.g. joint reports, coordinated surveillance) under the collaboration framework with WHO Europe	Postponed 2021	
<b>Strategy 5.1 Health Communication</b>			
1. Ensure timely, easily available, impactful, reusable ECDC scientific, technical and corporate outputs that are adjusted to the needs of our target audiences	1. Timely communications of ECDC scientific, technical and corporate content adapted to its main target audiences through an array of communication channels, including the website and social media	Implemented	
2. Enhance ECDC's visibility as an independent, transparent agency that produces high quality scientific content	2.1 Media coverage of ECDC in (public health) European media 2.2 Communication support from ECDC experts' output in scientific publications, including peer reviewed journals	Implemented  Implemented	

SPD Objective	Expected outputs 2020	Status	Comments
	2.3 Active presence in ESCAIDE and other key public health conferences and meetings.	Implemented	
	2.4 Proactive presence in social media.	Implemented	
	2.5 Development and execution of corporate brand strategy	Postponed 2021	Due to COVID-19
3. Support sharing of knowledge, information and analysis among stakeholders, with a focus on strengthening communication capacity and preparedness in EU Member States	3.1 Capacity building activities (e.g. participating to country visits, ECDC materials, workshops) in the area of emergency risk communication	Postponed 2021	Due to COVID-19
	3.2 Support and joint activities with the communication working group of the Health Security Committee.	Implemented	
	3.3 Support to national health communication campaign activities, notably for the European Antibiotic Awareness Day (18 November 2020), in partnership with the WHO World Antibiotic Awareness Week, to raise awareness and change behaviour on prudent use of antibiotics and for the European Immunization Week	Implemented	
	3.4 Active collaboration and sharing of information across communities of risk and crisis communicators in Europe.	Implemented	
<b>Strategy 5.2 Eurosurveillance</b>			
1. Continue production of Eurosurveillance as an attractive and informative journal, with good visibility and reputation	1.1 50 issues published.	Implemented	Weekly issues published (n=50), including special issue on POCT and two COVID-19 collections
	1.2 Regular provision of information through social media	Implemented	Daily tweets and regular LinkedIn posts
	1.3 Educational article series/materials published and courses held	Cancelled	2020 workshops cancelled; educational article series has been put on hold due to PHE
	1.4 Provision of articles with data/evidence from at least 15 different European countries	Implemented	Over 15 European countries covered since January
<b>Strategy 6.1 Antimicrobial resistance and healthcare-associated infections - ARHAI</b>			
1. Improve the quality, sustainability and comparability of data of the surveillance systems for AMR and antimicrobial consumption at EU level	1.1 Comprehensive surveillance of AMR, including the first ECDC-WHO/Europe joint report on AMR surveillance in Europe in collaboration with the WHO Global Antimicrobial Resistance Surveillance System (GLASS), and assessment of the quality and timeliness of AMR surveillance data provided to ECDC in line with Decision 1082/2013/EU	Implemented	COVID-19. AMR data for 2019 are available from TESSy and from the ATLAS and were reported to WHO/Europe and GLASS. The first ECDC-WHO/Europe joint report on AMR surveillance in Europe is postponed to 2021. On 18 November, ECDC published a chapter on AMR as part of the Annual Epidemiological report 2019.
	2.2 Updated estimates of the number of deaths and disability-adjusted life years (DALYs) attributable to infections with antimicrobial-resistant bacteria	Postponed 2022	COVID-19
	2.3 Comprehensive surveillance of antimicrobial consumption, with the introduction of hospital-based surveillance of antimicrobial consumption	Implemented	COVID-19. Antimicrobial consumption (AMC) data for 2019 are available from TESSy and the ESAC-Net database. On 18 November, ECDC published a chapter on AMC as part of the Annual Epidemiological Report 2019.
	2.4 Joint analyses and harmonisation of surveillance of AMR and antimicrobial consumption with EFSA and EMA, including publication of the 3rd report on the Joint Interagency Antimicrobial Consumption and Resistance Analysis (JIACRA).	Postponed 2021	COVID-19. Publication of the 3rd report on the Joint Interagency Antimicrobial Consumption and Resistance Analysis (JIACRA) was postponed to 2021.
2. Provide advice, guidance, training and country support, to support activities on AMR in cooperation with the European Commission and Member States	2.1 Joint Country visits (5) with Directorate-General for Health and Food Safety, to discuss and assess the level of implementation of the EU legislation on AMR and HAIs in a one-health perspective, in Member States and Western Balkans	Postponed 2021	COVID-19
	2.2 Expert meeting on country visits to discuss AMR issues (update and revision of the assessment tool).	Implemented	

SPD Objective	Expected outputs 2020	Status	Comments
	2.3 Support to the European Commission on the implementation of the European One Health Action Plan against AMR, and close collaboration with Member States on the EU Joint Action on AMR and HAIs (EU-JAMRAI).	Implemented	
3. Improve the detection, reporting and assessment of AMR- and HAI-related threats to health through increased epidemic intelligence, molecular typing surveillance and risk assessments	3.1 European AMR Genes Surveillance Network (EURGen-Net) established, following completion of the centralised whole genome sequencing (WGS)-based surveillance of carbapenem- and/or colistin-resistant Enterobacteriaceae.)	Implemented	
	3.2 EPIS AMR-HAI platform to report cross-border health threats and outbreaks of AMR and HAIs and support risk assessments	Implemented	
4. Strengthen "One Health" and international collaboration on AMR	4.1 Support WHO on the implementation of the Global Action Plan on AMR, and contribution to the Transatlantic Task Force on AMR (TATFAR)	Implemented	Scope was reduced – TATFAR outputs postponed to 2021
	4.2 Contribution to the Actions "Working together to Fight AMR – South America" and "Working together to Fight AMR – Asia"	Postponed 2021	COVID-19
5. Improve the quality and sustainability of HAIs surveillance systems as well as comparability of data, at EU level	5.1 Updated comprehensive surveillance of HAIs, including for surgical site infections, intensive care units and Clostridium difficile infections	Postponed 2021	COVID-19
	5.2 Assessment of the usefulness and applicability of electronic data for surveillance of HAIs and decentralised storage of HAI surveillance data to enable confidentiality, e-surveillance at national level and cross-linking of hospital-based data	Postponed 2021	COVID-19 (only applies to assessment of the usefulness and applicability of electronic data for surveillance of HAIs; implementation of decentralised storage of HAI surveillance data continued)
	5.3 Preparation of the point prevalence surveys of HAIs and antimicrobial use in European acute care hospitals (2022) and for European long-term care facilities (2023).	Postponed 2021	COVID-19
6. Provide advice, guidance and sharing of good practices to support the prevention and control of HAIs and AMR in healthcare settings in cooperation with the European Commission and Member States.	6.1 Promotion of hand hygiene as an essential infection prevention and control measure, in partnership with the WHO "SAVE LIVES: Clean Your Hands" campaign	Implemented	
	6.2 Further implementation of the ECDC directory of online resources for the prevention and control of HAIs and AMR	Postponed 2021	COVID-19
<b>Strategy 6.2 Emerging and Vector-borne Diseases – EVD</b>			
1. Provide scientific advice on country preparedness and response to EVD-related threats.	1.1 Provision of risk assessments with the support of relevant networks (public health, laboratory and medical/veterinary entomology networks) and with a multi-sectoral approach	Implemented	
	1.2 Provision of evidence-based guidance and expert opinions supporting the preparedness and response activities to EVD	Delayed	COVID-19
	1.3 Modelling tools to support the decision-making (surveillance and vector control strategies) for mosquito-borne diseases in the EU/EEA.	Implemented	
	1.4 Meetings and trainings to strengthen the multi-sectorial collaboration among relevant stakeholders.	Postponed 2021	COVID-19
	1.5 Participation in ad-hoc country visits to assess preparedness or response plans for EVD.	Postponed 2021	COVID-19
2. Strengthen the surveillance of emerging vector-borne diseases through the implementation of notifiable EVD, the monitoring of vector distribution/abundance and seasonality, and the timely reporting on EVD epidemic-prone diseases	2.1 Analysis of TESSy surveillance data (using an integrated approach when appropriate)	Implemented	
	2.2 Strengthened the epidemiological surveillance and better understand the burden of specific EVD (e.g. Lyme disease).	Delayed	COVID-19
	2.3 Real-time surveillance of EVD (e.g. West Nile fever).	Implemented	
	2.4 Provision of data on human disease vectors and their pathogens for vectors and	Implemented	



SPD Objective	Expected outputs 2020	Status	Comments
	pathogens distribution mapping (ticks, mosquitoes and sand-flies).		
	2.5 Operating of the event-based surveillance system (event and threat management solution), collecting, analysing and assessing the EVD data	Implemented	
3. Increase laboratory capacity building for early detection and surveillance through an outsourced laboratory network in coordination with other EU initiatives	3.1 Maintenance of a pro-active and flexible network of European expert laboratories that are involved in diagnosis, in the support of public health activities and research activities	Delayed	COVID-19
	3.2 External Quality Assessment (EQA) on viral pathogens for vector-borne diseases.	Postponed 2021	COVID-19
	3.3 Provision of short training courses to improve the diagnostic capability of EU expert laboratories in the EU/EEA	Cancelled	COVID-19
4. Promote multidisciplinary networking and partnerships with international stakeholders	4.1 Strengthened EVD-related networks to share expertise, best practices and lessons learnt	Postponed 2021	COVID-19
	4.2 Strengthened collaboration between the public health network, the entomological network and the laboratory network as well as collaboration with their animal health counterparts	Postponed 2021	COVID-19
	4.3 Close collaboration with the European Commission, other EU agencies (e.g. EFSA), WHO and other international stakeholders (e.g. other CDCs).	Implemented	
<b>Strategy 6.3 Food- and Waterborne Diseases and zoonoses – FWD</b>			
1. Strengthen surveillance according to the "One Health" principle, to foster multidisciplinary analyses of collected data, including AMR, in collaboration with relevant EU agencies so that effective preventive and control measures can be implemented (short, medium, and long-term)	1.1 FWD surveillance and further gradual integration of WGS into surveillance of selected FWD, including AMR for Salmonella and Campylobacter as well as relevant validation/inter-laboratory studies according to the roadmap; collaboration with the WHO Global Antimicrobial Resistance Surveillance System (GLASS)	Delayed	WGS integration into surveillance of Salmonella and STEC infections postponed. WGS data reporting app advertised to countries and installation support offered. Reduced activity in detection and response to FWD outbreaks in the first weeks of COVID-19 but the number of FWD events under monitoring has increased during the summer and autumn.
	1.2 Applied scientific (multidisciplinary) analyses and outputs	Implemented	<a href="#">The manuscript "Genomic epidemiology of emerging ESBL-producing Salmonella Kentucky blaCTX-M-14b in Europe" published in Emerging microbes &amp; infections.</a> The report on European Listeria Typing Exercise (ELITE) was finalised for editing.
	1.3 ECDC and joint surveillance or thematic reports with sister EU agencies (EFSA, EMA).	Postponed 2021	"One Health" zoonoses and AMR reports (mandatory) are expected in time but some countries have challenges in reporting data by the deadline due to COVID-19 and delays in data processing are expected. Publication of One Health report postponed to February 2021.
2. Strengthen detection and investigation of multi-country food/waterborne and real-time travel-associated Legionnaires' disease (TALD) outbreaks, in collaboration with relevant partners, in the spirit of "One Health"	2.1 Communications by ECDC or jointly with EFSA on FWD cross-border threats to health	Implemented	Joint Notification Summaries (5) and Rapid Outbreak Assessments (2) have been produced for risk managers.
	2.2 Scientific communications.	Delayed	COVID-19
3. Promote the development of high quality capacity in national public health reference laboratories to detect, investigate and respond to emerging FWD and Legionnaires' disease (LD), and outbreaks, allowing comparison of molecular typing data nationally and globally with human, food, feed, animal, and environmental (water) data	3.1 External quality assessments services (EQA) and inter-laboratory studies for selected FWD and Legionnaires' disease	Implemented	The following EQA schemes were executed: Salmonella (tenth EQA), Shiga-toxin producing E. coli (ninth EQA), Listeria monocytogenes (seventh EQA). Antimicrobial susceptibility testing (AST) for Salmonella (sixth EQA) and AST for Campylobacter (sixth EQA).  Annual report for the EQA Legionella scheme EU/EEA countries was published.

