



TOGETHER FOR ONE HEALTH

2021
ANNUAL
REPORT

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***This year's annual report is available
to read... and to listen to!***

Jean-François Delfraissy, Roger Genet,
Boris Cyrulnik and Norbert Ibrah:
listen to these leading voices in conversation
with Santé publique France experts on current
and future health issues. Topics covered include
the health crisis, the concept of "One Health",
the First 1,000 Days, the fight against cancer
and democratic health. To listen to these
podcasts, simply scan the QR codes
in this report.

Happy listening!

The need for public health has never been so clear

The Chief Executive of Santé publique France, joined by the former and interim chairs of the Board of Directors, look back on the marking actions of 2022 from the sustained fight against the pandemic and to the collective mobilisation around major public health issues.

In 2021, Santé publique France celebrated its 5th birthday. Which significant developments for the agency stand out on this anniversary?

Marie-Caroline Bonnet-Galzy / The agency is now more than ever a leading voice in public health and is fully integrated into the national and international health ecosystem. The pandemic, with its dramatic scope, was a factor in fast-tracking the agency to become a key player in monitoring potential crises, raising alerts and crisis management.

Prof. Geneviève Chêne / Despite the agency having to grow in the specific and unprecedented context of the past two years, we were able to meet the demands of our remit, managing the public health of our country, while building an institution whose reach is undisputed today.

What have you learned from the health crisis over the last two years and what role has the agency played in collective mobilisation?

G. C. / We use tried-and-tested working methods. We have consolidated our organisation and been sufficiently agile to adapt our human, technical and financial resources. This agility is part of our nature. What I want to remember from the last two years is that we are a strong agency and despite the storm of COVID-19, we succeeded in steering a robust and powerful ship. Through our collective intelligence, we have

accomplished the feat of developing our working and organisational methods.

At the same time, we have never strayed from the ambition that we hold dear: sharing knowledge and presenting clear messages about health that result from this. This year, we continued to produce regular epidemiology updates, developed newsletters and launched our dashboard (InfoCovidFrance).

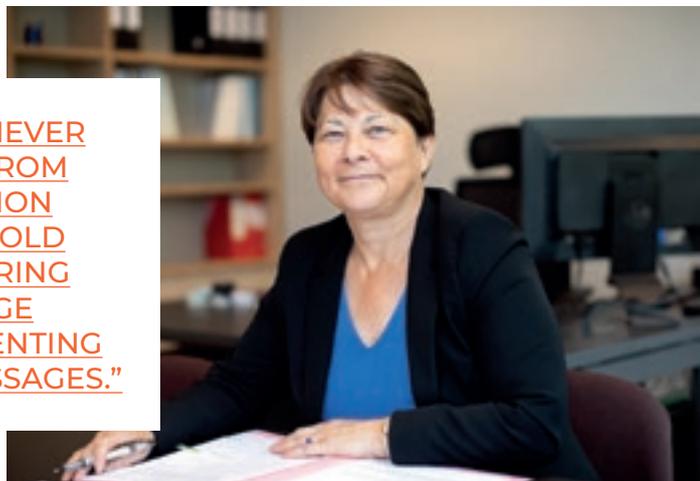
M.-C. B.-G. / The pandemic required a solid ability to adapt, particularly for monitoring test results, and for managing the stocks of masks and vaccines while tackling the logistics of keeping up with demand. The agency overcame these challenges. It also demonstrated its ability to cooperate with the regional health agencies, the French Health Authority (HAS, *Haute Autorité de Santé*), the National Agency for Medicine and Health Products Safety (ANSM, *Agence nationale de sécurité du médicament et des produits de santé*), the National Health Insurance (*Assurance maladie*) and research centres.

Did the priority for the agency's other areas of expertise change during this period?

M.-C. B.-G. / Clearly, priority was given to the pandemic. Nevertheless, the agency maintained its ability to rank the issues that require consistent action.



WE HAVE NEVER STRAYED FROM THE AMBITION THAT WE HOLD DEAR: SHARING KNOWLEDGE AND PRESENTING CLEAR MESSAGES.



Prof. Geneviève CHÊNE,
Chief Executive



THE IMPACT OF THE PANDEMIC REQUIRED A SOLID ABILITY TO ADAPT. THE AGENCY OVERCAME THIS CHALLENGE.



Marie-Caroline BONNET-GALZY,
Chair of the Board of Directors

This meant that its actions in major public health areas such as anti-smoking or antibiotic resistance were maintained. We also delivered another essential public health project: the First 1,000 Days, a campaign designed around the needs of the child and their parents. The agency identified the possible mental health impacts of the pandemic at a very early stage, and established actions in this area as well.

G. C. / I would firstly highlight the considerable progress made in the mental health programme, which, as you mentioned, was an all-consuming project in 2021, and also, the importance of solidifying our presence in regional communities. This is the cornerstone of our connection to the French people and their health concerns. We rely on an absolutely crucial network to deliver on our scientific remit. Teams in the regions carry out essential work every day consisting of surveillance, monitoring, and raising alerts concerning the health of the French

people and this helps to build the knowledge continuum in terms of responding through prevention and health promotion.

In 2021 you embarked on building a multi-year programme. What is the purpose of this? What are the major challenges?

G. C. / As illustrated by our work programme, our goal is to embrace today's priority public health issues and share a vision to promote healthy environments for tomorrow. Through our collective mobilisation in the service of shared values, we have been able to consolidate a coherent programme that sets out clear commitments (our six challenges) and uses our know-how and our ambition, whether in the field of the environment, or action on the determinants of health or the burden of disease.

Jean-Jacques Coiplet / If any doubts remained about how social and regional inequalities, the environment, climate change and our behaviours determine our health today and tomorrow, the health crisis has resolved them. Anticipation and prevention, health promotion, the development of digital health management, a population-based approach, focusing attention on the most vulnerable people, the ongoing response in the form of monitoring and vigilance, assessment and communication, and so on. These are all strategies deployed by the agency and included in this programme. It also sets out the value of promoting, sharing and communicating with the populations we serve and our partners to let them know what the health priorities are and find out how to get as many people as possible involved and contributing. Public health is everyone's business!

What does the future hold for the agency, as an independent body?

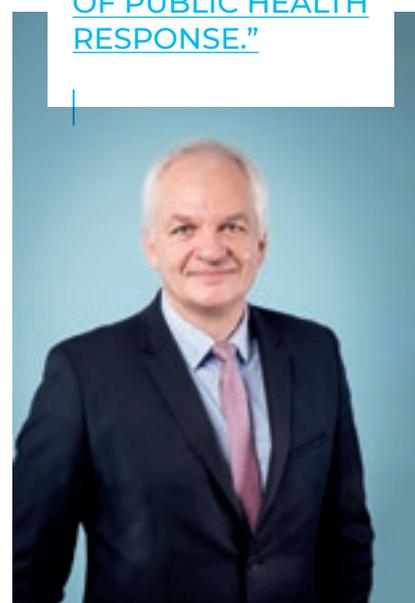
J.-J. C. / I support the notion of an independent scientific authority, which, through the richness and quality of its expertise, provides our

country with a high level of public health response. Independent does not mean alone: the agency's strength is and will be its ability to pursue partnerships in Europe, nationally and regionally. The Board of Directors will put their full weight behind «flying the flag» of health promotion in our daily life and in all public policies.

G. C. / We have undertaken a very structured approach to our agency's strategy: it focuses on strengthening the cross-cutting nature of our actions and the legibility of our publications. This fits with our goal of a scientifically-founded, socially effective and politically influential agency.



I SUPPORT THE NOTION OF AN INDEPENDENT SCIENTIFIC AUTHORITY, WHICH PROVIDES OUR COUNTRY WITH A HIGH LEVEL OF PUBLIC HEALTH RESPONSE.



Jean-Jacques COIPLLET,
Interim Chair of the Board of Directors

AN AGENCY WITH SCIENTIFIC EXPERTISE

Serving **the values** of public health

- / A sense of public interest. Strict, shared and transparent rules of ethics and professional conduct.
- / Social and regional equity. Regional and social inequalities in health are taken into account in order to promote health for all, in all walks of life.
- / Responsiveness, to raise alerts and intervene, and long-term involvement, for the lifelong endeavour of building good health.

Improving and protecting **population health**

- / Epidemiological observation and monitoring population health status using new data processing tools.
- / Monitoring health risks to populations.
- / Issuing health alerts.
- / Promoting health and reducing health risks.
- / Developing preventive healthcare and health education by implementing social marketing strategies.
- / Preparing for and responding to health threats, alerts and crises.

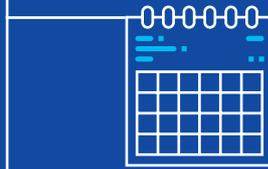


6 major challenges structure the agency's roadmap

The agency's strategic directions over the long term include public health challenges in the areas of protection against threats and improving health.

The operational roll-out of the strategic directions constituted the agency's work programme for 2021. It shows how the agency tackles the six major challenges with increased visibility and consistent actions.

This work is essential because it makes the crucial alignment between our resources and our objectives more visible.



5 YEARS

2016: Creation of the agency



7,448.9
MILLION EUROS

executed budget
2021 (commitment
authorisations)



4
REMOTE SUPPORT UNITS

in operation



754
PHYSICAL AGENTS

on payroll
31 December



44
INTERNS

gaining experience
in public health,
communications, social
marketing, biostatistics



71.75%

women

28.25%

men



BETWEEN
10 AND 15
TRAINEES

hosted per semester



6,486
HEALTHCARE RESERVISTS

engaged



16
REGIONAL UNITS

positioned to support
each regional health
agency

THE ECOSYSTEM OF SANTÉ PUBLIQUE FRANCE

Santé publique France has surrounded itself with a vast network of partners from institutions, science and associations – national agencies, research institutes, NGOs, etc. – with the purpose of developing the partnerships needed to deliver its work locally, nationally and internationally.

INSTITUTIONS

The agency is in constant contact with the authorities and partners from the national public health network to provide its expertise in support of decision-making and public health action.

- / President of the Republic, Prime Minister, Ministries
- / General councils, prefectures, local authorities
- / National and local elected representatives
- / Regional health agencies (ARS, *Agences régionales de santé*)
- / Public institutions
- / Health agencies
- / Scientific institutes and expert agencies
- / National Health Insurance Fund (CNAM, *Caisse nationale de l'assurance maladie*) (financing)
- / Partners
- / National public health network

EUROPEAN AND INTERNATIONAL

The agency contributes to international networks such as those of the World Health Organization (WHO). It sits on the bodies of the European Centre for Disease Prevention and Control (ECDC), oversees the International Association of Public Health Institutes (IANPHI) network and works closely with counterpart agencies. This enables the agency to improve its practices and promotes French expertise.

- / International organisations (WHO, etc.)
- / European Commission
- / European health authorities and agencies (ECDC, HERA, etc.)
- / European and international associations (IANPHI, EuroHealthnet, IUHPE)
- / National public health agencies in other countries
- / Embassies and consulates

TRAINING AND RESEARCH

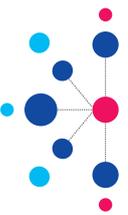
The agency bases all of its actions on scientific excellence. It draws on solid collaboration with research and academic partners in order to deepen knowledge and extend its reach, pushing forward on mechanisms for monitoring, preventing and responding to health crises.

- / Academic partners
- / Research institutes and organisations
- / Learned societies
- / Higher education and training
- / Research community

STAKEHOLDERS

The agency's governance is based on a founding principle of openness to society. The agency participates in the work of the National Health Conference (CNS, *Conférence nationale de santé*) and implements mechanisms for dialogue in a range of fields; this includes a participative approach to affected populations at local level.