SPD Objective	Expected outputs 2020	Status	Comments
	3.2 Capacity building opportunities through the FWD Expert Exchange Programme (FWDEEP)	Postponed 2021	COVID-19. One planned visit postponed to 2021.
4. Promote multidisciplinary networking and partnerships with international stakeholders to foster the sharing of best practices between Member States	4.1 Disease Network meetings	Implemented	FWD-Net meeting executed in March 2020 as a virtual meeting, ELDSNet annual network meeting was cancelled due to COVID-19
	4.2 Joint networks meeting between ECDC and the EU Reference Laboratory for antimicrobial resistance (EURL-AR).	Postponed 2021	COVID-19. Part of the meeting was arranged as virtual on the planned meeting date in April, the rest is postponed to March 2021.
	4.3 Collaborative activities with international stakeholders, e.g. WHO Regional Office for Europe and PulseNet International, US CDC.	Implemented	COVID-19. InFORM conference and PulseNet International Strategic steering committee meeting cancelled. TCs held instead.
	4.4 Collaborate and compare activities with relevant European Research projects, e.g. European Joint Programme on One Health.	Implemented	A supranational ECDC-EFSA sub-project is ongoing within ORION project but will be executed in a different manner as originally planned.
<b>Strategy 6.4 HIV, Sexually Transmitted Infections and viral Hepatitis – HSH</b>			
1. Improve the epidemiological understanding of HIV, hepatitis B and C, STIs, antimicrobial-resistant gonorrhoea and drug-resistant HIV, to support more effective decision-making by Member States and the Commission	1.1 Improved quality of surveillance data (including on drug resistant HIV and antimicrobial resistance of gonorrhoea, in collaboration with the WHO Global Antimicrobial Resistance Surveillance System – GLASS); surveillance systems further consolidated and analysis methods improved (including modelling estimates) to produce better, more relevant outputs for effective decision-making	Postponed	HIV/AIDS surveillance in Europe 2020, hepatitis annual epidemiological reports were published and EuroGasp reports made available to the network. HIV drug resistant surveillance cancelled.  Delays for STI and hepatitis surveillance due to staff re-allocation to the PHE.
	1.2 Alternative sources of data to better describe the burden of disease, in particular Hepatitis C: clinical data; prevalence sero-surveys; attributable mortality estimates and continue work to disseminate prevalence data through the online prevalence database and promoting sero-surveys	Postponed	Pilot on hepatitis C sentinel surveillance finalised. Updates on the prevalence database and HIV modelling are postponed till 2021-22 due to re-allocation of staff to the COVID-19 response.
	1.3 Country visits in response to specific requests by Member States to strengthen their processes and expert capacity	Cancelled	No requests received.
	1.4 Consultation and coordination of the HIV, Hepatitis or STI surveillance networks (annual coordination committee meetings), and STI and HIV (network meetings), in close collaboration with key stakeholders	Postponed	A virtual TB, HIV and viral hepatitis network meeting was jointly organised with WHO and a virtual HIV meeting took place. Physical network meetings were cancelled, due to the ongoing COVID-19 pandemic. The HIV disease network coordination committee meeting took place. The disease network coordination committee meetings for hepatitis and STI were postponed. The combined coordination committee meeting was cancelled.
2. Strengthen international cooperation on HIV, Hepatitis B and C, and STI with relevant stakeholders to create synergy and improve efficiency	1. Support to the international response by participation in major meetings or conferences organised by key partners and invite them to participate in relevant ECDC conferences or meetings	Cancelled	Major meetings were cancelled due to the COVID-19 pandemic.
3. Support the European Commission and Member States through the provision of sound, and evidence-based technical advice and guidance, including relevant monitoring and evaluation and capacity building, including exchange of experts and study visits	3.1 Country missions, jointly with WHO or EMCDDA, to provide technical support to Member States on HIV, STI and Hepatitis issues	Postponed 2021	One request received but postponed by Member State after start of COVID-19 pandemic.
	3.2 Reports to monitor the response to HIV and Hepatitis in Europe, focussing mainly on indicators relevant to the sustainable development goals (SDGs), Dublin Declaration and the UN General Assembly commitments, in collaboration with WHO, EMCDDA and UNAIDS (sharing of data to reduce duplication of reporting).	Delayed	Some delays due to Member State engagement in the COVID19-pandemic. Monitoring reports are planned for 2021.
	3.3 Technical reports and Scientific Guidance on topics identified by Member States and the	Delayed	Support to MS reduced, instead focussing on COVID-19 support.

SPD Objective	Expected outputs 2020	Status	Comments
	Commission as priority areas. Commence work on updating the joint guidance on Prevention and control of infectious diseases among people who inject drugs, produced in 2011		Work on enhancement of STI testing in MSM (including PreP users) and review of congenital syphilis data in countries cancelled. PreP operational guidance publication delayed till 2021. Delays for the update on the PWID guidance due to delay in signing the contract. Publication of the guidance postponed till end of 2021.
4. Communicate broadly ECDC evidence-based reports and outputs, and contribute to raising awareness in particular on the burden of HIV and hepatitis.	4.1 All major technical outputs (including evidence briefs) include elements to ensure that the evidence can be used to support efficient decision-making	Implemented	
	4.2 World AIDS Day, World Hepatitis Day, Hepatitis and HIV and Hepatitis Testing Weeks and similar events supported with a variety of external communication activities and outputs	Implemented	
	4.3 Participation at relevant expert meetings from key partners and presentation of ECDC outputs	Implemented	The number of meetings was reduced due to the COVID-19 pandemic.
<b>Strategy 6.5 Influenza and other respiratory viruses – IRV</b>			
1. Transform the European surveillance of influenza and other respiratory viruses, in collaboration with WHO Europe and the NFP for influenza and other respiratory viruses, based on the result of evaluations and projects conducted in 2019	1.1 Pilot of a revised influenza surveillance system for European Influenza Surveillance Network, based on a proposal developed in 2019	Postponed 2021	Finalization of proposal and pilot to be postponed, due to focus on COVID-19 response and dependencies for emerging COVID-19 surveillance.
	1.2 Further work on forecasting/now-casting of yearly seasonal influenza epidemic, based on a modelling feasibility study performed in 2019	Postponed 2021	Work in 2020 cancelled, due to focus on COVID-19 response.
	1.3 Weekly high-quality and high-impact surveillance reports on FluNewsEurope.org during the season	Implemented	
2. Enable early detection, monitoring, scientific advice, and preparedness for zoonotic and other emerging respiratory viruses (including MERS-CoV and avian/swine influenza viruses)	2.1 Timely high-quality risk assessment and scientific advice on emerging respiratory pathogens	Implemented	
	2.2 Support to European and international outbreak assessment missions	Implemented	Covered under COVID-19 response.
	2.3 Quarterly ECDC/EFSA avian influenza reports	Implemented	
3. Strengthen laboratory and surveillance capacity among the network through training and laboratory support	3.1 Online training and wet lab courses offered to Member States' network members.	Cancelled	Some additional online trainings prepared under COVID-19 response.
	3.2 Technical working group on virological surveillance	Cancelled	Work in 2020 cancelled, due to focus on COVID-19 response.
4. Support Member States' vaccination programmes by monitoring vaccine effectiveness and safety signals, and through communication campaigns	4.1 Timely vaccine effectiveness estimates available to stakeholders	Implemented	
	4.2 Expert meeting/review of evidence to support impact analysis for newly established influenza vaccination programmes, within the NITAG collaboration	Postponed 2021	NITAG work is re-focused to support COVID-19 response in the form of information sharing on therapeutics future vaccines, but no formal systematic reviews or expert meeting are planned.
	4.3 Ecological/observational study to assess the annual impact of vaccinations on morbidity and mortality of influenza	Postponed 2021	Work in 2020 cancelled, due to focus on COVID-19 response.
	4.4 Lines to take for communication plans on the larger impact of seasonal influenza and vaccination on individuals and society, based on available evidence.	Postponed 2021	Work in 2020 cancelled, due to focus on COVID-19 response.
	4.5 Expertise and support to the European Commission for Joint Procurement of pandemic vaccines	Implemented	Covered under COVID-19 response.
5. Monitor and strengthen pandemic preparedness in the EU by supporting the European Commission, the Health Security Committee, the Member States and international partners	5.1 Assessment of preparedness through e.g. case studies, country visits, simulation exercises, and after-event reviews	Cancelled	Work in 2020 cancelled, due to focus on COVID-19 response.
	5.2 Scientific advice to the Health Security Committee/ Directorate-General for Health and Food Safety / WHO Pandemic Influenza	Cancelled	Work in 2020 cancelled, due to focus on COVID-19 response.

SPD Objective	Expected outputs 2020	Status	Comments
	Preparedness (PIP), as requested and technical support to the PIP implementation process		
	5.3 Scientific support to the EU joint procurement process, upon request.	Implemented	Covered under COVID-19 response.
	5.4 Regional pandemic preparedness workshop/exercise and country support for pandemic preparedness and planning, upon request	Cancelled	Work in 2020 cancelled, due to focus on COVID-19 response.
<b>Strategy 6.6 Tuberculosis - TB</b>			
1. Strengthen (drug resistant) TB (molecular typing) and latent tuberculosis infections (LTBI) surveillance at national and EU level to reach an adequate coverage and completeness in order to: - inform TB prevention and control actions,  - monitor against agreed targets	1.1 Updated TB data analysed and reported	Implemented	Tuberculosis surveillance and monitoring report 2020 was published and data collection and analysis of 2019 performed.
	1.2 Collaboration with the WHO Global Antimicrobial Resistance Surveillance System (GLASS).	Implemented	
2. Strengthen the TB laboratory services: - for the management of TB: all TB suspects tested with adequate and rapid diagnosis tests; all laboratory confirmed TB cases tested for drug resistance;  - for the detection and investigation of clusters: use of adequate molecular typing methods	2.1 Strengthened European Reference Laboratories through implementation of the European Reference Laboratory Network for TB activities including an annual meeting, training of laboratory experts, and external quality assessment	Implemented	ERLTB-Net network meeting held and other network activities implemented.
	2.2 Results of a pilot study on the use of Whole Genome Sequencing for molecular typing and characterisation of <i>M. tuberculosis</i> in the EU/EEA	Delayed	Partially postponed to 2021 due to re-allocation of staff to the COVID-19 response.
3. Support TB prevention and control efforts of Member States to progress towards ending TB	3.1 Country visits and consultancies for countries	Cancelled	No requests for country visits received.
	3.2 Capacity building for persons involved in key strategic areas of TB prevention and control	Implemented	2 workshops organised.
4. Provide relevant up-to-date scientific advice on TB prevention and control to support the European Commission and the Member States and disseminate the advice according to the dissemination plan	4. Timely high quality scientific advice to support the European Commission and the Member States, including support for the Joint Procurement Procedures under Article 5 of Decision No 1082/2013/EU, (in particular BCG vaccines against tuberculosis).	Postponed 2021	The work on health system strengthening for tuberculosis elimination was postponed to 2021. Delays in the follow up of health guidance on LTBI, due to involvement of staff in the PHE.
<b>Strategy 6.7 Vaccine-preventable diseases – VPD</b>			
1. Establish and coordinate a European Vaccine Information Sharing System (EVIS) as requested by Art. 9 of Council Recommendation on Strengthened Cooperation Against Vaccine-Preventable Diseases	1.1 Feasibility study on core EU vaccination schedule to improve compatibility of national schedules and promote equity in Union citizens' health protection	Postponed	Delays due to COVID-19 and staff shortages. Input required from MS, currently burdened by the pandemic. Large elements of the work have not been launched yet and are postponed to 2021.
	1.2 Scientific evidence and tools to support the National Immunisation Technical Advisory Groups (NITAGs) and national recommendations on immunisation	Implemented	NITAG work is re-focused to support COVID-19 response with specific focus on future COVID-19 vaccines and future vaccination strategies/deployment planned in the MSs..
	1.3 EU pilot system launched to collect and share data on vaccination coverage rates across the life-course	Postponed 2021	Delays due to COVID-19 and staff shortages. Input required from MS, currently burdened by the pandemic. Elements of the work are thus delayed and postponed to 2021. Focus in 2020 is on the collection of seasonal influenza vaccination coverage data for the previous season and assessing how to set up a framework for the collection of COVID-19 vaccination coverage data.
	1.4 European Vaccination Information Portal, jointly established with EMA	Implemented	
	1.5 Evidence and tools to counter online vaccine misinformation	Delayed	Work is ongoing with delays and main outputs expected in 2021, also taking into account aspects around COVID-19 situation

SPD Objective	Expected outputs 2020	Status	Comments
2. Consolidate the collaboration between the National Focal Points for VPD and the National Immunization Technical Advisory Groups (NITAGs) to allow the provision of scientific advice to countries on key VPD and immunisation issues, in line with the Council Recommendation	2.1 Scientific and technical advice for effective decision-making at national level on immunisation issues	Postponed 2021	HPV guidance delayed but to be published in 2020. Outputs on pneumococcal vaccination previously foreseen will be produced in 2021-2022.
	2.2 Sharing of scientific products/outputs between Member States	Implemented	Pilot collaboration with NITAG is ongoing with a refocus of activities on COVID-19 vaccines
3. Strengthen the EU epidemiological and laboratory surveillance for VPDs and the infrastructures to monitor the impact and effectiveness of priority vaccines and vaccination programmes	3.1 Evidence for action to support disease control and/or elimination/ eradication targets	Implemented	
	3.2 Analyses and modelling studies on measles, to identify immunity gaps and priority groups for vaccination	Cancelled	Cancelled due to COVID-19 and staff shortages.
	3.3 Studies on the epidemiological burden of VPDs across later years of life	Cancelled	Cancelled due to COVID-19 and staff shortages.
	3.4 EQAs/laboratory support in key priority areas, incl. molecular surveillance of meningococcal disease	Postponed 2021	Plans for the molecular surveillance of meningococcal disease ongoing. EQAs and lab support for pertussis on schedule. Lab support for diphtheria and the IBDs is delayed and postponed to 2021.
	3.5 Hospital-based surveillance networks launched for priority VPDs (pertussis, pneumococcal disease, Respiratory Syncytial Virus, and influenza), to estimate the effectiveness and impact of vaccine/vaccination programmes	Postponed 2022	Delays due to COVID-19 and staff shortages. In 2020 the focus will be on drafting new framework contracts for a launch and implementation not foreseen before 2022. In 2021 most of the work on effectiveness studies that will be undertaking will be in preparation for the monitoring of future COVID-19 vaccines, incl. in collaboration with the EMA.
4. Develop evidence and tools to address vaccine hesitancy, with focus on the provision of objective and transparent information on vaccines and vaccination and support to national communications campaigns	4.1 European Vaccination Information Portal, primarily targeting the general public, in collaboration with EMA/ Directorate-General for Health and Food Safety, to provide objective, transparent and updated online evidence on vaccination and vaccines benefits, safety and pharmacovigilance	Implemented	
	4.2 Evidence-based information tools and guidance to counter online vaccine misinformation and support the Member States response to vaccine hesitancy	Postponed 2021	Work is ongoing with delays and main outputs expected in 2021, also taking into account aspects around COVID-19 situation.
	4.3 Training modules for primary healthcare professionals to strengthen effective communication skills towards vaccine hesitant individuals	Delayed	New timeline and scope defined in order to continue the work in 2021 due to procurement issues.
	4.4 Support to national campaigns during the European Immunisation Week 2020, in close collaboration with WHO Europe	Cancelled	Cancelled due to COVID-19 and staff shortages.
5. Provide timely response to ad hoc requests for scientific advice from the Member States as well as scientific and technical advice to support programmes and activities on vaccination implemented by Directorate-General for Health and Food Safety /CHAFEA/DG RESEARCH/EMA, other EU actors and WHO	5.1 Technical support to Directorate-General for Health and Food Safety /CHAFEA to implement the Council Recommendation on Strengthened Cooperation Against VPDs and technical input to the Joint Action on Vaccination	Implemented	
	5.2 Technical support to Directorate-General for Health and Food Safety on the Joint Procurement of medical countermeasures (Art. 5 Decision 1082/2013/EU) for VPDs	Cancelled	Not requested by Directorate-General for Health and Food Safety
	5.3 Technical support to WHO Europe and WHO HQ on measles and rubella elimination, polio eradication, and European and global coordination on immunisation (ETAGE, SAGE)	Implemented	
<b>Strategy 4.8 CROSS ORGANISATIONAL INITIATIVES</b>			
<b>Foresight programme</b>			
1. Foresight programme for VPD and AMR established and operationalised with internal and external partners and stakeholders.	4.8.1.1 Foresight studies that address infectious disease transmission in the future and/or their relevant underlying drivers identified through scoping literature review.	Postponed 2021	Due to COVID-19, but lot of scenario and modelling studies were shifted to COVID-19 instead

SPD Objective	Expected outputs 2020	Status	Comments
	4.8.1.2 Scenarios or alternative futures of infectious disease threats identified.	Postponed 2021	Due to COVID-19
	4.8.1.3 Intervention strategies to mitigate the potential adverse impacts from these scenarios identified.	Postponed 2021	Due to COVID-19
<b>E-health and digitalisation</b>			
2. Support Member States in upgrading their electronic healthcare databases to enable automatic data transfer of surveillance data	4.8.2.1 Catalogue of Member States eHealth systems and the features relevant for enabling EU surveillance	Postponed 2021	COVID-19
3. Harness the potential of eHealth to the benefit of immunisation, by providing technical guidance and support to countries to improve the performance and monitoring of vaccination programmes.	4.8.3.1 Technical guidance and country support on core data requirements for the development of key immunisation information system functionalities.	Postponed 2021	COVID-19
<b>MANAGEMENT</b>			
<b>Strategy 7.1 General Management</b>			
1. Ensure seamless management and coordination of ECDC activities, and increased effectiveness and efficiency in implementing the Centre's mission and programme of activities	1.1 ECDC Strategy 2021-2027 rolled-out, including improved monitoring system and new Key Performance Indicators	Implemented	Detailed roadmap due to unavailability of experts involved in PHE Roadmap and strategic KPIs approved by the MB in November 2020.
	1.2 Implementation and monitoring of the SPD 2020, including project management and internal control	Implemented	
	1.3 Recommendations from the third ECDC external evaluation 2013-2017 addressed	On schedule	Recommendations approved by the MB. To be addressed in the years to come, through the implementation of the ECDC Strategy 2021-2027.
	1.4 Future ECDC integrated management system defined, and implementation started	Implemented	Work on instructional documents and IMF ongoing
	1.5 ECDC key processes reviewed, optimised and digitalised, according to plan.	On schedule	Digitalisation on schedule Process review is on-going and will focus on administrative processes initially to not overload scientific experts during the COVID-19
	1.6 Continuous improvement, including quality management framework defined	Implemented	
	1.7 Improvement plans resulting from internal evaluations monitored	Implemented	
2. Apply the independence policy in a proportional manner to all meetings organised by ECDC	2. All Declarations of Interest timely checked, using an electronic submission and storage system	Implemented	Conitnuous improvement of the electronic tool.
3. Ensure seamless communication with the Member States and coordinate the smooth implementation of Governance meetings	3.1 Enhanced cooperation with and involvement of key stakeholders (AF, MB and CCB) through optimised processes	Implemented	
	3.2 Improvements to the Stakeholder Relationship Management system (SRM) introduced to further facilitate interactions between key stakeholders and ECDC	Delayed	Contractor dependent delays in the application development
<b>Strategy 7.2 Collaboration and cooperation</b>			
1. Maintain appropriate relationships with the European Parliament (EP), in particular with the Committee for the Environment, Public Health and Food Safety (ENVI)	1.1 ECDC Director's annual exchange of views with the ENVI Committee of the European Parliament and, upon request, appearance before Parliamentary Committees.	Implemented	The Annual Hearing before the ENVI Committee took place on 3 Feb 2020. In addition, several virtual hearings with the ECDC Director on COVID-19 have taken place during the spring and summer of 2020
	1.2 Biannual invitation for a delegation from the ENVI Committee (Environment, Public Health and Food Safety) of the European Parliament to visit ECDC. Provision of scientific opinions as requested by EP	Postponed 2021	The visit is postponed until Q3 of 2021 due to COVID-19 and existing travel restrictions
	1.3 Information of ECDC activities and of the Centre's disease specific areas in a format useful for making decisions	Implemented	
2. Maintain and further enhance the cooperation with our host country, Sweden, via the designated contact person at the Swedish Ministry for Health and the ECDC Liaison	2.1 Actions as per agreement on strategic co-operation between ECDC and the Swedish Government, represented by the Ministry of Health and Social Affairs	Implemented	Several meetings and visits to ECDC took place, incl. by the Swedish Prime Minister, the Swedish Minister for Health and by the Minister for European Affairs (during the months of February and March 2020)

SPD Objective	Expected outputs 2020	Status	Comments
	2.2 Liaison on a regular basis with key persons at the Ministry of Health and Social Affairs	Implemented	
	2.3 Sharing of experiences, evidence and expertise with the Swedish authorities	Implemented	
3. Maintain and further enhance the cooperation with key stakeholders at the EU-level	3. ECDC participation and interaction in the European Health Forum Gastein	Implemented	ECDC organised a virtual session on unlocking the potential of data in light of the early lessons learnt from COVID-19 at the European Health Forum Gastein Webinar, 2 Oct. 2020.
4. Further develop seamless, timely and efficient procedures for cooperation with the European Commission, in particular for the implementation of Decision 1082/2013/EU	4.1 Strategic planning meeting with Directorate-General for Health and Food Safety to align the work	Implemented	
	4.2 Activities of ECDC to support and complement the work of Directorate-General for Health and Food Safety and CHAFEA	Implemented	
5. Strengthen the existing collaboration with EU agencies through aligned planning, reporting, and monitoring of joint activities	5. Processes in place to ensure alignment of planning, reporting, and monitoring of joint work.	Postponed 2021	
<b>Strategy 7.3. RESOURCES MANAGEMENT</b>			
1. Ensure efficient budget and financial management	1.1 Provide the annual accounts of the Centre	Implemented	
	1.2 Ensure the preparation of draft, approved and amending budgets	Implemented	An amending budget was approved by the MB for distributing the additional EUR 3.6 million in 2020 approved by the 1st amending EU budget 2020. The 2020 budget was reduced by EUR 1 700 000 following the Global Transfer Exercise held in August 2020.
	1.3 Perform financial initiation and ex-ante verification and provide financial advice and support to all Units of the Centre	Implemented	

SPD Objective	Expected outputs 2020	Status	Comments
<p>2. Ensure that ECDC has adequate and effective staffing in order to fulfil its strategic objectives</p>	<p>2.1 Increased opportunities for scientific and non-scientific staff to develop and utilise their skills in the most effective ways; increase self-awareness of their roles and responsibilities</p>	<p>Implemented</p>	<p>The training offer has been altered to take account of staff working remotely due to COVID-19. Thus, the face to face courses will instead be deployed as remote training. The activity is on schedule taking into account the time needed to make the transition. There is however, a high likelihood that staff involved in PHE work have limited availability for training which may result on partial delay or even cancellation of trainings towards the end of the year.</p> <p>The Covid-19 pandemic disrupted the traditional ways of deploying training but the organisation quickly moved to offer on-line training and other ways to up-skill scientific and non-scientific staff e.g. a monthly newsletter was created with information and direct links to online training for various topics related to staff learning needs. In addition to this, managers received support for up-skilling of their managerial skills to cope with staff working remotely (e.g. how to manage by objectives). Both individual and team coaching opportunities were offered online. From March, when the organisation went into teleworking mode, staff and managers quickly adapted to work with MS Teams as a means of communication online. In general, staff benefited from training, but the trends have changed towards on-line, individual training, bite size trainings provided when the staff member is available for learning.</p>
	<p>2.2 'Field Deployment Support Programme' – supported by external expertise in preparing ECDC staff for field missions and upon return from the deployment</p>	<p>Postponed 2021</p>	<p>ECDC is currently looking into possibilities for developing a frame for such support with external providers.</p>
	<p>2.3 Health and wellbeing support to staff in PHE operations and field deployments in cooperation with the medical and counselling service providers.</p>	<p>Implemented</p>	<p>A particular focus was put on the health and wellbeing of staff in view of the COVID-19 pandemic. Online lectures on stress prevention were held to staff and managers. In-house doctor's phone consultations were doubled as of March (when the Centre started mandatory teleworking). Furthermore, the counselling services turned into online services. The teleworking and time management provisions were also modified to ensure staff takes enough breaks.</p>
<p>3. Ensure continuous improvement, efficiency and effectiveness for support activities</p>	<p>3.1 Continuous improvement culture, Enterprise Architecture, Information Management to increase quality outputs, efficiency, free up staff time and improve decision making</p>	<p>Implemented</p>	<p>Business architecture will be part of the development and implementation of the IMF.</p> <p>The activity part of the new Integrated Management Framework finalised in 2020 and will be further refined and deployed in 2021.</p>
	<p>3.2 e-Administration programme as a unique continuous improvement frame for all administrative process automation related initiatives in close collaboration with the European Commission</p>	<p>Implemented</p>	<p>The original e-Administration programme has been implemented and a broader assessment of the future steering and support systems initiated (so-called IceCube project). The project will deliver a roadmap for the architecture of the steering and support systems, together with an initial implementation plan, in 2021.</p>
	<p>3.3 Further development of electronic workflows (particularly for procurement) to</p>	<p>Delayed</p>	<p>8 out of the 12 workflows planned to be available by end 2020. Delays due</p>