- / National Health Conference (CNS)
- / Regional Conference on Health and Independent Living (CRSA, *Conférence régionale de la santé et de l'autonomie*)
- / Networks of associations
- / Populations
- / Trade unions
- / Non-Governmental Organisations
- / Professional stakeholders
- / Prevention stakeholders



**Santé
publique
France**

Supervisory
body: General
Directorate
for Health
(DGS, *Direction
générale de la
santé*) – Ministry
of Health

MEDIA

Santé publique France shares its scientific results with the media, explaining the methods it employs, the purpose of its surveillance systems, and the reasoning behind its prevention messages. The agency also releases all of the indicators it produces to the public.

- / Press, journalists
- / Social media
- / Influencers, KOLs



Prof. Jérôme SALOMON,
Director General for Health

“During this second year of the COVID-19 pandemic, Santé publique France contributed to strategic thinking and was a key national player in the management of this unprecedented health crisis: dozens of epidemiological indicators were produced and made available as open data to inform public decision-making, and enable citizens to take ownership of major challenges, expert support was provided in developing health policies and containment measures, and management of the healthcare reserve and stockpiled inventory to respond to the crisis was made possible through its pharmaceutical establishment, meaning local areas and facilities under stress could be supported. In addition to its role in managing the health crisis, the agency and its teams have been able to mobilise to respond to major public health challenges and support prevention throughout life and in all settings, with the goal of reducing social and regional health inequalities. This has meant there has been real progress benefiting the health of populations, particularly in the areas of mental health, the prevention of addictive behaviour, environmental health, and the needs of parents and those involved during the crucial period of the first 1,000 days.”



JOINING
FORCES TO FACE
HEALTH THREATS

PUBLIC HEALTH IS A SCIENCE THAT ENTAILS COLLECTIVE ACTION AND MULTIDISCIPLINARY MOBILISATION

Since the beginning of the health crisis, what common ground has linked the Scientific Advisory Board and Santé publique France?

Jean-François DELFRAISSY / Santé publique France has worked with the Scientific Advisory Board from the beginning of the health crisis. The Chief Executive of the Agency was present at the very first meeting of the Board, which was followed by the government's decision to announce a lockdown. The partnership with Santé publique France has offered numerous advantages for the Scientific Advisory Board, which is a small organisation, as much in terms of the vast information inputs as the ease of communication. Navigating the crisis together allowed both institutions to grow closer and strengthen ties.

Laetitia HUIART / On a daily basis, Santé publique France is involved in meetings of the Scientific Advisory Board and ensures that as much of the most accurate and current information as possible is regularly communicated. Moreover, the agency participates as an expert and seeks to shed light on the epidemiological situation.



Pr Laetitia HUIART,
Scientific Director,
Santé Publique France

The alliance between Santé publique France and the Scientific Advisory Board means that data can be consolidated and interpretations compared in a wide range of disciplines.

In what ways have you mutually benefited and enriched each other through these exchanges since the beginning of the health crisis?

L. H. / We have come a long way and it is important to take the time to look at all the experience and skills acquired. In particular, I think about the lessons we can draw from the implementation of technological innovations that we contributed to (the SIDEP portal, the EMERGEN platform for variant sequencing, etc.); but also the innovations in our ways of working that allowed us to navigate the different phases of the crisis. Our ability to work with our national and international network has improved and we have gained an agility and an ability to continually renew ourselves. This will characterise our ways of working in the long term.

J.-F. D. / This episode made us aware that when a crisis occurs you must immediately look to a long-term strategy to deal with it. It is also essential to have a European vision. Santé publique France already works with many partners. However, we must go even further and build a true community of thought among the different political decision-makers across Europe.

Are we better prepared today than two years ago?

J.-F. D. / Yes, but you have to be careful. Each new crisis raises new questions.



**RESOLVING
A MAJOR CRISIS
INVOLVES TRUST.”**



Pr Jean-François DELFRAISSY,
Specialist in Immunology
and Chair of the COVID-19
Scientific Advisory Board

The highly centralised organisation of our country continues to struggle to adapt to local conditions, to variations in spread from one place to another, and at the same time the regions are calling for greater independence. We would also have gained by listening to citizens more. Although they do not have the decision-making power, they can inform important decisions. Resolving a major crisis involves trust, and we can still optimise our response.

L. H. / Yes, we have made great progress in the face of the multiple challenges we have faced, but it is also very important not just to leave it all behind us. This crisis led to a collective acquisition of the idea that there is no absolute certainty, so let's not forget that.

Listen
here



PARTNERSHIPS AND KNOWLEDGE SHARING

With the help of its experts and partners, the agency shares its scientific and epidemiological advances concerning COVID-19 through various publications. Santé publique France uses these as the basis to explain, summarise and relay information in the form of articles, infographics, videos, etc.

Expert partnerships for crisis management

The agency sets out the case definition and, using a multi-source data system developed during the crisis in record time from both new systems and existing ones adapted for the cause, it is able to provide a set of indicators for monitoring all components of the epidemic (community, hospital, nursing homes, deaths) at an extremely refined local level (from departments and sub-departments down to municipalities or neighbourhoods), by age group, sex or even place of residence.

Building and strengthening partnerships is involved in the consolidation of a robust and cross-cutting surveillance system.

The plurality and complementarity of these indicators give a holistic analysis of epidemic dynamics and provide expertise at national and local levels. To ensure transparency, the agency publishes its indicators in open access at daily, weekly or monthly intervals.

Several examples are set out in this report, such as the genomic surveillance of SARS-CoV-2 via the EMERGEN consortium with the National Agency for Research on Emerging Infectious Diseases (ANRS-MIE, *Agence nationale de recherche sur le sida et les hépatites virales – Maladies infectieuses émergentes*), the mental health surveillance system, and the knowledge

mobilisation programme MobCo (*Mobilisation des connaissances*).

Agency publications strike the balance between education and clarity

Using data collected by various information systems, the agency produces a daily epidemiological report sent to the crisis centre of the French Ministry for Health. Every day, the key figures are updated and can be viewed on the InfoCovidFrance dashboard via our website.

Every week, national and regional epidemiological updates are published to monitor the circulation of SARS-CoV-2, the morbidity and mortality associated with COVID-19 and the impact of this circulation on the health system (hospital admission

rates). The data and methodologies used are shared on our website and on the Géodes platform. Géodes makes the country's most precise indicators accessible as open data.

Q&A sessions helping the media to interpret the epidemiological updates have been organised every Friday since September 2020, in accord with the agency's duty to educate that forms part of its remit.

Scientific articles published in the agency's weekly epidemiological journal the *Bulletin épidémiologique hebdomadaire*, and then in fast-track BEH special issues, have also served to share COVID-19 knowledge.

The collection “*Le point sur*” produced by the agency brings together short and summary publications. These provide an accurate position of the results of an investigation on a specific date. The ultimate goal is to be informative and accessible to as many people as possible and to regularly communicate the results of work carried out by Santé publique France.

A space entitled “COVID-19 – State of knowledge and useful documents” can be found on our website.

It brings together current knowledge about COVID-19 through literature reviews and rapid summaries for decision-makers produced during the gradual lifting of lockdown.



COVID-19 Epidemiological Update: published weekly in French and English

PUBLIC HEALTH THREATS

Anticipation, preparation and response



THE NEED FOR
A CROSS-CUTTING
AND MULTIDISCIPLINARY
APPROACH TO CRISIS
MANAGEMENT.”

THE CHALLENGES

The circulation of emerging infectious diseases such as zoonoses or vector-borne diseases (i.e., transmitted by vectors, mainly insects) is a high priority threat to health. These diseases are partly linked to environmental upheavals (globalisation, population density and movements, climate change, etc.). But many other health threats need to be taken into account, such as antibiotic resistance, the ageing population, the terrorist threat, major natural and industrial risks, and cyber risks requiring a comprehensive approach to health risk.

The COVID-19 epidemic highlights the need to strengthen our anticipation capacities in public health and to adapt monitoring and surveillance mechanisms to changing threats and technologies. An emphasis on looking ahead and sharing knowledge on risks and preparation systems is also a priority. For example, the crucial role played by COVID-19 protective measures shows that preparation is founded in particular on the ability to quickly promote behaviours that counter modes of transmission.

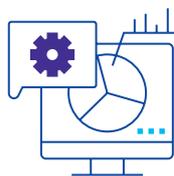
The adaptation of these strategies must be applicable nationally, regionally and locally. It requires citizens to take ownership of their role in health and it must account for area of differing vulnerability.

OUR REMIT

Santé publique France is able to mobilise all of its skills, methods, expertise, infrastructure (pharmaceutical establishment, healthcare reservists, acquisition, storage and logistic capacities, information systems, etc.) to offer the most effective preparation and response possible. To strengthen its capacity to anticipate and respond, the agency periodically evaluates its crisis plan and develops tools for deploying a surveillance system for infections (those caused by viruses, but also by bacteria, fungi and parasites) that will support and complement the epidemiological and microbiological surveillance currently in place. Finally, a policy review is being considered regarding the use of strategic stocks of medicines and health products, as well as the Healthcare Reserve crisis workforce that is managed by the agency on behalf of the State.

A STRENGTHENED MONITORING SYSTEM

Throughout the COVID-19 crisis, Santé publique France has continually adapted its surveillance system in order to produce indicators for monitoring and understanding the dynamics of the epidemic.



123
**INDICATORS
PUBLISHED**

*as open data
to provide close
epidemic monitoring*

Since the emergence of COVID-19, one of the main challenges has been the rapid deployment of a surveillance system that will remain reactive and adaptable over time in order to produce pertinent epidemiological indicators for managing the epidemic.

The primary objective of surveillance is to describe the epidemic and monitor its characteristics in terms of time, location and people (case characteristics), categorised by levels of disease severity. By liaising with all health stakeholders (hospitals, private and public medical laboratories, pharmacies, private physicians, etc.), Santé publique France centralises data transmitted from the field (contamination status, hospitalisations, vaccination, etc.).

In 2020, the agency developed information systems according to these surveillance requirements. In 2021, it focused on managing the numerous indicators produced in order to gain a high level of confidence when interpreting the epidemiological trends observed and therefore provide well-founded answers to the questions asked.

Towards total monitoring

The construction of the surveillance system at the start of the

epidemic was based on a number of pre-existing, directly operational surveillance systems (SurSaUD®, mortality, death certificates) and other systems that were quickly adapted for COVID-19 surveillance (SI-VIC for monitoring victims of attacks and exceptional health situations, surveillance in care homes, serious cases in intensive care).

Next came the National Information System for COVID-19 Screening (SI-DEP, *Système d'information de dépistage de la COVID-19*) which records all test results, meaning all tested cases could be monitored as of May 2020. In order to guarantee personal data protection, an algorithm generates an anonymised pseudonym for linking each test result and for tracking the individual's care pathway via database matching.

Detecting and monitoring variants

The worldwide emergence of the Alpha variant in late 2020, followed by the Beta, Gamma, and finally the Delta and Omicron variants, resulted in major epidemiological shifts that instigated a reinforcement of SARS-CoV-2 genomic surveillance in France. This is the objective of the EMERGEN project, which was created in January 2021



INFOCOVIDFRANCE, THE DAILY DASHBOARD

In addition to the various existing platforms publishing indicators, Santé publique France launched InfoCovidFrance, the agency's dashboard dedicated to COVID-19. It delivers unprecedented data on vaccine logistics and the Healthcare Reserve, in addition to the main indicators already available: monitoring of the epidemic, data on activity in hospitals and primary care networks, contact tracing and prevention, etc.