SPD Objective	Expected outputs 2020	Status	Comments
	simplify and ensure better compliance with internal processes		to difficulties in procuring IT application expertise.
	3.4 Operate within ECDC new premises, in a healthy and highly collaborative environment including business continuity and crisis management plans fully operational	Implemented	Testing of ECDC Business Continuity and Crisis Management plans done in Q2. Simulation exercise done in Q4.
4. Strengthen transparency and accessibility to the information generated or held by ECDC in a secured way	4.1 Enhanced knowledge sharing with decision makers and the general public, compliant with the legal frameworks and rights of third parties (data protection and Regulation 1049/2001)	Implemented	
	4.2 As part of ECDC Enterprise Architecture approach, operate the Information Architecture domain, coordinating all information management operations and new initiatives under the Information Governance Steering Committee (IGSC).	Implemented	Coordination through meetings of IGSC
	4.3 Maintenance and improvement of information management policies and internal procedures to enable efficient and transparent information access and retrieval. Effective operations enabling creation, distribution, retention and/or final disposition of information, in accordance with Council Regulation No 354/83, amended by CR (EU) 2015/496.	Implemented	Review of internal instructional documents structure: draft action plan in progress Document Management System evaluated (action plan approved), and updated to support the new organisation
	4.4 Continue the implementation of General Data Protection Regulation (GDPR).	Implemented	
<b>Strategy 7.4 Information and Communication Technology</b>			
1. Ensure ECDC operations by maintaining high availability of IT infrastructure services.	1. Maintained and secure infrastructures and applications, hosted as per SLA requirements.	Implemented	The applications and the technical services are currently operated with fulfilment of the indicators according to the SLA. The SLA targets are met.
2. Deliver IT solutions to support the annual work programme and maintain existing products, ensuring their reliability, their security, their need to meet evolving business needs and interoperability, taking into account the recommendations of the European Interoperability Framework)	2.1 New systems developed as per ICT work plan commitments, respecting the recommendations of the European Interoperability Framework	Implemented	Procurement for new workflows has been completed and results have been delivered. Inception finalised for the Newly Integrated data Validation, Analysis and Access (NIRVANA) project. Ongoing work on the Integrated Steering and Support Systems (IceCube) project (assessment of "as-is" situation).
	2.2 Existing solutions maintained as per ICT work plan commitments	Implemented	Basic maintenance and further development activities have been completed, and existing workflows have been updated. Development of new e-Workflow has been completed.
3. Transformation programme IT-2021 implemented	Target operating model implemented, which includes: - Previously decentralised maintenance activities are centralised; - IT activities (services and IT products in scope) taken over by external service provider and service quality has been stabilised; - ICT services delivered, based on agreed service levels, measured and controlled; - Established processes evaluated, measured and improved.  - Functional Architecture (based on the interaction, insight, support and integration domains) defined.	Implemented	The new Target Operating Model (TOM) has been achieved through the implementation of the multiannual IT2021 Transformational programme. The programme covered a number of activities and projects which are contributing to the TOM. Programme management plan was elaborated, approved and followed since 2018. The progress of the programme is regularly discussed during the DTS-PSC meetings, which acts as IT-2021 Programme board. A communication strategy and plan have been elaborated and followed. The main internal stakeholders are regularly informed through publications on Intranet and workshops. IT-2021 progress report was presented to DCG in March. A new DTS Unit structure was implemented from 01/10 as part of IT-2021. The program delivered the expected objectives and most of the projects are now closed.

SPD Objective	Expected outputs 2020	Status	Comments
			Two of the initially planned activities have been descoped from the program as their implementation have been postponed for a later stage. The Transformational programme IT-2021 is expected to be closed in January 2021.
4. Ensure the IT security and the continuous improvement of the IT services	4.1 IT continuous quality improvement plan defined for 2020 and actions implemented	Implemented	The kick-off meeting of the project executive committee took place in February. The scope of the project and the main working packages were defined, PMP was baselined. The implemented improvement activities include DTS dashboard revision, assessment and review of documentation and its management, main DTS process revision and adjustment to ECDC instructional standard). Additionally, to the planned improvements above, several incremental improvements were implemented. Project resource assigned to PHE activities and other unit priorities required rescheduling of the activities with slight impact on overall project completion date. The work on incremental improvements will continue through continual service improvement cycle instead of project mode.
	4.2 IT and information Security function strengthened	Implemented	Risks related to the PHE were reviewed and specific actions were identified/handled. Risk assessments of critical assets took place. The implementation of the IT security risk project was completed. Access control was improved overall (clean-up, monitoring of access and multi-factor authentication enabled). Monitoring of the IT security assess was ensured/enabled and supported by CERT-EU (both for internal IT security assets and for MS 365 cloud services). IT security incidents were identified, contained, handled and post-review performed. Other IT security activities done (such as firewall improvements, penetration tests, security awareness and more business impact/risk assessments performed).
<b>Additional COVID-19 work programme</b>			
SPD Objective	Expected outputs 2020	Status	Comments
Support the implementation of fit-for-purpose surveillance systems in countries and at EU-level	A. Communicate and implement surveillance strategy (primary and secondary care, mortality, long-term care facilities, impact)	Implemented	
	B. Hold regular meetings with COVID-19 surveillance network (epi and lab)	Implemented	
	C. Provide advice to Member States and the European Commission on defining the main criteria for the use of apps for contact tracing, symptom reporting, and other online participatory surveillance systems, as well as the integration of app data into primary care surveillance.	On schedule	ongoing support to Commission on this.
	D. Provide advice, training, and support capacity building for scaling up contact tracing and testing	On schedule	ongoing as per requests
	E. Coordinate actions with WHO Regional Office for Europe	Implemented	

SPD Objective	Expected outputs 2020	Status	Comments
	F. Perform external quality assessment (EQA) of the public health laboratories	Implemented	
	G. Develop and pilot sero-epidemiology study protocols in selected Member States (i.e. Member States not included in ongoing funded sero-epidemiology projects) and provide advice and assistance as needed.	Implemented	
	H. Plan for inclusion of COVID-19 in the list of notifiable diseases	Not started	ECDC is ready to proceed after indication from the European Commission.
<i>Inform public health decision-making in Member States</i>	A. Production of rapid risk assessments when needed	Implemented	29 RRAs produced in 2020.
	B. Conduct studies and analyses to inform and evaluate the impact of public health measures	Implemented	
	C. Timely dissemination of relevant surveillance outputs i. Weekly integrated report (indicator-based, epidemic intelligence (EI), mortality, modelling, virology, genetics) ii. Daily EI report (enhanced with trend data and assessment) iii. Maintain and improve real-time data sharing through dashboards iv. Publish surveillance manuscripts and reports as needed	Implemented	
	D. Production of relevant guidance i. Infection prevention and control in different settings ii. Testing strategies iii. Contact tracing	Implemented	
	E. Provision of short-term and longer term nowcasts and forecasts as needed and as possible, in collaboration with modellers in Member States i. Forecasted disease trends ii. Nowcasted and forecasted impact on healthcare sector iii. Tools for Member State-specific data	Implemented	
	F. Identification of optimal testing and intervention strategies by pandemic phase i. Maintain the response measures database ii. Monitor testing strategies iii. Perform impact analyses, combining information on measures with surveillance and sero-epidemiology data, accounting for testing strategies	Implemented	
	G. Evaluation of optimal allocation of resources (staff, personal protective equipment (PPE), testing kits, etc.)	On schedule	Ongoing,
	H. Estimation of disease burden (direct and indirect), including economic impact	Postponed 2021	
	I. Preparation of containment strategies for the late stage	Postponed 2021	
	<i>Contribute to support Member State laboratories and expanded testing</i>	A. Assist the European Commission in collation, analysing and sharing of data on validity and performance of diagnostic and serologic tests, in collaboration with Member States reference laboratories and relevant international partners	Implemented
B. Assist the European Commission assessment of laboratory testing capacity and needs of Member States and contribute to EC guidance for expanding testing capacity and harmonising testing methodologies		Implemented	
C. Perform external quality assessment (EQA) of the public health laboratories providing data for surveillance in coordination with EQA performed by the EC network of reference laboratories		Implemented	

SPD Objective	Expected outputs 2020	Status	Comments
	D. Provide whole genome sequencing services to Member States with lack of sequencing capacity	Implemented	
<i>Strengthen Member State preparedness</i>	A. Map evidence and rationale behind public health authorities' decision to implement measures during containment and mitigation phases	On schedule	ongoing
	B. Establish operational indicators for Preparedness & Response to COVID-19 – will countries be operationally prepared for the next wave/pandemic?	On schedule	ongoing
	C. Support Member States in the post-event phase in the form of In-Action reviews, After Action Reviews and competency-based training	On schedule	still planned
	D. Assess health services surge capacity: intensive care unit (ICU) beds, equipment, Human Resources, consumables (pharma, oxygen, testing, etc.)	Implemented	
<i>Promote generation of key evidence for COVID-19 prevention and control (other than analysis of surveillance data)</i>	A. Risk factors for transmission among health care workers (HCWs)  i. Coordinate cohort study with nested case-control in hospital	On schedule	The study should start in 2021 as soon as the participating hospitals get an authorisation from their respective local ethical committees (we aim at March) and will run for 6 months. Data analysis will be in the autumn of 2021.
	B. Seroepidemiology study among health care workers (secondary care)	On schedule	Part of contract that will last until 2021. Studies have started.
	C. Disease prevalence  i. Coordinate repeated prevalence studies on representative samples of the population (RT-PCR testing)	Not started	Project downsized due to competing COVID priorities, support to countries through ad hoc webinars ongoing
	D. Level of population immunity  i. Support repeated cross-sectional age-stratified sero-epidemiology studies in EU/EEA countries	Implemented	
	E. Establish efficient and coordinated liaison with H2020, CHAFEA, and IMI projects, provide ECDC inputs, and obtain early access to project results that are relevant for public-health decision making.	Implemented	
	F. Establish coordinated EU-level mechanism for preparation of mass vaccination campaigns (including monitoring of coverage, safety and effectiveness) in 2021-22.	Implemented	Implemented - through the NITAG network
<i>Rapidly identify relevant scientific advances and translate them into public health developments (guidance, RRA, training)</i>	A. Priority targets for literature screening and reviews:  i. Immunity ii. Pathogenesis iii. Vaccines iv. Treatments v. Transmission dynamics by age group and setting, including among closed communities and other risk groups vi. Proportion and type of underlying conditions and other risk factors by severity	Implemented	
<i>Ensure the scientific quality and coherence of COVID-19 content in the ECDC website</i>	A. Technical liaison with communications on COVID-19 information on the ECDC website	Implemented	
	B. Update Lines to Take (LTTs), Q&A, factsheets	Implemented	
	C. Answer ad hoc questions on ECDC website content	Implemented	
	D. Support to the communications team in the implementing the COVID-19 communications strategy	Implemented	
	E. Translate selected materials (reports, infographics) into all EU/EEA languages	Implemented	
<i>Provide strategic advice to PHE Management Team and PHE managers</i>	A. Provide weekly strategic reports to PHE Management Team	Implemented	
	B. Foresee implications for ECDC of European Commission and Member States	Implemented	

SPD Objective	Expected outputs 2020	Status	Comments
	strategies and decisions over public health measures C. Define and keep updated the overall ECDC response objectives and make sure these are reflected in outputs such as the RRAs	Implemented	

## Annex 2. Statistics on financial management

Budget outturn	2018	2019	2020
Revenue actually received (+)	58 069 000	60 316 000	70 708 000
Payments made (-)	47 369 000	48 441 000	47 139 000
Carry-over of appropriations (-)	10 304 000	11 671 000	22 533 000
Cancellation of appropriations carried over (+)	792 000	880 000	1 155 000
Adjustment for carry-over of assigned revenue appropriations from previous year (+)	498 000	259 000	1 118 000
Exchange rate differences (+/-)	+193 000	+126 000	-238 000
Adjustment for negative balance from previous year (-)			
<b>Total</b>	<b>1 879 000</b>	<b>1 469 000</b>	<b>3 071 000</b>

### Descriptive information and justification on:

#### Budget outturn

First estimate of the 2020 surplus to be reimbursed to the EU budget (as assigned revenue): EUR 3 071 478.28

The Centre cashed its budget of EUR 62 490 000 in 2020.

The expenditure of 2020, including the carry-forward to 2021, equals to EUR 69 672 702.91.

The amount of cancelled unused payment appropriations carried forward from previous year of EUR 1 155 058.40, the adjustment for carry-over from the previous year of appropriations available at 31.12 arising from assigned revenue of EUR 1 118 597.19 and the exchange rate loss for the year 2020 of EUR -238 085.36 have resulted in a positive budget outturn 2020.

In 2020, ECDC reimbursed the budgetary positive balance from 2019 of EUR 1 469 305.54 to the EU.

As a result of the above, EUR 3 071 478.28 will be reimbursed during 2021 to the EU budget (as assigned revenue) related to the Centre's 2020 budget.

#### Cancellation of commitment appropriations

The total implementation of commitment appropriations for ECDC in 2020 reached 96.77%, with a total of EUR 2 016 923.65 cancelled, compared to EUR 455 125.46 cancelled in 2019. As a result, the reductions of the EU contribution of 2% for the implementation of commitment appropriations and 2% for the cancellation of payment appropriations are not applicable for ECDC in 2022. The commitment of appropriations for the operational expenditure on Title 3 reached 96.57% in 2020.