This format makes key information visible at a glance. These constantly evolving indicators are presented in a manner that is both informative and user-friendly, making them accessible to the entire population. Also available in English, InfoCovidFrance increases the visibility of the agency and facilitates international collaboration.

by Santé publique France and ANRS-MIE in conjunction with their diverse partners to increase genome sequencing capacities for the virus (*see opposite*).

To reduce the significant turnaround times for sequencing, a comprehensive and reactive screening strategy for the specific mutations of certain variants of concern (VOC) was implemented in laboratories using RT-PCR tests, the results of which are available within a few hours. SI-DEP was adapted to receive these test results, which in turn provide data for monitoring and contact tracing. This screening strategy enabled Santé publique France to produce five new indicators relating to the circulation of variants.

In addition, the agency performs frequent assessments on various topics such as the changing patterns of transmission among school-age children or professionals working in healthcare settings. In total, Santé publique France publishes some 123 indicators as open data to monitor the epidemic as closely as possible. The agency shares these indicators with health authorities as well as many research teams. The general public can also access data and indicators via the data.gouv.fr website, the Géodes platform or the InfoCovidFrance service.

EMERGEN, MONITORING THE GENETIC EVOLUTION OF THE VIRUS

The EMERGEN consortium (consortium for surveillance and research on EMERgent pathogen infections via microbial GENomics), created in January 2021 by Santé publique France and ANRS-MIE, brings together all available sequencing capacities from both public and private sources. This includes eight high-throughput sequencing platforms and a network of local laboratories across France. Its objectives are to characterise circulating variants through representative surveys repeated on a regular basis (weekly Flash Surveys), to provide early detection of new emerging variants, and to supply information for research projects. Following sequencing, a bioinformatics platform is used to host and share data.

VIEWPOINT

Prof. Yazdan YAZDANPANAHI,
Director of the ANRS-MIE



"The EMERGEN infrastructure is founded on a partnership and heralds success for both surveillance and research.

ANRS-MIE coordinates the research activities of this platform, which has a presence in mainland France and in overseas territories. We launched a call for projects worth €10 million in July 2021. The first research projects focused on modelling and evaluating the effectiveness of drugs on SARS-CoV-2 variants. EMERGEN has also initiated the international partnerships that are crucial when conducting research on emerging infectious diseases."

VACCINATION: A LOGISTICAL CHALLENGE

To tackle the vaccine emergency, Santé publique France worked alongside the Ministry of Health and with the support of stakeholders across the country to develop an unprecedented circuit covering vaccine purchasing to distribution.

27 DEC. 2020

Start of the vaccination campaign in France

More than

**20,000
DELIVERY POINTS**
served

Ordering portal open to

**87,000
HEALTHCARE
PROFESSIONALS**

155 MILLION
vaccine doses distributed in 2021

The year of 2021 was marked by the coronavirus vaccination campaign, which was unprecedented in its magnitude. This campaign was launched in the population on 27 December 2020, in accordance with the recommendations issued by the HAS (to which the agency contributed). Working closely with the Ministry of Health and the vaccination task force, Santé publique France made use of its pharmaceutical establishment to handle vaccine orders, involving reception, storage and distribution to more than 20,000 delivery points (hospitals, pharmacies, vaccination centres). Santé publique France also provided the associated medical devices (diluent and injection equipment). The agency also contributed to vaccine donation operations, through multilateral (Covax) or bilateral programmes.

Every convoy custom-designed

Logistic networks were adapted to suit each crisis management phase, each vaccine and the availability of doses, always with the same objective: to vaccinate the entire French population as soon as possible. To meet this large-scale logistical challenge of delivering millions of vaccines and medical devices, Santé publique France relies on its agents, 100 key establishments, as well

as wholesale distributors. A total of 2,500 professionals were mobilised for these logistic operations and 155 million doses of vaccine were delivered between December 2020 and March 2022.

The first vaccinations were carried out with the Pfizer-BioNTech vaccine, after the super-freezers acquired by Santé publique France were set up; subsequently, the Moderna vaccine also became available at vaccination centres on 12 January 2021. Vaccination in primary care networks began with the Oxford-AstraZeneca vaccine as of 7 February 2021. Messenger RNA vaccines were available as of 23 May 2021 for the Moderna vaccine and 5 September 2021 for the Pfizer vaccine.





TOOLS TO INFORM HEALTHCARE PROFESSIONALS AND THE POPULATION

With the goal of sharing the right information to encourage vaccination uptake, the agency deployed new tools with the aim of reaching the widest audiences possible: healthcare professionals, the general public, vulnerable groups or people living in a precarious situation.

Practical information sheets provide information on the value of COVID-19 vaccination and advice on how to get vaccinated. They are accessible, image-based and translated into several languages.

Vaccination-info-service.fr, the official website for vaccine information launched in 2017, now has a section dedicated to COVID-19

vaccination. It offers answers to a broad variety of questions through major themes such as “Who should be vaccinated and why?”, “Effectiveness and impact” and “Main contraindications”. The site also provides an area specially designed for healthcare professionals, which provides materials to support dialogue with their patients.

Public information sheet on COVID-19 vaccination



Monitoring vaccination coverage

The agency is also responsible for producing vaccination coverage indicators that identify and monitor the percentage of people vaccinated in the target population. To do this, Santé publique France takes information from Vaccin Covid, a database administered by the French health insurance system and the health professionals performing vaccination, and makes it available to everyone. Additional data on population adherence to vaccination are also collected via specific surveys.

All indicators for vaccination coverage are published on InfoCovidFrance, alongside those used to monitor changes in the number of vaccine doses shipped, the amount of equipment available and the total number of road journeys organised to deliver vaccines under the required storage conditions since the beginning of the epidemic.

SURVEILLANCE AND EVALUATION OF THE VACCINE STRATEGY

VIEWPOINT

Prof. Alain FISCHER, doctor and medical researcher, Professor of Paediatric Immunology, Coordinator of COVID-19 Vaccine Strategy in France



“The Advisory Board for Vaccine Strategy advises the Government on the vaccine strategy as well as on communication with health professionals and the population. On numerous occasions since December 2020, we invited experts from Santé publique France to participate in working meetings to draw up a roadmap and collect the results of the studies conducted on vaccination monitoring and impact. We have received daily statistical reports to update us on the progress of the vaccination campaign along with statistical data on the epidemic’s progression.

Opportunities for informal discussions with Prof. Geneviève Chêne, the Chief Executive of Santé publique France, and her teams have allowed us to refine our analyses and to get involved in preparing opinions and notes. These interactions have been essential as they supply us with the information needed to analyse the progress of the vaccination campaign and its impact, providing the basis for further discussions among experts.”

FIGHTING COVID-19 ON THE GROUND

The objectives have been to provide authoritative information that gives everyone a comprehensive understanding of the epidemic and its dynamics, while identifying individual and community issues in order to encourage behaviours that support the collective endeavour. Constantly adapting the communication campaigns to evolving knowledge and different audiences has been a real challenge.

Prevention tools for every audience

Posters translated into multiple languages, videos and audio announcements are amongst the information tools that the agency has created for healthcare professionals, the general public and vulnerable people. It also played a role in setting up helplines for people in psychological distress.

In order to limit the spread of the virus, Santé publique France broadcast

public announcements about protective measures and what to do in the event of a positive test, as well as producing posters on protective measures. It also published guides on how to use self-test kits. For healthcare professionals, the agency added a new brochure about COVID-19 vaccination to the “*Repères pour votre pratique*” (“Pointers for your practice”) series. This meant they were equipped to answer their patients’ questions.

At the same time, working with associations, it developed specific and accessible tools for populations in precarious living conditions. Prevention messages must be addressed to all population groups in the country, including the most vulnerable. These tools were produced in formats that take into account a person’s ability to understand information, particularly for the benefit of their health. The main targets are those staying in hostels or drop-in centres, in temporary accommodation or with no fixed abode.



Promotion for the freephone health line dedicated to young people

Psychological support

The agency also helped strengthen the national support system of helplines. A national coronavirus information hotline was set up by the Ministry of Health, with a toll-free number open to the general public 7 days a week and 24 hours a day to answer questions about COVID-19. However, with the large-scale deterioration in mental health and widespread onset of psychological distress, the Ministry set up a national platform for listening and psychological support accessible as a second level on the toll-free number. “Santé publique France helped to

Healthcare Reserve: Provision on an unprecedented scale

The Healthcare Reserve of Santé publique France is a community of voluntary healthcare professionals (doctors, caregivers, lab technicians, radiology technicians, etc.) that can be called on by the State to respond to exceptional health situations. In 2021, the number of healthcare professionals signed up to the Reserve increased by 1,600. Requests are made by regional health agencies, which assess needs together with healthcare institutions. After arbitration by the health crisis centre, the Healthcare Reserve unit alerts and set up the teams. *“With coronavirus, we typically find ourselves in exceptional healthcare circumstances that existing healthcare infrastructure cannot respond to,”* states Catherine Lemorton, head of the Healthcare Reserve unit. In these circumstances, the Healthcare Reserve has intervened



THE STRENGTH OF THE HEALTHCARE RESERVE IS ITS POOL OF COMMITTED VOLUNTEER HEALTH PROFESSIONALS WHO ARE ABLE TO ANALYSE SITUATIONS AND ADAPT.”

to support local capacity and reinforcements based on previously identified needs. For example, a hospital in one region may require ten intensive care nurses and three anaesthetists over a two-week period. Assignments due to COVID-19 in 2021 accounted for more than 78,000 person days, 85% of which were overseas. The scale of this provision is unprecedented.

strengthen this programme by involving two associations that it subsidises (SOS Amitié and SIS Association), meaning it could make use of experienced helpline staff already trained in preventing declining well-being through remote assistance,” said Lætitia Chareyre, head of the healthcare telephony strategies and delivery unit. Since its introduction, nearly

22,000 calls have been redirected from the first to the second level to ensure that psychological distress does not go unheard.

Santé publique France regularly updates the list of national remote support programmes, distributing it widely among its partners and on social media.

–#JENPARLEA [ITALKTO], A CAMPAIGN TARGETING TEENS

The objective of this campaign launched in June 2021 was to limit the impact of the health crisis on the mental health of young people by encouraging them to talk about it, either with a trusted person or via the remote health support service for young people “Fil Santé Jeunes” (“Youth Health Line”). This anonymous and free service, aimed at young people aged 12 to 25 years, offers a hotline open 7 days a week from 9 a.m. to 11 p.m. and a website with information, a forum, a chat, and instructions on how to access support programmes. *“Young people have benefited from a good level of exposure to the campaign and perceived it favourably, in particular those who reported feeling sad, stressed or anxious,”* notes Lætitia Chareyre.

Results: Daily visits to the website up 67% and messages received through the chat up 116%.

A hackathon open to everyone



Over two days, some one hundred people took part in this development marathon with the goal of devising new applications that better inform people about the epidemic or facilitate the reopening of certain places. Initiated by community stakeholders and organised with the support of the Interdepartmental Directorate of Public Transformation as part of the project “Gouvernement ouvert” (“Open Government”), this hackathon took place on 23–24 April 2021. Santé publique France was a partner of the event and participated by contributing the open data behind 148 indicators via the Géodes mapping platform.