#### Cancellation of payment appropriations for the year and payment appropriations carried over

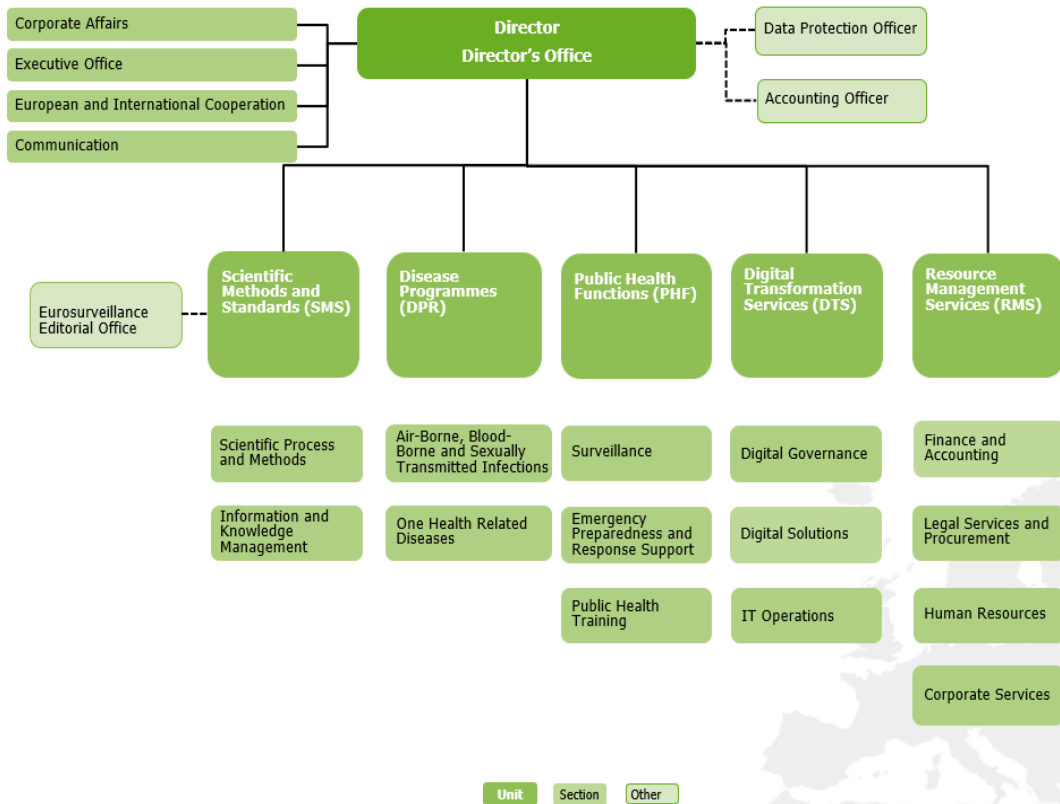
The Centre has carried forward EUR 10 592 099.19 from 2019 to 2020, of which EUR 9 437 040.79 was paid (fund source C8).

This corresponds to 89.1% of the amount carried forward.

Report on budget and financial management 2020 of the European Centre for Disease Prevention and Control.

For details, see: <https://ecdc.europa.eu/en/about-usour-key-documents/financial-documents>

# Annex 3. Organisational chart



## Annex 4. Establishment plan and additional information on Human Resources management

### ECDC establishment table 2020

Category and grade	Establishment plan in voted EU budget 2020	
	Officials	TA
AD 16		
AD 15		1
AD 14		2
AD 13		3
AD 12		7
AD 11		8
AD 10		23
AD 9		24
AD 8		22
AD 7		26
AD 6		10
AD 5		
<b>Total AD</b>		<b>126</b>
AST 11		
AST 10		1
AST 9		2
AST 8		3
AST 7		11
AST 6		10
AST 5		15
AST 4		5
AST 3		4
AST 2		
AST 1		
<b>Total AST</b>		<b>51</b>
AST/SC6		
AST/SC5		
AST/SC4		
AST/SC3		3
AST/SC2		
AST/SC1		
<b>Total AST/SC</b>		<b>3</b>
<b>Total</b>		<b>180</b>

### Recruitment grade/function group for each type of post - indicative table

Key functions (examples – terminology should be adjusted to each agency's job titles)	Type of contract (official, TA or CA)	Function group, grade of recruitment*	Indication whether the function is dedicated to administrative support or operations [subject to definitions used in screening methodology]
Head of Unit (level 2)	TA	AD 11/ AD 12	Depending on function: operational or administrative
Deputy Head of Unit (level 3)	TA	AD 10	Depending on function: operational or administrative
Head of Section (level 3)	TA	AD 8	Depending on function: operational or administrative/ neutral
Principal Expert	TA	AD 8	operational
Expert	TA	AD 5	operational
Scientific Officer	CA	FG IV	operational
Administration (e.g. HR, Procurement/ Finance)/ IT Officers	TA	AST 4	Depending on function: operational or administrative/ neutral
Officers in support functions (e.g. Communication, IT, Legal)	CA	FG IV	Depending on function: operational or administrative/ neutral
Assistants/ Specialists in support functions (e.g. HR, Finance, Procurement, IT)	CA	FG III	Depending on function: operational or administrative/ neutral
Administrative Assistants	TA	AST/SC 1	Depending on function: operational or administrative
Office Assistants	CA	FG II	Depending on function: operational or administrative



## Job screening/benchmarking against previous year results<sup>i</sup>

Job Type (sub) category	Year N-1 (%)	Year N (%)
<b>Administrative support and Coordination</b>	<b>15.0</b>	<b>16.2</b>
<i>Administrative Support</i>	12.9	14.5
<i>Coordination</i>	2.1	1.6
<b>Operational</b>	<b>77.2</b>	<b>77.8</b>
<i>Top level Operational Coordination</i>	3.6	2.8
<i>Programme management and Implementation</i>	63.4	65.8
<i>Evaluation &amp; Impact assessment</i>	0.0	0.0
<i>General operational</i>	10.2	9.3
<b>Neutral</b>	<b>7.8</b>	<b>6.0</b>
<i>Finance/ Control</i>	7.8	6.0
<i>Linguistics</i>	0.0	0.0

## Implementing rules adopted in 2020

### Management Board Decisions on Implementing Rules

Decision on the non-application of the Commission Decision on the maximum duration for the recourse to non-permanent staff in the Commission services

## Benchmarking against last year's results

Job type (sub) category	Year N-1 (%)	Year N (%)
<b>Administrative support and coordination</b>	<b>15.8</b>	<b>15.0</b>
<i>Administrative support</i>	14.0	12.9
<i>Coordination</i>	1.8	2.1
<b>Operational</b>	<b>77.2</b>	<b>77.2</b>
<i>Top-level operational coordination</i>	3.0	3.6
<i>Programme management and implementation</i>	64.0	63.4
<i>Evaluation and impact assessment</i>	0.0	0.0
<i>General operational</i>	10.2	10.2
<b>Neutral</b>	<b>7.0</b>	<b>7.8</b>
<i>Finance/control</i>	7.0	7.8
<i>Linguistics</i>	0.0	0.0

<sup>i</sup> Table as per Methodology for Agencies job screening (2014)

## Annex 5. Human and financial resources by activity

The activity-based costing (ABC) provides an overview of human and financial resources consumed by activity in 2020. It reflects the structure of the presentation of the Annual Report of the Director. ECDC staff members record their working time per activity in the Human Resources system Allegro, reflected in the first column (Total FTE). The column 'Administrative staff' reflects the administrative support for operations, considered as operational work following the benchmarking exercise (see also *Annex IV*).

Row Labels	Total FTE	Admin Staff	TITLE 1	TITLE 2	TITLE 3	TOTAL BUDGET
<b>1. COVID-19 - response</b>	<b>79.5</b>	<b>18.6</b>	<b>8 887 999</b>	<b>536 882</b>	<b>3 796 747</b>	<b>13 221 628</b>
1.0 COVID-19 response	79.5	18.6	8 887 999	536 882	3 796 747	13 221 628
<b>2. Surveillance and epidemic intelligence</b>	<b>14.4</b>	<b>3.5</b>	<b>1 416 103</b>	<b>96 980</b>	<b>1 372 410</b>	<b>2 885 493</b>
2.1 Surveillance	9.6	2.4	985 568	64 544	1 286 593	2 336 705
2.2 Epidemic intelligence	4.8	1.2	430 535	32 436	85 817	548 787
<b>3. Scientific support (including microbiology)</b>	<b>8.4</b>	<b>2.0</b>	<b>954 037</b>	<b>56 523</b>	<b>684 049</b>	<b>1 694 608</b>
3.1 Scientific Advice	8.0	1.9	888 041	53 857	673 952	1 615 850
3.2 Microbiology	0.4	0.1	65 996	2 666	10 096	78 758
<b>4. Preparedness and response</b>	<b>7.3</b>	<b>1.8</b>	<b>896 368</b>	<b>49 458</b>	<b>388 911</b>	<b>1 334 736</b>
4.1 EU and country preparedness support	4.5	1.1	575 906	30 284	282 215	888 404
4.2 Response and emergency operations	2.8	0.7	320 462	19 174	106 696	446 332
<b>5. Training and capacity building</b>	<b>24.1</b>	<b>6.0</b>	<b>2 604 002</b>	<b>162 774</b>	<b>2 578 220</b>	<b>5 344 996</b>
5.1 Public health training	16.4	4.1	1 829 031	110 693	2 496 170	4 435 895
5.2 International Relations	6.3	1.6	572 933	42 766		615 699
5.3 Country support	1.4	0.3	202 038	9 315	82 050	293 402
<b>6. Communication</b>	<b>21.9</b>	<b>5.0</b>	<b>1 986 780</b>	<b>147 844</b>	<b>464 175</b>	<b>2 598 799</b>
6.1 Health communication	14.4	3.2	1 210 072	97 478	447 837	1 755 387
6.2 Eurosurveillance	7.5	1.8	776 708	50 366	16 338	843 412
<b>7. Disease programmes</b>	<b>36.3</b>	<b>9.0</b>	<b>4 111 662</b>	<b>244 997</b>	<b>4 999 692</b>	<b>9 356 351</b>
7.0 Disease work: Management, coordination and support	9.9	2.4	1 042 291	66 709		1 109 001
7.1 ARHAI - Antimicrobial resistance and healthcare-associated infections	7.9	2.0	994 513	53 503	633 884	1 681 900
7.2 EVD - Emerging and vector borne diseases	3.2	0.8	365 101	21 627	302 730	689 458
7.3 FWD - Food- and Waterborne Diseases and Zoonoses	5.0	1.2	646 018	33 672	417 157	1 096 848
7.4 HSH - HIV, Sexually Transmitted Infections and viral Hepatitis	2.6	0.6	240 481	17 281	394 419	652 182
7.5 IRV - Influenza and other Respiratory Viruses	0.9	0.2	95 894	6 305	1 150 975	1 253 174
7.6 TB - Tuberculosis	2.1	0.5	259 676	14 069	251 091	524 835
7.7 VPD - Vaccine Preventable Diseases	4.7	1.2	467 688	31 829	1 849 435	2 348 953
<b>8. Management</b>	<b>29.4</b>	<b>0.0</b>	<b>2 961 624</b>	<b>6 606 322</b>	<b>4 968 607</b>	<b>14 536 553</b>
8.1 General management	2.6	0.0	335 690	1 775 187		2 110 877
8.2 Collaboration and cooperation	-	0.0			15 000	15 000
8.3 Resource management	20.9	0.0	2 050 646	3 604 602	403 217	6 058 465
Communication	0.1	0.0	8 547	490		9 037
Corporate Services	4.4	0.0	391 435	29 783		421 218
Finance and accounting	-	0.0		1 620 660		1 620 660
Human Resources	10.5	0.0	1 022 720	290 623		1 313 343
Management and Support RMS	2.4	0.0	292 787	16 067		308 854
<b>10. Generic actions</b>	<b>22.9</b>	<b>5.4</b>	<b>2 521 725</b>	<b>154 982</b>		<b>2 676 707</b>
10.0 Generic actions not related to core work	22.9	5.4	2 521 725	154 982		2 676 707
<b>11. Benchmarking</b>	<b>23.5</b>	<b>0.0</b>	<b>2 085 298</b>	<b>158 753</b>		<b>2 244 051</b>
11.0 Neutral category as per Benchmarking Methodology	23.5	0.0	2 085 298	158 753		2 244 051
Corporate Services	2.4	0.0	225 468	16 048		241 516
Finance and accounting	15.3	0.0	1 308 123	103 311		1 411 433
Human Resources	2.0	0.0	191 972	13 407		205 378
Legal Services and Procurement	3.3	0.0	320 015	22 426		342 441
Management and Support RMS	0.5	0.0	39 721	3 561		43 283
<b>Grand Total</b>	<b>267.8</b>	<b>51.3</b>	<b>28 439 183</b>	<b>8 216 162</b>	<b>19 252 811</b>	<b>55 908 156</b>
<b>Time not worked or not reported</b>	<b>12.2</b>		<b>4 603 476</b>	<b>82 678</b>		<b>4 685 504</b>
<b>Total</b>	<b>280.0</b>		<b>33 042 660</b>	<b>8 298 840</b>	<b>19 252 811</b>	<b>60 593 660</b>

\*

\*This line reflects: time underreported by staff, sick leave, medical part-time, part-time work, parental leave.