Regional teams working closely to communities

Each phase of crisis management has required agility to handle. This was made possible in particular by the expertise of the 16 regional units that work as closely as possible to communities, adapting to their specific needs. Their work helped the authorities, regional health agencies, prefectures and elected officials with decision-making: providing continuous expert support, updating daily dashboards, contextualising analyses for alert purposes, cluster monitoring (SI-MONIC) using a shared method, performing epidemiological investigations, responding to media requests, linking with stakeholders, and producing epidemiological updates. These aspects all helped light the way to steer the response to the epidemic.

SURVEYS: TOWARDS A BETTER UNDERSTANDING OF THE EPIDEMIC AND ITS IMPACTS

Working with a number of partners, Santé publique France has focused on improving our understanding of the epidemic's dynamics, its impact on the health, well-being and mortality of the population, increasing awareness of health behaviours and improving monitoring.



MORE THAN
65
SURVEYS
conducted with
partners or
research teams

In addition to the various surveillance systems implemented in the general population or for specific populations, Santé publique France has initiated or contributed to a number of studies, using its scientific expertise to further knowledge about disease. The aim was to provide information to guide political decision-making for real-time crisis management.

This expertise was developed with a wide range of partners: research teams from the National Institute of Health and Medical Research (INSERM, *Institut national de la santé et de la recherche médicale*) and the National Centre for Scientific Research (CNRS, *Centre national de la recherche scientifique*) amongst others; health professionals; learned societies such as the clinician sentinel network (réseaux sentinelles de cliniciens), the French Paediatric Society (SFP, *Société française de pédiatrie*) and paediatric intensive care doctors; universities and community stakeholders such as Doctors Without Borders (MSF, *Médecins Sans Frontières*); patient associations, etc.

Different studies, different goals

Faced with a predominantly airborne virus, individual behaviours

were analysed in order to measure the effectiveness of simple protective measures and their place in the prevention system. CoviPrev, the very first survey, was launched in March 2020 to monitor changes in behaviour (protective measures, lockdown, alcohol and tobacco use, diet and physical activity) and mental health (well-being, disorders). It has been repeated at regular intervals during the different phases of the pandemic. By February 2022, 31 waves of the CoviPrev survey had been carried out. Other studies aim to understand the modes of transmission and risk factors: investigations of clusters, multimorbidity studies, etc. Certain surveys focused specifically on the quality of life of the French people: ViQuoP, a survey of 60 people on changing health behaviours and self-perceived health status; Confeado, which looked at children's experience of lockdown; Covimater, which addressed pregnancy care. Other studies aim to understand the behaviour of the French people concerning COVID-19 prevention: CoVaPred looks at the protection measures adopted by the population and assesses vaccination intentions, while CAPP-VaCov anticipates COVID-19 vaccination uptake among healthcare professionals.





**COMCOR,
A STUDY ON THE SITES
OF CONTAMINATION
AND THE EFFICACY
OF VACCINE**

3 QUESTIONS FOR
Prof. Arnaud FONTANET,
Head of the Pasteur Institute's
Emerging Diseases Epidemiology
Unit and member of the COVID-19
Scientific Advisory Board



What is the ComCor Study?

This is a national case control study, launched in October 2020 by my team at the Pasteur Institute, in conjunction with the National Health Insurance Fund (CNAM, Caisse Nationale d'Assurance Maladie), the IPSOS Institute and Santé publique France. The objective was to identify the places and activities associated with the risk of SARS-CoV-2 infection.

How was the study conducted?

A link to the study website was sent to "cases", a list of people who had tested positive for COVID-19 compiled by the CNAM. The same link was sent by the IPSOS survey group to "controls": people of the same age, sex, and place of residence as the cases, but who had not been infected. The same questions were asked: social and demographic characteristics, family and professional environment, vaccination history, comorbidities, places visited, etc. We then used our statistical models to analyse all of the data with the aim of identifying places and behaviours that led to risk. This tool is still operational, and continues to provide us with information on variants.

What are the key findings?

This study identified private meetings and visits to bars, restaurants or indoor gyms as activities leading to a risk of SARS-CoV-2 infection. It also showed that there was an increased risk of infection associated with homes in which children live: first teenagers, then children attending primary school once teenagers were vaccinated. On the flip side, it showed that remote working was protective. These data have resulted in several publications in the Lancet Regional Health Europe.

Multiple partnerships

In addition to the surveillance tools set up, Santé publique France has applied the expertise gained through organising surveys such as EpiCov and SAPRIS to investigating the immune status of the French population in order to respond to this challenge. In conjunction with the Pasteur Institute, it conducted a study to monitor seroprevalence, i.e., the proportion of people who developed SARS-CoV-2 antibodies in the general population throughout the epidemic and vaccination programme.

The agency also collaborated with modelling teams, mainly from INSERM

and the Pasteur Institute, as part of their work to set out scenarios predicting the evolution of the epidemic.

Finally, another part of the agency's remit is to establish the extent of the burden of the COVID-19 crisis. To this end, research has been developed to document the impact of the pandemic and its management on a number of health determinants (alcohol or tobacco use, addictions), the health of workers, healthcare use and participation in screening campaigns for other diseases, frailty and independence among the elderly, and antibiotic resistance.

**_MENTAL HEALTH:
A MAJOR CONCERN**

The health crisis has been a catalyst for mental health problems in France, highlighting the need to pay specific attention to this phenomenon. Santé publique France has set up a survey system to observe, among other things, the impact of this epidemic and the health crisis on the mental

health of the French people, and to identify the most vulnerable populations (CoviPrev, ViQuoP, Covimater, children's mental health, etc.). These surveys, in addition to scientific knowledge gained from the literature, help to build and strengthen messages for the population.



COMMITTED
TOGETHER
FOR ONE
HEALTH

PUBLIC HEALTH IS NOT JUST HUMAN HEALTH

Prof. Geneviève CHÊNE,
Chief Executive,
Santé Publique France



How is it important to think holistically about all aspects of good health: humans, animals and the state of our ecosystems?

Prof. Geneviève CHÊNE / The World Health Organization (WHO) has shown that, in Europe, environmental factors that could be avoided or eliminated cause 1.4 million deaths per year, or at least 15% of deaths. Furthermore, the recent SARS-CoV-2 pandemic illustrates the extent to which, in a context of climate change, the interaction between infectious agents, human or animal hosts and the environment is at the heart of the emergence of infectious diseases. Our environment and health are therefore closely interlinked.

Roger GENET / Since the time of the plague or, more recently, AIDS, we have known that animal diseases can be transmitted to humans. But the challenge today is not so much to agree on the importance of this concept of the interdependence of health, what the United Nations calls "One Health" as to put it into practice.

With regard to these complex health risks, how do the remits of Santé publique France and ANSES complement each other?

G. C. / ANSES informs us about the risks associated with biological, chemical and physical agents and organisational factors. The agency carries out monitoring, vigilance

and socioeconomic evaluation of management measures. For its part, Santé publique France documents the current situation (epidemiological investigation, surveillance of populations, exposures, impacts, etc.) and calls on its network to provide answers in terms of prevention and health promotion.

R. G. / The complementarity of skills between the National Reference Centres (CNR, *Centres nationaux de référence*) led by Santé publique France, which monitor emerging issues in human health, and our national reference laboratories, which do the same for animals and food, is a powerful combined lever for action in public health.

Can you give some examples of your joint projects?

R. G. / In summer 2021, ANSES was able to track the origin of an individual's influenza contamination to pigs within a farm. In complement to this finding, Santé publique France established the procedure for the farmer to follow while passing on information to European and international health authorities, as well as to the High Council for Public Health (HCSP, *Haut Conseil de la santé publique*). With regard to the surveillance of Lyme disease, transmitted by ticks, Santé publique France relies on the data collection and analysis work carried out by our wild fauna laboratory in Nancy and on our joint research unit shared with the National Research Institute for Agriculture, Food and Environment (INRAE, *Institut National de recherche pour l'agriculture, l'alimentation et l'environnement*), as well as the veterinary school in Maisons-Alfort, to support its public awareness campaigns.

G. C. / It is by bringing together the best skills from across the country,

as well as at the European and international levels, that we can improve and protect our health. For this reason, we are very proud to be contributing to the European Partnership for the Assessment of Risks from Chemicals (PARC), coordinated by the ANSES, as part of the European Union's key funding programme for research and innovation, HORIZON EUROPE (2021–2027). The objective is to strengthen biomonitoring methods and in turn improve tools for monitoring population exposure to chemical substances. This initiative is particularly emblematic of this continuity of our remits, for the common good.



LET'S BREAK DOWN ALL OF THE WALLS, IT'S THE ONLY WAY TO MEET THE ENVIRONMENTAL, CLIMATE AND DEMOGRAPHIC CHALLENGES AND PROTECT OUR HEALTH."



Roger GENET,
Chief Executive of
the National Agency
for Food, Environmental
and Occupational Health
and Safety (ANSES)

Listen
here



ENVIRONMENTAL HEALTH

Climate change and working environments



40,000

DEATHS LINKED
TO AIR POLLUTION
ANNUALLY

_THE CHALLENGES

In Europe, 1.4 million deaths per year are thought to be due to environmental factors that could be avoided, i.e., at least 15% of deaths. Environment and health are closely inter-linked and overlap with fields as broad as climate change, substance exposure in daily environments (rural or urban areas, quality of housing), consumption habits (diet, everyday products and consumption), or the working environment of the population. The COVID-19 pandemic also highlighted the interactions between the quality of the environment, the emergence of infectious diseases and the incidence of chronic diseases, partly linked to or aggravated by environmental pollution. With a precise understanding of the impacts of the environment on health (environmental burden) still difficult to establish today, reducing population exposure to environmental harms is an essential action for protecting public health. This implies the use of intersectoral indicators across European institutions, central and decentralised administrations, local authorities and businesses.

Among the priority issues for Santé publique France are the risks related to global changes (climate change, biodiversity loss), exposure and impacts related to chemicals (endocrine disruptors, phytosanitary products), environments (air, water, soil, etc.), industrial areas or working conditions.

_OUR REMIT

Santé publique France evaluates and quantifies exposure to environmental and occupational risk factors, with the aim of measuring and preventing impacts on health, promoting health-friendly environments and assessing the effect of the actions taken. Particular importance is given to the circumstances of vulnerable populations and regional inequalities, which increase the impacts of the environment on health. Santé publique France's remit is to support public policies nationally and regionally in order to protect the health of populations exposed to environmental harms.

Santé publique France works with a network of partners nationally (ANSES, the French Agency for Ecological Transition [ADEME], the Scientific and Technical Centre for Buildings [CSTB], Météo France, etc.) and internationally to model the changing pattern of possible risks using epidemiological evidence on a global scale. Finally, the agency has developed a strategy for influence and advocacy in public policies, to encourage the implementation of health-friendly environments suited to the different local issues of decision-making and intervention.



COP26: Standing with IANPHI to reaffirm the role of public health institutes

On 10 November 2021 in the WHO pavilion of the Glasgow COP26 summit, Santé publique France, IANPHI and Public Health England held an event promoting the role of national public health institutes in building solutions and adaptation policies to counteract climate change.

Climate change and biodiversity loss are identified as major threats to public health. Impacts are already visible in France and around the world, including the increase in extreme weather events or the emergence and severity of certain infectious diseases such as zoonoses or vector-borne diseases. To protect the health of current and future generations, we must adapt to a new climate while reducing greenhouse gas emissions and preserving biodiversity.

Joint action at the international level

Within IANPHI, Santé publique France has initiated a movement to bolster the contribution of public health agencies and professionals to designing and evaluating public policies aimed at climate-change mitigation and adaptation. Prof. Geneviève Chêne and Prof. Duncan Selbie, president of the IANPHI, presented the current state of play and the outlook for the coming years on 10 November 2021 in the World Health Organization pavilion at COP26.

This work underlines the urgent need for action in order to mitigate the impact that

climate change may have on the health of populations. Given their functions relating to the detection and prevention of health risks, national public health institutes have a key role to play in achieving this objective.

Santé publique France is working together with IANPHI to strengthen the capacity of public health institutes on climate and biodiversity issues. Through knowledge sharing, case studies and multisectoral partnerships, these two organisations intend to develop common indicators on the health impacts of climate change.

Initial partnership agreement signed by ADEME and Santé publique France

Santé publique France and ADEME, the French Agency for Ecological Transition, have signed a framework agreement steering their joint actions towards gaining a better understanding of how the environment and climate change affect health, as well as how to prevent such impacts. Several priority topics have been identified for the next five years: air quality, climate change, polluted sites and soils, prevention and health promotion.

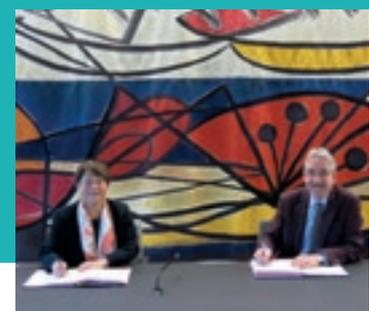
The two agencies share the same remit in two complementary fields: organising actions in favour of healthy environments and promoting environments favourable to health. For this reason, the two agencies have developed closer ties over the past few years, cooperating on work around the impact and prevention of outdoor air pollution and around food sustainability.

With this agreement, the aim is to strengthen complementarity and build synergies in the long term, in particular on the impact of climate change on health.

SANTÉ PUBLIQUE FRANCE: AN ACTIVE MEMBER OF IANPHI

Santé publique France has been a member of the International Association of National Public Health Institutes (IANPHI) since 2007, providing and hosting the organisation's secretariat since 2016. A new agreement has now been signed, engaging the agency for a further four years (2022–2025), reaffirming the ongoing commitment and contribution of Santé publique France to IANPHI activities. The organisation was created in 2006 by the directors of several national institutes (United States, China, Brazil, Finland, Mexico).

It now comprises 110 members from 95 countries.





Heatwaves and very high temperatures: A new communication campaign

The national heatwave plan is activated every year on 1 June. On this date, Santé publique France launched its seasonal surveillance programme and issued reminders about how people can protect themselves from very high temperatures.

In order for people to take appropriate action in the event of a heatwave, they must first understand the risks. This is the approach used by the agency for the prevention schemes and communication campaigns, produced in conjunction with the Ministry of Health, which are designed to raise awareness among the population

according to the warning level. In 2021, the national communication campaign was revised with the main objective of showing that heatwaves and the potential consequences can affect anyone and everyone.

New TV and radio announcements were broadcast through media requisition following a widespread national heatwave alert. A digital system was set up with geographically targeted messages sent to the most vulnerable people via social media, screens in local retailers and text messaging as soon as a department was issued an orange warning.



Heat and health: public information sheet

The resources have also been revisited: a poster available in French and English as well as two documents in the "Pointers for your practice" series were distributed. The latter, aimed at healthcare professionals, discuss best practices in relation to the most vulnerable adults and children.

Ambient air pollution: New estimates of the health impact on the French people

The strict lockdown implemented in March 2020 led to a massive slowdown in the activity and movement of the population. This had health, economic, social and environmental consequences.

As part of its overall monitoring of the epidemic, Santé publique France subsequently estimated the consequences of reductions in ambient air pollution on mortality.

The results, published in April 2021, show that the time-limited reductions in pollution levels in spring 2020 were associated with non-negligible health benefits, with around 2,300 deaths avoided due to a decrease in the exposure of the French population to particulate matter. This estimate confirms that voluntary action to reduce fine particle emissions results in a significant reduction in the impact of air pollution on health, and mortality in particular.

Moreover, Santé publique France updated the estimate of the total burden of ambient air pollution on the health of the French population for the period 2016 to 2019. It concluded that mortality linked to ambient air pollution remains a significant risk in France, with 40,000 deaths attributable each year to fine particles. This work once again underlines the importance of continuing efforts to reduce air pollution through action on all sources of pollution.



National Air Quality Day 2021

On National Air Quality Day, Santé publique France and its partners published new national and regional data in a report on the impact of air pollution and on the links between exposure to outdoor air pollution and neurological mental disorders.

The objective of this study was to update knowledge on the subject and consider the feasibility of a quantitative health impact assessment on outdoor air pollution (QHIA-AP) in France.

7,500

HEAT-RELATED DEATHS SINCE 2015

Atmospheric pollutants: WHO reviews reference thresholds

A comprehensive review of the literature published over the past 15 years has led WHO to produce new guidelines concerning ambient air quality. These call for much lower and stricter thresholds than those set in 2005 in order to better protect population health.

According to WHO, each year approximately seven million premature deaths are due to the effects of air pollution, including more than four million that are related to ambient air quality.

Air pollution in the Auvergne-Rhône-Alpes region: First quantitative regional assessment

On National Air Quality Day, Santé publique France published results from work carried out on the impact of air pollution on health in the Auvergne-Rhône-Alpes region. This quantitative health impact assessment (QHIA), conducted on the period 2016–2018, was the first on a regional scale and it showed that ambient air pollution remains a major health issue.

Every year, in Auvergne-Rhône-Alpes, nearly 4,300 deaths can be attributed to exposure of the population to fine particulate matter (PM_{2.5}) and 2,000 deaths to nitrogen dioxide exposure (NO₂: trace pollutant linked to road traffic). The QHIA results, which can be viewed at sub-regional scales, underline the

importance of continuing efforts to reduce air pollution through action on all sources of pollution. They can be used to raise awareness among the population and to support local efforts to implement public policies for improved air quality.

Santé publique France has produced a practical guide for local authorities, state departments, public bodies, approved air quality monitoring associations (AASQA, *Associations agréées de surveillance de la qualité de l'air*), regional health observatories (ORS, *Observatoires régionaux de santé*), research firms, etc., who intend to perform a QHIA on outdoor air pollution following WHO recommendations and using the same tools as the Air and Health Surveillance Programme (PSAS, *Programme de surveillance air et santé*).

This guide is available in three versions according to the objectives set and the available air pollution exposure data.

ALMOST

4,300

DEATHS PER YEAR LINKED TO FINE PARTICLE (PM_{2.5}), EXPOSURE IN AUVERGNE-RHÔNE-ALPES

Arboviral disease: Identifying the determinants for emergence

Vector-borne diseases are an emerging risk, the epidemiology of which is particularly influenced by global changes (globalisation, demographics, urbanisation, climate change, etc.).

In Europe, the risk of circulating arboviral disease (dengue fever, chikungunya virus, zika virus) has emerged over the past two decades, particularly due to the arrival of an invasive species of mosquito, *Aedes albopictus* (commonly called tiger mosquito), capable of transmitting these viruses. The surveillance systems in place must adapt to fluctuating levels of imported cases, the emergence of new viruses and the growing geographical area conducive to their transmission. It follows that optimising surveillance systems is a public health issue. In view of this conclusion, the agency conducted a study in conjunction with the Research Institute for Development (IRD, *Institut de recherche pour le développement*) to identify the various environmental, climate and sociological determinants that

favour the emergence of arthropod-borne viruses in mainland France. Three factors associated with autochthonous transmission were identified: a significant delay before an imported case is reported and, to a lesser extent, the build-up of heat during the season or the presence of vegetation around the residences of people with imported cases.

These reporting delays apply in particular to cases not detected by monitoring and the small number of cases that are reported very late. This finding highlights how important it is for health professionals to diagnose and report arboviral diseases, as well as the need to inform those travelling to and from high-risk destinations. The other two factors identified (heat build-up and presence of vegetation) can be interpreted as indicators of conditions conducive to mosquito proliferation. These findings can guide prevention measures as they allow for high-risk areas and periods to be more closely defined.



Exposure to pesticides: Results of the Esteban study

As part of the national biomonitoring programme, Santé publique France published two components of the Esteban study. One concerned exposure levels to five pesticide families, as well as PCBs, dioxins and furans found in diverse environmental and food sources. The other described exposure to 27 metals, measuring their presence in adults and, for the first time on a national scale, in children.

Blood lead levels in children: Monitoring after the fire at Notre Dame Cathedral in Paris



Following the fire at Notre Dame Cathedral in Paris on 15 April 2019, and according to the guidelines for lead poisoning screening issued by the Île-de-France Regional Health Agency, monitoring of blood lead levels in children was carried out in June 2019 by the Santé publique France regional unit with the Paris Poison and Toxicovigilance Centre (CAPTV, *Centre antipoisson et de toxicovigilance*).

Out of more than 1,200 screenings performed in the schools of the districts exposed to smoke, thirteen cases of lead poisoning (blood lead greater than or equal to 50% $\mu\text{g/L}$) were detected. The exposure levels of children living around Notre Dame were similar to those estimated in the general population and lower than those of children screened in Paris over the period 2015–2018. While environmental investigations of the thirteen children with lead poisoning do not preclude exposure related to fire, they demonstrated that the source of lead exposure was independent of the fire for all of the children with lead poisoning.



Lubrizol and NL Logistics: Impact of industrial fire on health

Following the fire at the warehouses of the companies Lubrizol and NL Logistics in Rouen (76) in September 2019, the health, ecology and labour ministries asked Santé Publique France to set up an overall epidemiological evaluation of the fire's health consequences, whether

they occurred at the time of the accident or appeared several months or years later.

The project "Santé post-incendie 76" includes four studies that focus on a wide range of health effects. The first results were published in July and December 2021.

PRIOR study: Residents in the Orbiel Valley and their perceptions of risks and practices

Over the last 20 years, pollution from former mining sites has been the subject of numerous studies in the fields of environment and health. The concerns of inhabitants were renewed with the floods in 2018. In this context, Santé publique France was asked by the Occitania Regional Health Agency whether it would be useful to repeat health studies. The agency proposed implementing an approach that would give

the population an opportunity to have their say; by gathering the concerns, questions, expectations and local knowledge related to the practices of the inhabitants in the area, it would provide answers that meet the expectations of the population as closely as possible. This study is conducted in partnership with scientists from the University of Toulouse - Jean-Jaurès (UT2J) and the CNRS.

Shooting ranges: Lead poisoning in children

In June 2021, Santé publique France published a three-year review of reported cases of lead poisoning in children under the age of 18 linked to attendance at shooting ranges between 2015 and 2018. The agency also reiterated the recommended actions to improve awareness among shooting federation members about the risk of exposure to lead.

Exposure of young children may be caused by direct contamination due to their presence on a shooting range or indirect contamination by dust brought home on a family member who has visited a shooting range for leisure and/or professional reasons.

Preventive actions for populations attending shooting ranges and awareness raising among healthcare professionals are necessary and essential in order to limit the risk of exposure.

PestiRiv: Study of pesticide exposure among residents of wine-growing and control areas

Santé publique France and ANSES are carrying out the PestiRiv study, the main objective of which is to discover whether there is a difference between pesticide exposure in people living near vineyards and those living far from any agriculture. Through this study, we hope to improve our understanding about the origins of these exposures in order to limit them.



Presentation of PestiRiv aimed at study participants

OCCUPATIONAL HEALTH

Occupational health plays such an essential role in public health that Santé publique France takes an integrated view of the environment, combining the general environment and the professional environment.