## Annex 6. Contribution, grant and service level agreements - Financial Framework Partnership Agreements

	General Information					Financial and HR impacts		
	Actual or Expected date of signature	Total amount	Duration	Counterpart	Short Description		N-1	N
<b>Grant Agreements</b>								
1. ERLTB-Net	Framework Partnership Agreement signed in 2018	200 000 EUR/year	4 years	Consortium led by Public Health England	Implementation of lab coordination activities, including lab network coordination, EQA, training, strain collection, typing, scientific advice & technical guidance on lab issues as well as methods harmonisation and network meeting.	Amount	200 000 EUR	200,000 EUR
						Nr of FTEs	0.25	0.25
						Nr of SNEs		
2. Scientific coordination of ECDC Fellowship Programme	Framework Partnership Agreements signed in 2020	575 000 EUR/year	4 Years	12 specific agreements with different public health institutes	Scientific Coordination of ECDC Fellowship Programme (Epidemiology (EPIET) and Public Health Microbiology (EUPHEM) paths). To ensure the availability of highly qualified scientific coordinators for the Fellowship programme.	Amount	575 000 EUR	575,000 EUR
						Nr of FTEs	1.90	1.90
						Nr of SNEs		
3. ECDC Fellowship Programme: hosting of fellows	Framework Partnership Agreements signed in 2018, 2019 & 2020	1 950 000 EUR/year	4 Years	39 specific agreements (for hosting cohorts 2019, 2020 and 2021) with different public health institutes	ECDC Fellowship Programme (Epidemiology (EPIET) and Public Health Microbiology (EUPHEM) paths) hosting of fellows at Training Sites.	Amount	1 950 000 EUR	1,950,000 EUR
						Nr of FTEs		
						Nr of SNEs		
Total grant agreements						Amount		
						Nr of FTEs		
						Nr of SNEs		
<b>Contribution Agreements</b>								
None						Amount		
						Nr of FTEs		
						Nr of SNEs		
Total contribution agreements						Amount		
						Nr of FTEs		
						Nr of SNEs		
<b>Service-Level Agreements</b>								
None						Amount		
						Nr of FTEs		
						Nr of SNEs		
Total service-level agreements						Amount		
						Nr of FTEs		
						Nr of SNEs		
<b>Total</b>						Amount		
						Nr of FTEs		
						Nr of SNEs		

## Annex 7. Environment management

### ECDC measures to ensure cost-effective and environment-friendly working place

ECDC premises have been environmentally certified as a 'Green building' since 2018. In December 2020, the ECDC building received the environmental certification 'BREEAM Very Good'. Building Research Establishment Environmental Assessment Method (BREEAM) is the world's leading sustainability assessment method for master planning projects, infrastructure, and buildings.

Regarding EMAS registration, in June 2020 ECDC performed an environmental assessment as an introduction to the implementation of an Environmental Management System based on the Eco-Management Audit Scheme (EMAS) and was subsequently working on achieving EMAS certification. The environmental assessment established that travels related to missions, meetings, recruitments, and trainings represented the major source of CO<sup>2</sup> emissions for ECDC, with a critical environmental significance factor of 76 (out of 100). In 2019, CO<sup>2</sup> emissions related to staff missions was reduced by 0,75% compared to 2017, and 18% compared to 2018. Due to the COVID-19 pandemic, and the reduction of staff missions and meetings, ECDC expects that CO<sup>2</sup> emissions related to travels will have been reduced to a non-relevant environmental significance factor in 2020.

### ECDC measures to reduce the environmental impact of its operations

ECDC electricity is 100% provided by hydro powered energy. The ECDC premises are equipped with energy-efficient glass windows optimising daylight admission and reducing solar heat. Light sources are mostly of LED with occupancy sensors and daylight control systems.

ECDC continues to improve its new recycling system introduced in 2019, with separation of waste into paper, plastic, glass, organic, metal, e-waste, toners, light and bulbs, batteries, corrugated cardboard, and boxes. In addition, ECDC requests from some of its suppliers to provide environmentally friendly documentation and purchases eco-labelled products (such as stationery and cleaning detergents).

To reduce environmental impact of the transport, ECDC encourages its staff to use sustainable ways of commuting by providing facilities for bicycles and offering very good connections by public transport. Moreover, videoconferencing is encouraged to limit the environmental impact of missions.

### ECDC plans environmental objectives

As an agency of the European Union, ECDC recognises its responsibility towards the environment and the importance of implementation of measures to control and lower the environmental impact of its operations. In the year 2021, while having not set CO<sub>2</sub> reduction targets, ECDC aims at having an Environmental Management System introduced and being registered in EMAS or ISO14001 certified. Furthermore, the agency plans to pursue with its efforts towards a more environmentally friendly profile, focusing on selected areas of further improvement.

## Annex 8. Final annual accounts 2020 of the European Centre for Disease Prevention and Control

See final annual accounts 2020 and report on budget and financial management 2020 of the European Centre for Disease Prevention and Control (MB document MB52/03).

For details, see: <https://ecdc.europa.eu/en/about-usour-key-documents/financial-documents>

## Annex 9. ECDC MB/AF/Coordinating Competent Bodies

### Members and Alternates of the ECDC Management Board

Austria	Dr Bernhard Benka	Member
	Nomination pending	Alternate
Belgium	Mr Lieven De Raedt	Member
	Dr Carole Schirvel <sup>i</sup>	Alternate
Bulgaria	Dr Angel Kunchev	Member
	Ms Nataliya Spiridonova <sup>ii</sup>	Alternate
Croatia	Dr Bernard Kaić	Member
	Assistant Professor Krunoslav Capak	Alternate
Cyprus	Dr Irene Cotter	Member
	Ms Maroussa Konnari Jeronymides	Alternate
Czechia	Ms Jarmila Rázová <sup>iii</sup>	Member
	Dr Jozef Dlhý	Alternate
Denmark	Ms Bolette Søborg <sup>iv</sup>	Member
	Ms Stine Ulendorf Jacobsen <sup>v</sup>	Alternate
Estonia	Ms Heli Laarmann	Member
	Ms Mari-Anne Härma <sup>vi</sup>	Alternate
Finland	Dr Anni-Riitta Virolainen-Julkunen	Member
	Dr Taneli Puumalainen	Alternate
France	Professor Geneviève Chêne	Member
	Ms Anne-Catherine Viso	Alternate
Germany	Dr Hans-Ulrich Holtherm <sup>vii</sup>	Member
	Dr Gesa Lücking	Alternate
Greece	Mr Panagiotis Arkoumanas <sup>viii</sup>	Member
	Ms Aggeliki Dreliozix <sup>ix</sup>	Alternate
Hungary	Ms Ágnes Dánielisz	Member
	Ms Krisztina Biró	Alternate
Ireland	Dr Colette Bonner <sup>x</sup>	Member
	Mr Daniel Shine	Alternate
Italy	Dr Francesco Maraglino <sup>xi</sup>	Member
	Dr Sandro Bonfigli <sup>xii</sup>	Alternate
Latvia	Ms Jana Feldmane	Member
	Professor Dzintars Mozgjis	Alternate
Lithuania	Dr Audrius Ščeponavičius	Member
	Professor Saulius Čaplinskas <sup>xiii</sup>	Alternate

i Alternate from January to April 2020, nomination pending

ii Appointed Alternate in replacement of Dr Galin Kamenov as of September 2020

iii Appointed Member in replacement of Mgr Eva Gottvaldová as of September 2020

iv Appointed Member in replacement of Ms Marlene Øhrberg Krag as of September 2020

v Appointed Alternate in replacement of Ms Bolette Søborg as of September 2020

vi Appointed Alternate in replacement of Ms Merike Jürilo as of September 2020

vii Appointed Member in replacement of Ms Susanne Wald as of September 2020

viii Appointed Member in replacement of Mr Georgios Saroglou as of February 2020

ix Appointed Alternate as of February 2020

x Appointed Member in replacement of Dr Ronan Glynn as of January 2020

xi Appointed Member as of September 2020

xii Appointed Alternate as of September 2020

xiii Alternate from January to September 2020, nomination pending

Luxembourg	Dr Jean-Claude Schmit	Member
	Dr Thomas Dentzer <sup>i</sup>	Alternate
Malta	Dr Patricia Vella Bonanno	Member
	Dr Mariella Borg Buontempo	Alternate
Netherlands	Ms Ciska Scheidel	Member
	Ms Francine L'Ortye	Alternate
Poland	Mr Dariusz Poznański	Member
	Mr Michał Ilnicki	Alternate
Portugal	Mr Rui Portugal <sup>ii</sup>	Member
	Ms Cristina Abreu Santos <sup>iii</sup>	Alternate
Romania	Mr Andrei Baci <sup>iv</sup>	Member
	Mr Paul Daniel Iordache <sup>v</sup>	Alternate
Slovakia	Dr Ján Mikas	Member
	Mr Peter Zsapka <sup>vi</sup>	Alternate
Slovenia	Dr Mojca Gobec	Member
	Mr Mario Fafangel <sup>vii</sup>	Alternate
Spain	Dr Pilar Aparicio Azcárraga Dr Manuel Cuenca Estrella	Member Alternate
Sweden	Dr Johan Carlson Mr Andreas Johansson	Member Alternate
European Parliament	Ms Zofija Mazej Kukovič Ms Maria Eleni Koppa Mr Antonio Fernando Correia de Campos	Member Member Alternate
European Commission	Ms Sandra Gallina <sup>viii</sup> Mr John F Ryan Ms Isabel de la Mata Barranco Mr Wolfgang Philipp Ms Barbara Kerstiēns Dr Karim Berkouk	Member Member Alternate Alternate Member Alternate
Iceland (EEA/EFTA)	Ms Ásthildur Knútsdóttir <sup>ix</sup> Ms Áslaug Einarsdóttir <sup>x</sup>	Member Alternate
Liechtenstein (EEA/EFTA)	Dr Silvia Dehler <sup>xi</sup>	Member
Norway (EEA/EFTA)	Mr Øystein Riise <sup>xii</sup> Mr Eirik Rødseth Bakka <sup>xiii</sup>	Member Alternate

## Members and Alternates of the ECDC Advisory Forum

Austria	Professor Dr Petra Apfalter	Member
	Professor Dr Franz Allerberger	Alternate
Belgium	Professor Dr Herman Van Oyen	Member
	Dr Sophie Quoilin	Alternate
Bulgaria	Nomination pending	Member
	Dr Radosveta Filipova	Alternate
Croatia	Dr Sanja Kurečić Filipović	Member

<sup>i</sup> Appointed Alternate in replacement of Dr Pierre Weicherding as of September 2020

<sup>ii</sup> Appointed Member in replacement of Dr Maria da Graça Gregorio de Freitas as of September 2020

<sup>iii</sup> Appointed Alternate as of September 2020

<sup>iv</sup> Appointed Member in replacement of Dr Amalia Serban as of September 2020

<sup>v</sup> Appointed Alternate in replacement of Dr Adriana Pistol as of September 2020

<sup>vi</sup> Appointed Alternate in replacement of Ms Dagmar Némethová as of September 2020

<sup>vii</sup> Appointed Alternate in replacement of Ms Maja Sočan as of September 2020

<sup>viii</sup> Appointed Member in replacement of Mr Martin Seychell as of September 2020

<sup>ix</sup> Appointed Member as of September 2020

<sup>x</sup> Appointed Alternate as of September 2020

<sup>xi</sup> Appointed Member as of April 2020

<sup>xii</sup> Appointed Member in replacement Dr Karl-Olaf Wathne of as of April 2020

<sup>xiii</sup> Appointed Alternate as of April 2020

	Dr Aleksandar Šimunović	Alternate
Cyprus	Dr Linos Hadjihannas	Member
	Dr Ioanna Gregoriou	Alternate
Czechia	Dr Jan Kynčl	Member
	Dr Kateřina Fabiánová	Alternate
Denmark	Dr Kåre Mølbak	Member
	Dr Tyra Grove Krause	Alternate
Estonia	Nomination pending	Member
	Dr Natalia Kerbo	Alternate
Finland	Dr Mika Salminen	Member
	Dr Carita Savolainen-Kopra	Alternate
France	Dr Jean-Claude Desenclos	Member
	Dr Bruno Coignard	Alternate
Germany	Dr Osamah Hamouda	Member
	Dr Ole Wichmann	Alternate
Greece	Dr Sotirios Tsiodras	Member
	Nomination pending	Alternate
Hungary	Ms Zsuzsanna Molnár	Member
	Ms Ágnes Hajdu	Alternate
Ireland	Dr Lorraine Doherty <sup>i</sup>	Member Alternate
	Dr Derval Igoe	
Italy	Dr Silvia Declich	Member Alternate
	Dr Giuseppe Ippolito	
Latvia	Dr Juris Perevoščikovs	Member Alternate
	Nomination pending	
Lithuania	Dr Loreta Ašoklienė	Member Alternate
	Ms Nerija Kuprevičienė	
Luxembourg	Dr Isabel De La Fuente Garcia	Member Alternate
	Professor Friedrich Muehlschlegel	
Malta	Dr Charmaine Gauci	Member Alternate
	Dr Tanya Melillo Fenech	
Netherlands	Prof Dr Jaap van Dissel	Member Alternate
	Dr Susan van den Hof	
Poland	Dr Malgorzata Sadkowska-Todys	Member Alternate
	Dr Magdalena Rosińska	
Portugal	Mr Carlos Matias Dias	Member Alternate
	Dr Ana Maria Correia	
Romania	Dr Florin Popovici	Member Alternate
	Dr Cristian Gheorghe Iordache	
Slovakia	Dr Mária Avdičová	Member Alternate
	Professor Henrieta Hudečková	
Slovenia	Dr Irena Klavs	Member Alternate
	Dr Marta Grgič-Vitek	
Spain	Dr Fernando Simón	Member Alternate
	Dr Marina Pollan Santamaria	
Sweden	Dr Anders Tegnell	Member Alternate
	Dr Birgitta Lesko	
<b>Observers</b>		
Albania (candidate country) Iceland (EEA/EFTA)	Nomination pending Dr Thorolfur Gudnason	Member
Liechtenstein (EEA/EFTA)	Dr Guðrún Sigmundsdóttir <sup>i</sup> Dr Silvia Dehler <sup>ii</sup>	Alternate Member