The agency carries out monitoring on occupational risks, the organisation of work, and the effects on health, producing data to support public authorities, prevention officers, stakeholders and social partners.

Work-related suicides: Towards a specific surveillance system?

On World Day for Safety and Health at Work (see box), Santé publique France published the results of a feasibility study to develop a system for the epidemiological surveillance of suicides

that are potentially work-related, and made proposals to strengthen surveillance in this field.

The aim of this study, conducted with eight forensic medicine institutes and the INSERM Centre for Epidemiology of the Medical Causes of Death (CEPIDEC, *Centre d'épidémiologie des causes médicales de décès*), was not to establish whether work plays a role in the transition to suicidality, but to estimate the proportion of suicides where occupational exposure may have played some kind of a role.

The epidemiology of work-related suicides remains poorly understood in France, despite the growing importance of the subject in public debate. With nearly 8,500 deaths recorded in 2016, France has one of the highest rates of

WORLD DAY FOR HEALTH AND SAFETY AT WORK 2021

The theme of the World Day for Health and Safety at Work 2021 was "Anticipate, prepare and respond to crises: Invest now in resilient occupational health and safety systems". To mark this day, Santé publique France presented several studies that illustrate the actions delivered in terms of surveillance and health promotion in the workplace.

suicide mortality in Europe. This figure is probably underestimated by around 10%, as a number of suicides are recorded as deaths that are undetermined in terms of intent, or as deaths of unknown cause.



Psychoactive substances and work: Practices vary across different sectors

In May 2021, Santé publique France published the results of its Health Barometer survey concerning the consumption of psychoactive substances in the workplace. They show disparities in consumption by sector and highlight the importance of addiction prevention in the workplace.

The use of psychoactive substances such as tobacco, alcohol, cannabis or other illicit drugs has adverse health consequences. Short- and long-term health and social problems make the consumption of these substances one of the main causes of preventable mortality in France.

With a sample of more than 25,000 people, including 14,604 people aged 18–64 and in work, the Santé publique France Health Barometer meant that a map of consumption by professional environment could be drawn up.

MENTAL HEALTH

Mental health is a major public health issue and a priority for the agency. Santé publique France's cross-cutting mental health programme aims to improve the well-being of the population and reduce the morbidity and mortality associated with mental illness. This programme prioritises surveillance and prevention for the most common disorders in the general population, i.e., anxiety-depressive disorders and suicidal behaviour.

ENABEE: A national study on child well-being

Preparatory work on the ENABEE study, aimed at producing indicators on the well-being and mental health of children aged 3 to 11, was carried out in 2021 ahead of its launch in 2022.

The crisis linked to the COVID-19 pandemic has led to the emergence of a pressing need and a strong demand for prevention, support and management of reduced well-being in children and young people. The surveillance carried out by Santé publique France in emergency departments confirms that use of these services for psychological disorders in children and adolescents increased during the health crisis. Furthermore, in November 2021, the Children's Rights Commissioner, Claire Hédon, used her report on the mental health of

children to highlight the importance of developing prevention and management strategies.

It was in this context that the French President announced the launch of a national study on the well-being of children in spring 2020. In 2021, the ENABEE study protocol was written, the governance bodies put in place and the process of consultation with stakeholders initiated. This study, which the agency intends to repeat at regular intervals in both metropolitan and overseas France, will measure and describe the different aspects of well-being and difficulties encountered, and identify the circumstances, determinants and impacts on children's quality of life.

A global monitoring system

The ENABEE study is part of a more global health surveillance system including a barometer for monitoring epidemiological indicators, recurrent monitoring of adolescent health through occasional studies, as well as analyses using medical administration databases.

The results of this scheme aim to improve public policies and offer a standard of living and an environment that allow children to flourish, all the way up to adulthood.



Syndromic surveillance of mental health

As part of the management of the COVID-19 crisis, syndromic surveillance of mental health has been implemented. To this end, Santé publique France publishes weekly bulletins that monitor and analyse visits to emergency departments and consultations with doctors from the SOS Médecins network (motivated by anxiety, anxious behaviours, depressive states, etc.). The purpose of these bulletins is to inform everyone concerned about the changing patterns of mental health among the French people. They can be used to help guide decision-making, proposed actions and, more broadly, to raise public awareness of this issue.

A monthly epidemiological update dedicated to mental health is also produced by the agency. This review, which replaces the weekly epidemiological update on mental health, was launched in February 2021 and is based on data on visits to emergency departments in the OSCOUR® network and consultations with SOS Médecins. This publication aims to provide complementary analysis around indicators and age groups.



ENABEE study: call for participation



**GUIDING
ACTIONS
AT EVERY
STAGE OF LIFE**

THE FIRST 1,000 DAYS: THE FUTURE OF CHILDREN AND SOCIETY AT STAKE

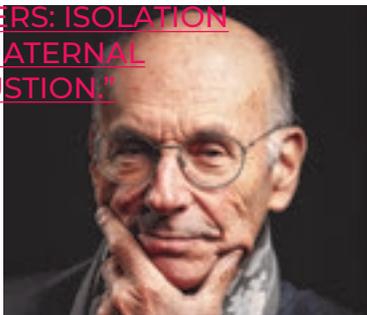
Why are the first 1,000 days of a child's life the target of a concerted support effort?

Boris CYRULNIK / These first 1,000 days cover the period of pre-verbal childhood. It is a fundamental time that begins in the uterus and ends at the onset of speech, at around the age of two. During the first 1,000 days, the child acquires protective factors from the unique sensory inputs that surround them – parents, but also the neighbourhood, culture, etc. – and they will make use of these for their entire life. Conversely, it is also during this period that factors for vulnerability can be acquired; at some point these will need resolving, which is possible, but takes a long time and is expensive for society.

Dr Thierry CARDOSO / This period represents a key challenge for society. Any adverse events experienced during childhood can have an impact throughout life, both in terms of an increased risk of developing chronic diseases in adulthood, and an impact on the ability to build social relationships.



MOTHERS MUST BE PROTECTED FROM TWO MAJOR DANGERS: ISOLATION AND MATERNAL EXHAUSTION."



Boris CYRULNIK,
*Doctor and neuropsychiatrist,
Chair of the First 1,000 Days
Commission*

The commission of experts issued their report in September 2020. What recommendations came from this?

B. C. / During the first 1,000 days, the mother is THE key determinant. A protected mother is protective for the baby she carries. The baby will have everything it needs to develop. Conversely, a mother who does not feel safe during pregnancy – due to loneliness, precarious living, domestic violence, war, etc. – secretes stress substances that alter certain areas of the baby's brain. This cognitive alteration is due not to the mother herself, but rather to the misfortune that she suffers. This is why we need to keep pregnant women and young mothers safe, to be by their sides to protect them from two major dangers: isolation and maternal exhaustion. The first government decisions to this effect have been made, such as extending paternity leave.

T. C. / If the organisation of our society cannot help to protect the mother during this period, it should at least ensure that it does not increase her insecurity. There is a lot to do, especially to help mothers reconcile family and professional life. More broadly, we also need to work on helping those in the support circle, such as healthcare and early-childhood professionals, friends and family, to adopt a day-to-day approach that protects mothers.

In 2021, Santé publique France launched a campaign and a website to support parents (www.1000-premiers-jours.fr). Does this approach overlap with that of the commission?

T. C. / Of course. In particular, we share the same vision of the importance of young parents connecting with each other, sharing their experiences and forging links so they can emerge from isolation. On the ground, we are also



Dr Thierry CARDOSO,
*Head of the Perinatal and Early
Childhood Unit, Preventive
Healthcare and Health
Promotion Department, Santé
Publique France*

trying to identify early solutions that are accessible to all, particularly to the most vulnerable. In several French departments, we are trying out an early prevention intervention in the home and are working to develop other actions, particularly in Mother and Child Services (PMI, *Protection maternelle et infantile*). These include, for example, home visits from PMI health visitors and midwives, before and after birth, to see how the mother is building her relationship with her child, to support and guide her in the creation these attachment bonds. Taking such action is a good way to start addressing social inequalities in health.

B. C. / The other project is adolescence: in France, there is no provision to support young adults leaving the family and embarking on their journey into society. Our young people are cut loose, then they can stray down the wrong path and get hurt by failure. I think there is a need to work on the support network of young people, and to continue this throughout life, up to our senior citizens, who also suffer from loneliness and isolation.

Listen here



CHILDREN AND YOUNG PEOPLE

Santé publique France is formulating preventive actions and information campaigns targeting children and young people in school, at home and during leisure time. New and future parents also receive information to help them act on behalf of their child's future health.

Social and emotional skills for children and young people: A reference framework developed for national rollout

On 14 and 15 December 2021, Santé publique France and its partners hosted an online seminar on the social and emotional skills of children and young people. The programme included ongoing research, knowledge sharing and testimonials on the subject.

Social and emotional skills are at the heart of health promotion and effective prevention programmes; they result in an ability to take positive action on well-being, mental health, addictions, sexual health, and education. On this basis, Santé publique France organised a seminar in

partnership with the steering committee of the national strategy for life skills among children and young people. It was aimed at public decision-makers, health professionals in the social sector, education staff working with children and young people, local stakeholders, researchers and family representatives.

Development programmes on the rise

Programmes to develop social and emotional skills are already widely used in some countries and France has seen rapid growth in this area during recent years,

championed by Santé publique France, the regional health agencies and the ministries.

This seminar provided an opportunity to take stock of current knowledge about social and emotional skills and to look at the historical picture in France. It was also the opportunity to present work on a reference framework for social and emotional skills. This project enters its second phase in 2022–2023, which will focus on producing practical resources for national rollout.

The first 1,000 days of life: Initial information campaign launched

This first campaign, launched in October 2021 by Santé publique France and the Ministry of Health, aimed to raise awareness among current and future parents on the unique aspects of this period and to normalise their questions.

By directing them to the [1000-premiers-jours.fr](https://www.1000-premiers-jours.fr) website and app, the aim is to provide current and future parents with tools and advice that will support and reassure them in their role as parents role, in order to help them act for the benefit of their own health and that of their child.

Launched online on 15 September 2021,

the authoritative site provides scientifically-based information on the child's basic needs: a healthy and safe environment, appropriate diet, stable and secure emotional relationships. The tone of the website is caring and free from judgement, and it allows future parents and parents of children under 2 years of age to get advice that is easy to understand and apply.

In addition, a smartphone app can be downloaded from the site. It includes a personalised appointment schedule, a directory of local healthcare professionals and a questionnaire to detect the risk of postpartum depression.

“Sexotuto”: Sexuality discussed with no taboos in a web series



This series targets young people aged 12 to 18 with funny and educational sketches. Ambre and Eddy, two young adults, guide audiences through a course of 38 short videos on all things to do with sex: puberty, masturbation, consent, etc. Produced by Mesdames Productions, the videos offer a taboo-free discussion of the questions that young people ask about sexual health. The Sexotutu series is available through on Lumni, the France Télévisions educational platform, and [onsexprime.fr](https://www.onsexprime.fr)

Introducing new foods: Supporting parents to follow new guidelines

In September 2021, Santé publique France unveiled the new recommendations on introducing new foods for children aged 4 months to 3 years.



In order to best support new and future parents, as well as health and early childhood professionals, Santé publique France distributed practical tools and educational content through a widely accessible new information campaign. In this way, Santé publique France contributes to establishing environments conducive to healthy eating at all ages. To this end, it also conducts advocacy actions to support a framework for food marketing.

For parents

This information campaign was based on the daily lives of Romy, Sacha, Gaby and Andréa, four babies at different stages of weaning. Four films and six tutorials on different topics are available to parents.

The brochure “Step by step baby learns to eat like a grown-up – the little guide to weaning” was made available for download from the website mangerbouger.fr. It offers recipes that are adapted to the child’s age, meaning a single meal can be prepared for the whole family.

For professionals

All useful content, including a summary of new recommendations, is easily accessible from the Professional Resources area of the mangerbouger.fr site. All professionals can order the brochure to give it to parents.

“En 2-2”, eating better on a small budget

In November 2021, Santé publique France launched a digital information campaign targeting people aged 18 to 25 with tips to improve their diet.

“The objective of this new campaign is to encourage young people aged 18 to 25 to prepare healthy, quick, cost-effective meals by changing the image of healthy eating without compromising on enjoyment or making them feel guilty”, explains Anne-Juliette Serry, head of the nutrition unit at Santé publique France.

This campaign was named “en 2-2”, which is a familiar expression among young French people meaning “quickly”, and it illustrates that “eating

well on a small budget is possible, even if you lack time, skills and equipment”.

Six delicious, healthy and easy-to-prepare recipes were posted on the website, the Instagram account @mangerbougerfr, on other social media used by 18–25-year-olds (Snapchat, Youtube and Twitch) and on the screens of some thirty university campuses throughout France.

Squeezeie gets behind “En 2-2”

Followed by more than 6.5 million subscribers on Instagram, Squeezeie partnered with the project and took up the challenge of making the six recipes, inviting his community to have a go as well, in order to promote home-made food and reduce the consumption of ready meals and ultra-processed products.



_NUTRI-SCORE CAMPAIGN

In July 2021, Santé publique France launched a public information campaign in an effort to improve how people use the Nutri-Score label when making a purchase.

The digital campaign, aimed at people aged 18 to 49, included four 30-second videos broadcast on social media (Youtube, Instagram, Facebook and Snapchat).

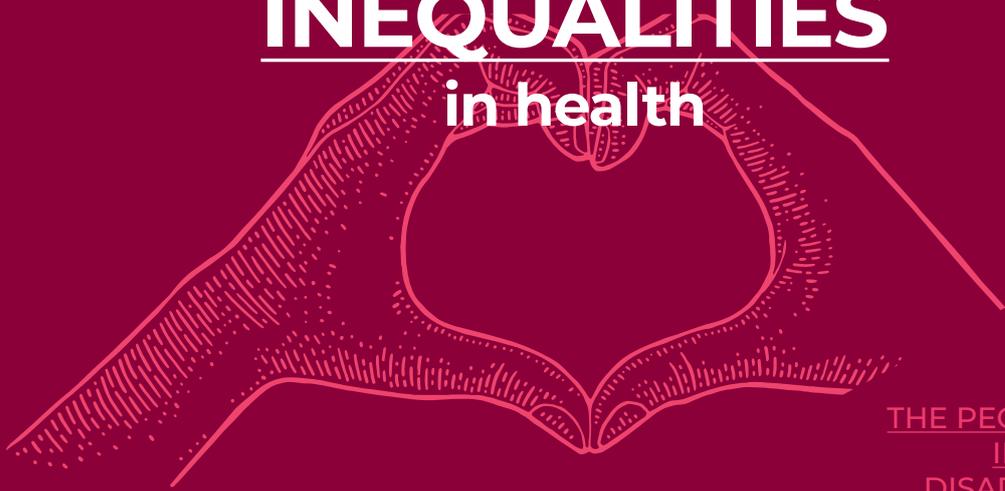
Brochures were distributed to medical facilities where the video was played on waiting room screens, reminding people how to use the Nutri-Score label.

In addition, the campaign includes digital displays in hypermarkets, supermarkets and local stores throughout the country, inviting consumers to use the Nutri-Score label when doing their shopping.

The brochure and videos were also published on the website mangerbouger.fr.



SOCIAL AND REGIONAL INEQUALITIES in health



“
THE PEOPLE LIVING
IN THE MOST
DISADVANTAGED
AREAS HAVE A
POORER CHANCE OF
SURVIVAL.”

_THE CHALLENGES

In France, the population's health status is marked by a paradox: good health on average, yet with particularly marked inequalities that start in childhood and persist throughout life. These inequalities are observed over the entire social gradient. In other words, people with a favourable social position are healthier than those who are just below, and so on to the poorest people. These inequalities result from a complex and often cumulative interdependence between structural determinants (macroeconomic context, social policies, geographical origin, gender and living conditions, etc.) and the intermediate determinants of health status (material and psychological conditions, health behaviours, biological or genetic factors, access to the health system). These include environmental and regional determinants (environmental problems, indoor air quality, water quality, soil quality and land use planning with access to services such as healthcare, transport, food, green spaces, etc.).

The COVID-19 pandemic revealed the impact of these determinants on the health status of populations, hitting the people already weakened by pre-existing social inequalities harder. A precise understanding of the interactions and effects of these determinants is key to improving how they are taken into account and to implementing appropriate actions for these contexts. This issue needs to be addressed in conjunction with national and local decision-makers and stakeholders in order to increase the effectiveness of public policies aimed at reducing such inequalities.

_OUR REMIT

The agency aims to systematically integrate social determinants of health into its surveillance systems, studies and interventions in order to measure and monitor how they change over time and by place. Santé publique France seeks to better understand the mechanisms of health determinants by developing close partnerships with research teams, including internationally.

It also aims to design and adapt prevention and health promotion actions to suit the social gradient, paying particular attention to socially excluded populations.

This means adjusting and tailoring interventions while keeping the socio-economic level of populations in mind. It is also possible to adapt interventions for certain populations with specific access needs.

The agency is also determined to facilitate the introduction of public policies and effective interventions by using different levers of action: mobilising knowledge and paving the way for the parties involved to connect and share experiences (target population, decision-makers, associations, local authorities, etc.), through health literacy and health mediation for the most vulnerable populations.

Evaluation of our first knowledge mobilisation strategy



Santé publique France set up and evaluated a knowledge mobilisation strategy (MobCo) for the benefit of people in extremely precarious living conditions.

The epidemic context linked to COVID-19 carried considerable risks for people living in poverty and especially homeless people. Difficulties in meeting essential needs (water, food and hygiene), as well as issues around access to care, digital technology, education and better mental health care, have been ever more acute for this population during the pandemic.

Santé publique France led a knowledge mobilisation strategy to support people working in direct contact with these populations, researchers

and decision-makers. This approach was inspired by the “transfer of knowledge” strategy developed by the Québec National Public Health Institute. It involved sharing and collectively defining organisational issues to guide the implementation of good practices in terms of action, prevention and health promotion. These best practices are based on knowledge and field experience of screening and vaccination strategies. This approach helped to build information, communication and health education actions, in particular via a Q&A tool about vaccination strategies. It also led to collective consultation processes, which gathered feedback on the difficulties around vaccination faced by people without a social security number.

ASSESSING VACCINE COVERAGE AMONG POPULATIONS IN EXTREME POVERTY

The purpose of the PREVAC study was to estimate vaccine coverage and to identify COVID-19 vaccination obstacles and enablers among populations that live in precarious situations. Led by Épicentre (an

association created by Doctors without Borders) in partnership with Santé publique France among others, the study was designated as a “national research priority for France”.

Providing health mediation to Traveller communities

Santé publique France published the results of a study conducted in 2020 in six departments of Nouvelle-Aquitaine as part of the regional health agency’s plan to tackle COVID-19 among Travellers. This plan helped to guide the implementation of close contact tracing and screening, as well as introducing COVID-19 prevention actions to this population. The study highlighted health mediation as a promising intervention for gaining a better understanding of the challenges faced by people estranged from the healthcare system.

New edition of the bilingual healthcare handbooks

As resources for communication and dialogue between migrants and professionals in health or social care, the bilingual healthcare handbooks are designed to facilitate access to prevention and care. This latest edition, with lots of new content, has been translated into fifteen languages.

It was developed with the Committee for the Health of Exiles (COMEDE, *Comité pour la santé des exilés*) and partner associations based on feedback from users and professionals. The handbooks are available to order free of charge.



Lead poisoning in Traveller communities

After a case of lead poisoning was reported among the children of Traveller families in Charente (16) in 2015, the Nouvelle-Aquitaine Regional Health Agency launched a study from 2017 to 2019 and a screening campaign, in partnership with associations and the National Federation of Associations in Support of Gypsies and Travellers (FNASAT). The FNASAT had asked the agency to describe the cases of lead poisoning and to identify the risk factors associated with its onset. Among children aged 24 months to 17 years with a positive blood lead result, more than one-third had a blood lead level higher than the threshold for intervention of 50 µg/l.

ADULTS

The objective for this age group is to intervene early in order to avoid or modify the behavioural risks associated with multifactorial stresses such as tobacco, alcohol and drugs. Santé publique France offers a range of prevention tools on subjects that affect adults.

Repeat broadcast of an alcohol consumption campaign

The alcohol consumption limits associated with reduced health risks:

- maximum 2 glasses per day;
- not every day;
- maximum of 10 glasses of alcohol per week.

From 8 to 28 March then from 8 to 28 November, Santé publique France ran the fourth and fifth editions of an information campaign on the health risks of alcohol, inviting French people to assess their own consumption.

It featured the question "Can you focus on your alcohol consumption?", reminding the viewer that being drunk is not the only consequence of drinking alcohol. In fact, drinking in excess of the limits significantly increases the risk of having a health problem.

Issue 17 of the journal *Bulletin épidémiologique hebdomadaire* presented the results from the Santé publique France 2020 Health Barometer survey on lower-risk alcohol consumption guidelines.

In France, new alcohol consumption limits to reduce health risks were proposed in 2017. The objective of this study was to estimate the proportion of adults exceeding these limits in 2020 (33% of men and 15% of women), to describe this population and to study the socio-economic disparities in alcohol consumption based on this indicator, by gender. These results mean that prevention actions can be targeted more effectively, taking into account social inequalities in health.

The campaign invites French people to take stock of their consumption using an online "alcohol meter", which recorded nearly one million visits during the two periods. Through this self-assessment tool, people become aware of their level of alcohol consumption. It helps to empower people to make an informed choice regarding lower-risk consumption.

The campaign is broadcast through TV, radio, online video platforms, and social media networks.

Find out more at > alcoometre.fr
alcool-info-service.fr



Alcohol consumption awareness campaign

"Histoires de joint", a campaign to improve understanding of the damage associated with cannabis use



Cannabis digital information campaign

In December, the French Observatory for Drugs and Drug Addiction (OFDT, *Observatoire français des drogues et des toxicomanies*) and the agency published the first results from the 2021 Santé publique France Health Barometer on cannabis use among adults. This data updates the 2017 estimates providing a comparative to monitor changes in usage. Despite a stabilisation in use, cannabis remains the most consumed illegal product in France. These results were published in unison with the launch of "Histoires de joint" a Santé publique France information campaign. Broadcast between 24 November and 17 December, this digital campaign aimed to increase knowledge of the damage associated with cannabis use among consumers and healthcare professionals. It gives the floor to cannabis users in audio testimonials and addresses specific issues in one-minute videos during which experts answer diverse questions on the subject.

Find out more > drogues-info-service.fr

LGBT+, a new campaign against discrimination and violence

The International Day Against Homophobia, Transphobia and Biphobia on 17 May 2021 marked the launch of a campaign against discrimination based on sexual orientation and gender identity, focussing on its impact on health.