<sup>i</sup> Appointed Member as of April 2020 in replacement of Dr Kevin Kelleher

<sup>ii</sup> Appointed Member as of April 2020



Montenegro (candidate country)	Dr Zoran Vratnica	Observer
Norway (EEA/EFTA) Serbia (candidate country)	Dr Frode Forland Dr Line Vold Nomination pending	Member Alternate
North Macedonia (candidate country)	Nomination pending	
Turkey (candidate country)	Professor Mustafa Gokhan Gozel	Observer
<b>Non-governmental organisations</b> European Institute of Women's Health	Mr Rebecca Moore	Member
European Public Health Association	Dr Aura Timen	Member
Steering Committee AIDS Action Europe	Mr Aigars Ceplitis	Alternate
European Association of Hospital Pharmacists	Ms Inese Svietina	Alternate

## ECDC Coordinating Competent Bodies

In 2010, ECDC decided to strengthen and simplify its way of working with the Member States. A new process was introduced in 2011 with the nomination of one national Coordinating Competent Body (CCB) in each EU/EEA Member State.

<b>Austria</b>	Federal Ministry of Health Radetzkystrasse 2 1031 Vienna +431711004637
<b>Belgium</b>	<b>Sciensano</b> Rue Juliette Wytsman 14 1050 Brussels <a href="https://www.sciensano.be/en">https://www.sciensano.be/en</a> +3226425111
<b>Bulgaria</b>	<b>National Center of Infectious and Parasitic Diseases</b> Yanko Sakazov Blvd. 26 1504 Sofia <a href="http://www.ncipd.org">http://www.ncipd.org</a> +35929442875
<b>Croatia</b>	<b>Croatian Institute of Public Health</b> Rockefellerova 7 10000 Zagreb <a href="http://www.hzjz.hr">http://www.hzjz.hr</a> +38514683010
<b>Cyprus</b>	<b>Ministry of Health</b> Directorate Medical and Public Health Services 1 Prodromou 1449 Nicosia <a href="http://www.moh.gov.cy">http://www.moh.gov.cy</a> +35722605650
<b>Czechia</b>	<b>National Institute of Public Health</b> Šrobárova 48 10042 Prague 10 <a href="http://www.szu.cz">http://www.szu.cz</a> +420267082295
<b>Denmark</b>	<b>Danish Health Authority</b> Axel Heides Gade 1 2300 Copenhagen <a href="http://sundhedsstyrelsen.dk">http://sundhedsstyrelsen.dk</a> +4572227400
<b>Estonia</b>	<b>Health Board</b> Tartu road 85 10115 Tallinn <a href="http://www.terviseamet.ee">http://www.terviseamet.ee</a> +3726943500
<b>Finland</b>	<b>National Institute for Health and Welfare</b> Mannerheimintie 166 00271 Helsinki <a href="http://www.thl.fi">http://www.thl.fi</a> +358295246000
<b>France</b>	<b>French Public Health Agency</b> 12 rue du Val d'Osne 94415 Saint-Maurice <a href="http://www.santepubliquefrance.fr">http://www.santepubliquefrance.fr</a> +33141796700
<b>Germany</b>	<b>Robert Koch Institute</b> Nordufer 20 13353 Berlin <a href="http://www.rki.de">http://www.rki.de</a> +4930187540

<b>Greece</b>	<b>National Public Health Organization</b> Agrafon Street 3-5 15123 Marousi <a href="https://eody.gov.gr/eody/">https://eody.gov.gr/eody/</a> +302105212000
<b>Hungary</b>	<b>National Public Health Center</b> Albert Flórián út 2-6 1097 Budapest <a href="http://www.kormany.hu/en/ministry-of-human-resources">http://www.kormany.hu/en/ministry-of-human-resources</a> +3614761279
<b>Iceland</b>	<b>Centre of Health Security and Communicable Disease Prevention</b> Austurströnd 5 170 Seltjarnarnes <a href="http://www.landlaeknir.is">http://www.landlaeknir.is</a> +3545101900
<b>Ireland</b>	<b>Health Protection Surveillance Centre</b> 25-27 Middle Gardiner Street Dublin <a href="http://www.hpsc.ie">http://www.hpsc.ie</a> +35318765300
<b>Italy</b>	<b>Ministry of Health</b> Via Giorgio Ribotta 5 00144 Rome <a href="http://www.salute.gov.it">http://www.salute.gov.it</a> +390659946115
<b>Latvia</b>	<b>Centre for Disease Prevention and Control</b> Duntes 22 1005 Riga <a href="http://spkc.gov.lv">http://spkc.gov.lv</a> +37167501590
<b>Liechtenstein</b>	<b>Principality of Liechtenstein</b> Äulestrasse 51 9490 Vaduz <a href="http://www.ag.llv.li">http://www.ag.llv.li</a> +4232367334
<b>Lithuania</b>	<b>Ministry of Health</b> Vilniaus 33 01506 Vilnius <a href="http://www.sam.lt">http://www.sam.lt</a> +37052661466
<b>Luxembourg</b>	<b>Health Directorate</b> Ministry of Health 20, Rue De Bitbourg 1273 Luxembourg <a href="http://www.ms.public.lu">http://www.ms.public.lu</a> +35224785550
<b>Malta</b>	<b>Superintendence of Public Health</b> Ministry for Energy and Health St Luke's Hospital, Pjazza San Luqa MRS9010 Pieta <a href="https://deputyprimeminister.gov.mt/en/sph/Pages/Superintendence-of-Public-Health.aspx">https://deputyprimeminister.gov.mt/en/sph/Pages/Superintendence-of-Public-Health.aspx</a> +35623266109
<b>Netherlands</b>	<b>National Institute for Public Health and the Environment</b> Antonie van Leeuwenhoeklaan 9 3720 BA Bilthoven <a href="http://www.rivm.nl">http://www.rivm.nl</a> +31302742767
<b>Norway</b>	<b>National Institute of Public Health</b> PO BOX 4404 Nydalen 0403 Oslo <a href="http://www.fhi.no">http://www.fhi.no</a> +4721077000
<b>Poland</b>	<b>National Institute of Public Health – National Institute of Hygiene</b> 24 Chocimska Street 00791 Warsaw <a href="http://www.pzh.gov.pl">http://www.pzh.gov.pl</a> +48228497612
<b>Portugal</b>	<b>Directorate-General of Health</b> Ministry of Health Alameda D. Afonso Henriques 45 1049-005 Lisbon <a href="http://www.dgs.pt">www.dgs.pt</a> +351218430500
<b>Romania</b>	<b>National Institute of Public Health</b> Dr Leonte Anastasievici 1-3, Sector 5 050463 Bucharest <a href="http://www.insp.gov.ro/">http://www.insp.gov.ro/</a> +40213183612

<b>Slovakia</b>	<b>Public Health Authority of the Slovak Republic</b> Trnavská cesta 52 82645 Bratislava <a href="http://www.uvzsr.sk">http://www.uvzsr.sk</a> +421244372906
<b>Slovenia</b>	<b>National Institute of Public Health</b> Trubarjeva cesta 2 1000 Ljubljana <a href="http://www.nijz.si">http://www.nijz.si</a> +38612441400
<b>Spain</b>	<b>Ministry of Health, Social Services and Equality</b> Paseo del Prado 18–20, 7 planta 28071 Madrid <a href="http://www.msssi.es">http://www.msssi.es</a> +34915962062
<b>Sweden</b>	<b>Public Health Agency of Sweden</b> Nobels väg 18 17182 Solna <a href="http://folkhalsomyndigheten.se/">http://folkhalsomyndigheten.se/</a> +46102052000
<b>United Kingdom</b>	<b>Public Health England</b> Colindale Avenue 61 NW95EQ London <a href="https://www.gov.uk/government/organisations/public-health-england">https://www.gov.uk/government/organisations/public-health-england</a> +442082004400

# Annex 10. ECDC outputs published in 2020

## Risk assessments

### January

[Threat assessment brief: Pneumonia cases possibly associated with a new coronavirus in Wuhan, China](#)

[Rapid Risk Assessment: Cluster of pneumonia cases caused by a novel coronavirus, Wuhan, China](#)

[Rapid risk assessment: Outbreak of acute respiratory syndrome associated with a novel coronavirus, Wuhan, China - first update](#)

[Rapid risk assessment: Outbreak of acute respiratory syndrome associated with a novel coronavirus, Wuhan, China - second update](#)

[Rapid risk assessment - Outbreak of acute respiratory syndrome associated with a novel coronavirus, Wuhan, China - third update](#)

### February

[Rapid risk assessment - Outbreak of acute respiratory syndrome associated with a novel coronavirus, Wuhan, China - fourth update](#)

[Threat assessment brief: Outbreak of novel coronavirus disease 2019 \(COVID-19\): Situation in Italy](#)

[Rapid risk assessment: Increase in OXA -244 -producing Escherichia coli in the European Union/European Economic Area and the UK since 2013](#)

### March

[Rapid risk assessment: Novel coronavirus disease 2019 \(COVID-19\) pandemic: increased transmission in the EU/EEA and the UK – fifth update](#)

[Rapid risk assessment: Novel coronavirus disease 2019 \(COVID-19\) pandemic: increased transmission in the EU/EEA and the UK – sixth update](#)

[Rapid risk assessment: Coronavirus disease 2019 \(COVID-19\) pandemic: increased transmission in the EU/EEA and the UK – seventh update](#)

### April

[Rapid risk assessment: Novel coronavirus disease 2019 \(COVID-19\) pandemic: increased transmission in the EU/EEA and the UK - eighth update](#)

[Rapid risk assessment: Novel coronavirus disease 2019 \(COVID-19\) pandemic: increased transmission in the EU/EEA and the UK - ninth update](#)

### May

[Rapid risk assessment: Paediatric inflammatory multisystem syndrome and SARS -CoV-2 infection in children](#)

### June

[Rapid risk assessment: Novel coronavirus disease 2019 \(COVID-19\) pandemic: increased transmission in the EU/EEA and the UK - tenth update](#)

### July

[Rapid risk assessment: Resurgence of reported cases of COVID 19 in the EU/EEA, the UK and EU candidate and potential candidate countries](#)

[Threat Assessment Brief: Eurasian avian-like A\(H1N1\) swine influenza viruses](#)

### August

[Rapid risk assessment: Novel coronavirus disease 2019 \(COVID-19\) pandemic: increased transmission in the EU/EEA and the UK - eleventh update: resurgence of cases](#)

### September

[Threat assessment brief: Reinfection with SARS-CoV-2: considerations for public health response](#)

[Rapid risk assessment: Increased transmission of COVID-19 in the EU/EEA and the UK – twelfth update](#)

## October

[Rapid outbreak assessment - Multi-country outbreak of \*Salmonella\* Typhimurium and \*S. Anatum\* infections linked to Brazil nuts](#)

[Rapid risk assessment: Increased transmission of COVID-19 in the EU/EEA and the UK – thirteenth update](#)

## November

[Rapid risk assessment: Detection of new SARS-CoV-2 variants related to mink](#)

[Rapid risk assessment: Increase in fatal cases of COVID-19 among long-term care facility residents in the EU/EEA and the UK](#)

## December

[Rapid risk assessment: Risk of COVID-19 transmission related to the end-of-year festive season](#)

[Rapid risk assessment: Risk related to spread of new SARS-CoV-2 variants of concern in the EU/EEA](#)

[Threat assessment brief: Rapid increase of a SARS-CoV-2 variant with multiple spike protein mutations observed in the United Kingdom](#)

## Technical reports

### January

[Risk assessment guidelines for infectious diseases transmitted on aircraft \(RAGIDA\)](#)

[Middle East Respiratory Syndrome Coronavirus \(MERS-CoV\)](#)

[Public health management of persons having had contact with novel coronavirus cases in the European Union](#)

### February

[Infection prevention and control for the care of patients with 2019-nCoV in healthcare settings](#)

[Personal protective equipment \(PPE\) needs in healthcare settings for the care of patients with suspected or confirmed novel coronavirus \(2019-nCoV\)](#)

[Guidelines for the use of non-pharmaceutical measures to delay and mitigate the impact of 2019-nCoV](#)

[Interim guidance for environmental cleaning in non-healthcare facilities exposed to SARS-CoV-2](#)

[Contact tracing: Public health management of persons, including healthcare workers, having had contact with COVID-19 cases in the European Union](#)

[Checklist for hospitals preparing for the reception and care of coronavirus 2019 \(COVID-19\) patients](#)

[Guidance for wearing and removing personal protective equipment in healthcare settings for the care of patients with suspected or confirmed COVID-19](#)

### March

[Resource estimation for contact tracing, quarantine and monitoring activities for COVID-19 cases in the EU/EEA](#)

[Systematic scoping review on social media monitoring methods and interventions relating to vaccine hesitancy](#)

[Considerations relating to social distancing measures in response to COVID-19](#)

[Considerations relating to social distancing measures in response to COVID-19 – second update](#)

[Novel coronavirus \(SARS-CoV-2\): Discharge criteria for confirmed COVID-19 cases](#)

[Infection prevention and control for COVID-19 in healthcare settings](#)

[Infection prevention and control for COVID-19 in healthcare settings - first update](#)

[Infection prevention and control and preparedness for COVID-19 in healthcare settings - second update](#)

[Guidance for health system contingency planning during widespread transmission of SARS-CoV-2 with high impact on healthcare services](#)

[Considerations related to the safe handling of bodies of deceased persons with suspected or confirmed COVID-19](#)

[Coronavirus disease - 2019 \(COVID-19\) and supply of substances of human origin in EU/EEA](#)

[Cloth masks and mask sterilisation as options in case of shortage of surgical masks and respirators](#)

[Disinfection of environments in healthcare and non-healthcare settings potentially contaminated with SARS-CoV-2](#)

[Infection prevention and control and preparedness for COVID-19 in healthcare settings - second update](#)

[Infection prevention and control in the household management of people with suspected or confirmed coronavirus disease \(COVID-19\)](#)

[Contact tracing: Public health management of persons, including healthcare workers, who have had contact with COVID-19 cases in the European Union - first update](#)

## April

[An overview of the rapid test situation for COVID-19 diagnosis in the EU/EEA](#)

[Guidance for discharge and ending isolation in the context of widespread community transmission of COVID-19 – first update](#)

[Using face masks in the community - Reducing COVID-19 transmission from potentially asymptomatic or pre-symptomatic people through the use of face masks](#)

[Strategies for the surveillance of COVID-19](#)

[Contact tracing: Public health management of persons, including healthcare workers, having had contact with COVID-19 cases in the European Union - second update](#)

[Considerations for infection prevention and control measures on public transport in the context of COVID-19](#)

[Coronavirus disease 2019 \(COVID-19\) and supply of substances of human origin in the EU/EEA - first update](#)

[Ninth external quality assessment scheme for \*Salmonella\* typing](#)

## May

[Contact tracing for COVID-19: current evidence, options for scale-up and an assessment of resources needed](#)

[Infection prevention and control and preparedness for COVID-19 in healthcare settings - third update](#)

[Surveillance of COVID-19 at long-term care facilities in the EU/EEA](#)

[COVID-19 Aviation Health Safety Protocol: Guidance for the management of airline passengers in relation to the COVID-19 pandemic / Joint report with EASA](#)

[Considerations for travel-related measures to reduce spread of COVID-19 in the EU/EEA](#)

[Projected baselines of COVID-19 in the EU/EEA and the UK for assessing the impact of de-escalation of measures](#)

[Methodology for estimating point prevalence of SARS-CoV-2 infection by pooled RT-PCR testing](#)

[Third external quality assessment on antimicrobial susceptibility testing and detection of ESBL-, acquired AmpC-, and carbapenemase-production of \*Salmonella\*, 2017](#)

[External quality assessment \(EQA\) of performance of laboratories participating in the European Antimicrobial Resistance Surveillance Network \(EARS-Net\), 2019](#)

## June

[Conducting in-action and after-action reviews of the public health response to COVID-19](#)

[Mobile applications in support of contact tracing for COVID-19 - A guidance for EU EEA Member States](#)

[Considerations relating to passenger locator data, entry and exit screening and health declarations in the context of COVID-19 in the EU/EEA and the UK](#)

[Guidance on infection prevention and control of COVID-19 in migrant and refugee reception and detention centres in the EU/EEA and the UK](#)

[Monitoring and evaluation framework for COVID-19 response activities in the EU/EEA and the UK / interim guidance](#)

[Heating, ventilation and air-conditioning systems in the context of COVID-19](#)

## July

[Use of gloves in healthcare and non-healthcare settings in the context of the COVID 19 pandemic](#)

[Guidance on the provision of support for medically and socially vulnerable populations in EU/EEA countries and the United Kingdom during the COVID-19 pandemic](#)

[Infection prevention and control and preparedness for COVID-19 in healthcare settings - fourth update](#)

[Infection prevention and control and surveillance for coronavirus disease \(COVID-19\) in prisons in EU/EEA countries and the UK](#)

[COVID-19 Aviation Health Safety Protocol: Guidance for the management of airline passengers in relation to the COVID-19 pandemic / Joint report with EASA](#)

[COVID-19 Rail Protocol: Recommendations for safe resumption of railway services in Europe / Joint report with the European Union Agency for Railways](#)

[COVID-19: EU guidance for cruise ship operations / Joint report with the European Maritime Safety Agency](#)

## August

[COVID-19 in children and the role of school settings in COVID-19 transmission](#)

[Objectives for COVID-19 testing in school settings](#)

[Objectives for COVID-19 testing in school settings – first update](#)

[COVID-19 clusters and outbreaks in occupational settings in the EU/EEA and the UK](#)

[Population-wide testing of SARS-CoV-2: country experiences and potential approaches in the EU/EEA and the United Kingdom](#)

## September

[Baseline projections of COVID-19 in the EU/EEA and the UK: update](#)

[COVID-19 testing strategies and objectives](#)

[Guidelines for the implementation of non-pharmaceutical interventions against COVID-19](#)

[ECDC capacity and Training needs assessment - 2018 report](#)

[EU Laboratory Capability Monitoring System \(EULabCap\), 2018](#)

## October

[Infection prevention and control and preparedness for COVID-19 in healthcare settings - fifth update](#)

[Guidance for discharge and ending of isolation of people with COVID-19 - second update](#)

[COVID-19 infection prevention and control measures for primary care, including general practitioner practices, dental clinics and pharmacy settings: first update](#)

[Key aspects regarding the introduction and prioritisation of COVID-19 vaccination in the EU/EEA and the UK](#)

[Fourth external quality assessment on species identification and antimicrobial susceptibility testing of \*Campylobacter\*, 2018](#)

[Systematic review of the efficacy, effectiveness and safety of newer and enhanced seasonal influenza vaccines](#)

[Operational considerations for influenza surveillance in the WHO European Region during COVID-19: interim Guidance / Joint report with WHO](#)

## November

[Heating, ventilation and air-conditioning systems in the context of COVID-19 - first update](#)

[Contact tracing: public health management of persons, including healthcare workers, who have had contact with COVID-19 cases in the European Union – third update](#)

[Options for the use of rapid antigen tests for COVID-19 in the EU/EEA and the UK](#)

[Updated projections of COVID-19 in the EU/EEA and the UK](#)

[Ninth external quality assessment scheme for typing of Shiga toxin-producing \*Escherichia coli\*](#)

[Prevention of Hepatitis B and C in the EU/EEA and the UK](#)

[Vector control practices and strategies against West Nile virus](#)

## December

[Overview of COVID-19 vaccination strategies and vaccine deployment plans in the EU/EEA and the UK](#)

[Coronavirus disease 2019 \(COVID-19\) and supply of substances of human origin in the EU/EEA - Second update](#)

[COVID-19 vaccination and prioritisation strategies in the EU/EEA](#)

[COVID-19 in children and the role of school settings in transmission - first update](#)

[Guidelines for COVID-19 testing and quarantine of air travellers - Addendum to the Aviation Health Safety Protocol / Joint report with EASA](#)

[External quality assessment \(EQA\) schemes to support European surveillance of Legionnaires' disease 2019-2020 - EU/EEA countries](#)

## Surveillance reports

### March

[Tuberculosis surveillance and monitoring in Europe 2020 –2018 data / Joint report with WHO Europe](#)

### May

[Gonococcal antimicrobial susceptibility surveillance in Europe, 2018](#)

### November

[HIV/AIDS surveillance in Europe 2020 \(2019 data\)](#)

## Scientific advice

[Guidance on HPV vaccination in EU countries: focus on boys, people living with HIV and 9-valent HPV vaccine introduction](#)

## Mission report

### February

[Tuberculosis in the Netherlands](#)

## Corporate publications

### January

[Single programming document 2020–2022](#)

### June

[Annual Report of the Director – 2019](#)

### December

[Achievements, challenges and major outputs 2019: Highlights from the Annual Report of the Director](#)

## Regular publications

[Influenza virus characterisation, summary Europe](#)

[Measles and rubella monitoring](#)

[Communicable disease threats report](#)

## Annual Epidemiological Report series on communicable diseases in Europe

**New chapters are published as they become available.**

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### January

[Salmonellosis - Annual Epidemiological Report for 2017](#)

[Listeriosis - Annual Epidemiological Report for 2017](#)

[Yersiniosis - Annual Epidemiological Report for 2017](#)

[Echinococcosis - Annual Epidemiological Report for 2017](#)

### February



[Tuberculosis - Annual Epidemiological Report for 2017](#)

## April

[Measles - Annual Epidemiological Report for 2019](#)

[Measles - Annual Epidemiological Report for 2018](#)

[Mumps - Annual Epidemiological Report for 2017](#)

[Lassa fever - Annual Epidemiological Report for 2018](#)

[Shiga toxin/verocytotoxin-producing Escherichia coli \(STEC/VTEC\) infection - Annual Epidemiological Report for 2018](#)

[Hantavirus infection - Annual Epidemiological Report for 2018](#)

[Malaria - Annual Epidemiological Report for 2018](#)

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[Congenital syphilis - Annual Epidemiological Report for 2018](#)

## May

[Yellow fever - Annual Epidemiological Report for 2018](#)

[Gonorrhoea - Annual Epidemiological Report for 2018](#)

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[Hepatitis C - Annual Epidemiological Report for 2018](#)

[Hepatitis B - Annual Epidemiological Report for 2018](#)

[Chlamydia infection - Annual Epidemiological Report for 2018](#)

## August

[Communicable disease threats to public health in the European Union - Annual Epidemiological Report for 2019](#)

[Seasonal influenza - Annual Epidemiological Report for 2019–2020](#)

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[Pertussis - Annual Epidemiological Report for 2018](#)

[Variant Creutzfeldt–Jakob disease - Annual Epidemiological Report for 2017](#)

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## October

[Typhoid and paratyphoid fevers - Annual Epidemiological Report for 2017](#)

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[Tuberculosis - Annual Epidemiological Report for 2018](#)

[Antimicrobial resistance in the EU/EEA \(EARS-Net\) - Annual Epidemiological Report for 2019](#)

## December

[Tetanus - Annual Epidemiological Report for 2018](#)

## Annex 11. Negotiated procedures without prior publication of a contract notice conducted in 2020

Reference	Title	Type of procedure: Art. 11.1. of the Financial Regulation	Amount	Contractor	Contract reference
NP/2020/SMS/12295	ESCAIDE 2020 Online Event	Point 11.1 (e)	150.000 EUR	TEAMWORK	Amendment nr 1 to FWC ECDC/017/005
NP/2020/DPR/12261	Open access publication: European surveillance of antimicrobial consumption: antibiotic consumption in the community, 1997-2017	Point 11.1 (b)	29 267.00 GBP	Oxford University Press	Purchase Order
NP/2020/DPR/12238	Standardisation of antimicrobial susceptibility testing methods and development of clinical breakpoints for surveillance of antimicrobial resistance in Europe	Point 11.1 (b)	600.000 EUR	ESCMID FORDERVEREIN E.V	ECDC/2020/005
NP/2020/DPR/12275	Establishing Severe Acute Respiratory Infections (SARI) surveillance and performing hospital-based COVID-19 transmission studies	Point 11.1 (c)	2,299,984 EUR	Epiconcept SAS	ECD.11236
NP/2020/DPR/12456	Developing an infrastructure and performing vaccine effectiveness studies for COVID-19 vaccines in the EU/EEA	Point 11.1 (c)	1,680,000 EUR	Epiconcept SAS	ECD.11486
NP/2020/DPR/23584	Laboratory support for seroepidemiology studies	Point 11.1 (c)	234,541 EUR	RIVM	ECD.11508
NP/2020/PHF/12280	Assessing the vulnerabilities and impact of COVID-19 in migrants and ethnic minorities in the EU/EEA and the UK	Point 11.1 (c)	EUR 50,000	Global health Consult Ltd	ECD. 11137

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