This campaign, entitled “Faced with intolerance, we’ll make a difference” (*“Face à l’intolérance, à nous de faire la différence”*) involved several partners: Olivier Véran, Minister for Solidarity and Health; Elisabeth Moreno, Minister Delegate for Gender Equality, Diversity and Equal Opportunities; the Interministerial Delegation against Racism, Antisemitism and Anti-LGBT Hate (DIL-CRAH, *Délégation interministérielle à la lutte contre le racisme, l’antisémitisme et la haine anti-LGBT*) and Santé publique France.

This campaign, Act 1 of the national action plan for equal rights and against anti-LGBT+ hate and discrimination, was launched on 14 October 2020. It aimed to reduce acts of discrimination and violence against LGBT people and to promote a greater acceptance of sexual minorities within society. Indignation in the face of discrimination, although it may stir up emotions, is no longer sufficient to change representations and behaviours. This is why the public authorities launched this campaign with a positive and inclusive approach.

A comprehensive communication system that reaches out to all French people

For three weeks, the campaign was rolled out across all channels (TV, online videos, poster, print, digital with the hashtag #JeFaisLaDifference [I’m making the difference]) as a concerted effort to reach out to all French people. A series of podcasts entitled “*Et alors?*” (“So what?”) was produced for distribution on social media. Testimonials in these podcasts discuss the journey that a family must go through to accept a family member as LGBT, showing that for some it may be quick and easy, while

it is long and complicated for others; but that it is essential in all cases.

The results of the 2017 Santé publique France Health Barometer

- The rate of major depressive disorders (MDD) in the past twelve months among lesbians, gays and bisexuals is twice that of heterosexuals, and the rate of suicide is three times greater.
- More than half (56%) of transgender people surveyed via social media in 2014 reported depression following a transphobic attack and 18% reported a suicide attempt.
- A family’s lack of acceptance of homosexuality/bisexuality plays a role in impairing the mental health of homosexual or bisexual cisgender women.
- The issue of sexual orientation is rarely addressed in primary care: 49% of female and 40% of male homosexuals have never talked about their sexual orientation to their doctor. This lack of communication is an obstacle to integrating the specific needs of LGBT people, for example in terms of screening and vaccination.
- One in four people said they had stopped seeing a doctor in the last twelve months for fear of experiencing discrimination because of their “transsexuality”.

Faced with intolerance, we’ll make a difference: the campaign

> THE PODCASTS



> THE VIDEO



> THE POSTERS



AWARD-WINNING PROJECTS IN 2021

- “Communication for all” guide: Prix Prescrire 2021 awarded by the website prescrire.org
- ASKIP: 2 awards from the website strategies.fr and 1 TOP/COM award
- HIV campaign: 1 award from strategies.fr and 1 TOP/COM award
- Sexosafe campaign: 1 TOP/COM award
- Coronavirus alert/information campaign: 1 TOP/COM award
- “EN 2-2” campaign: Prix d’or in the Effie awards

ADVANCING AGE

Over-60s could account for one-third of the population in 2040.

The current priority is no longer life expectancy but rather improved quality of life among older people. Strengthening the skills of older people helps to extend their autonomy and to support their health and quality of life at home for as long as possible.

Fall prevention plan: Active participation

In February 2022, Santé publique France was asked to participate in creating, setting the objectives and determining the priority focuses of the national action plan to prevent falls among older people.

With over 100,000 hospital admissions and nearly 10,000 deaths per year, falls in the elderly have physical, psychological and social consequences. Conducted in 2018, the ChuPADom survey showed that the average age of the inpatients hospitalised due to a fall was 84.5 years and that nearly 80% of falls occurred during the day. They occur

most frequently during washing (15%) or while walking (14%).

The government's goal is to reduce mortality from falls by 20% among people aged 65 and over by 2024. The agency worked on Axis 1 of this plan, "How to identify fall risks and raise the alert" and is responsible for Action 4: "Contribute to monitoring and evaluating the plan for the two national and regional objectives: to reduce fatal and debilitating falls in older people by 20% in three years". The various studies planned will allow the agency to assess effectiveness to this end.

Combating the accumulation of chronic disease

The accumulation of chronic disease or "multimorbidity" is a public health priority worldwide. Multimorbidity is an indicator of the population's health status that complements information from the surveillance of specific chronic diseases. The results of a Santé publique France study, published in *PLOS Medicine* in April 2021, show that accumulating at least two chronic diseases is already common in the population aged between 35 and 44 (~20%), with inequalities by sex and socioeconomic status. These results suggest that evaluation and management of multimorbidity can be beneficial from as early as 40 years of age and probably earlier in disadvantaged populations.

THE HEALTH OF PEOPLE APPROACHING RETIREMENT

As life expectancy increases, we need to assess whether additional years are lived in good health, particularly in order to adapt the provision of care and the social support available. A study by Santé publique France, based on the 2010 and 2017 Health Barometer surveys, indicates that the generation approaching retirement age is showing a greater deterioration in their health than previous generations. The population of workers with an average level of education seems to be particularly affected by these adverse developments.

Assessment of early dementia

Although dementia mainly affects the elderly, or even very elderly, 6 to 10% of dementia cases nevertheless occur between the ages of 60 and 65.

Santé publique France conducted a study using the French National Health Data System (SNDS, *Système national des données de santé*), which estimated a total of 24,000 cases of early dementia in France in 2016. "Our results suggest that preventive approaches targeting people in mid-life (40-55

years old) on cardiovascular risk factors, addiction-related disorders, and the prevention and management of traumatic brain injury could be studied as strategies to reduce or delay the incidence of dementia in younger people," says Laure Carcaillon-Bentata, Santé publique France's representative on "Healthy ageing and neurodegenerative diseases".

SOCIAL MARKETING

Prevention strategy and population-based approach



OVER
900,000
REGISTRATIONS FOR
"NO-SMOKING MONTH" SINCE
IT WAS CREATED IN 2016

_THE CHALLENGES

Prevention, health promotion and social marketing aim to promote messages and tools relevant to the target audience so that they voluntarily agree to change or give up a behaviour in their own interests and, more broadly, for the benefit of society as a whole. Because a change in behaviour is not imposed, the first step of social marketing involves a thorough understanding of the values, aspirations and limitations of the various target audiences, and it must take into account the social dimensions of population health. The second step consists of using different tools and techniques to achieve a change in behaviour.

The range of current communication tools and the growing role of digital usage makes individualised and contextualized responses possible and offers numerous opportunities for personalised interaction. The use of digital technology as a vector in prevention does not mean overlooking the need to strengthen fieldwork with partners in order for messages and behavioural aids to reach the public in their everyday environments.

_OUR REMIT

Santé publique France is in charge of social marketing in the areas of addictions, nutrition, mental health, sexual health and combating antibiotic resistance, in line with national public health plans. It also offers support to regional health agencies.

The agency deploys its programmes and actions using a population-based approach (for young children, young people, adults), ensuring that prevention is developed based on convincing or promising data and with strong links to studies on the burden of disease and social inequalities in health. It has a long-standing history of developing websites and digital applications on health prevention and promotion, which it tailors to meet user expectations.

A photograph of two women in a hallway, both wearing white face masks. The woman on the left has short brown hair, wears glasses, and a black top over a light-colored collared shirt. The woman on the right has long brown hair and is wearing a black top. They are both looking down at a document held by the woman on the right. The background shows a hallway with pink and blue walls and a bright light fixture.

MOBILISING THE SHARPEST EXPERTISE

OVERCOMING CANCER IS NO LONGER A PIPE DREAM, IT'S A BATTLE WE CAN ALL FIGHT TOGETHER



What are the challenges of the fight against cancer today in France?

Norbert IFRAH / Every day, more than 1,000 new cancers are diagnosed in France, including seven in children and adolescents, and there are more than 157,000 deaths per year. At a time when at least 40% of cancers are linked to exposure to preventable risk factors, the challenge is to build, together, the momentum to stop cancer mortality. By effectively fighting tobacco use, which alone causes 17 different cancers, by limiting alcohol consumption, improving diet and encouraging reasonable physical activity, we could eliminate more than one-third of cancers in France each year. In the United States, for example, where there has been a highly effective fight against tobacco use, the incidence of lung cancer is declining significantly.

How can we encourage more virtuous behaviours to meet the goal of the 10-year strategy to fight cancer, which is to reduce the number of preventable cancers by 60,000 per year by 2040?

Marie-Anne JACQUET / The scientific literature shows that a combination of regulatory measures and approaches focused on individuals or groups must be used. For example, overcoming tobacco use involves promoting



Marie-Anne JACQUET,
Deputy Chief
Executive of Santé
publique France

laws that restrict access to tobacco products, as well as targeted marketing and advertising, and making the environment unfavourable to smoking, and so on. But we also need to intervene early with children and young people so that they develop social and emotional skills that will prevent them from starting smoking. Communication and social marketing are powerful tools to help smokers; the annual "no-smoking month", which motivates smokers to attempt giving up, is the proof.

In addition to prevention and screening, what are the other focuses of the 10-year strategy?

N. I. / Although we cure 60% of cancers, we also see that, five years after cancer, two-thirds of the patients often live with debilitating sequelae. We must therefore work to reduce the sequelae and improve the quality of life of patients and former patients. We also need to fight cancers with a poor prognosis, such as many cancers of the digestive system and acute myeloblastic leukaemia. Finally, the last focus of this strategy, and certainly not the least important, concerns access to progress for all, regardless of their age, where they live or their socioprofessional category.

M.-A. J. / The most disadvantaged people are also the most affected by unhealthy behaviours. In light of this observation, we need to take an approach based on the principle of proportionate universalism: prevention is for all, but with more targeted efforts and assistance directed at those who need it most, i.e., the very poorest.

How do your actions complement each other?

N. I. / In addition to bringing our communications into line so we can

AT LEAST 40% OF CANCERS ARE LINKED TO PREVENTABLE RISK FACTORS. TOGETHER WE NEED TO CREATE MOMENTUM TO STOP THIS MORTALITY."



Prof. Norbert IFRAH,
President of the National
Cancer Institute

speak in synergy, we are carrying out many joint actions, including co-financing cancer registries, which are extremely important tools. We also worked together on alcohol expertise, and on the consultation on paediatric cancers.

M.-A. J. / As part of a structured partnership with the National Cancer Institute (*Institut national du cancer*), the French Cancer Registry Network (*Réseau français des registres des cancers*) and Lyon teaching hospitals (*Hospices Civils de Lyon*), we publish incidence and mortality trends for all cancers every five years. Santé publique France also participated in the implementation of the 10-year strategy for the fight against cancer, leading two measures, and co-steering many others with the National Cancer Institute.

Our institutions also work together very closely on communication and social marketing. At every level, we lead our work in an entirely complementary manner.

Listen
here



Cancer in mainland France: New survival data for affected people



New data for the period 1989–2018 update the estimates published in 2016 for a total of 73 types or subtypes of cancer.

Santé publique France, the French network of cancer registries, FRANCIM, the biostatistics-bioinformatics department at Lyon teaching hospitals and the National Cancer Institute finalised the update of survival data started in late 2020. This fourth edition included, for the first time, survival estimates for 22 anatomical or histological subsites such as gallbladder and bile duct cancers or glioblastoma, as well as estimates of survival 20 years after diagnosis. This phased publication concluded with the release of a summary, translated into

English, and a press conference organised by the four partners on 6 July 2021. For each of these cancers, the publications detail the five-year survival of those diagnosed between 2010 and 2015, the trends for one-, five- and ten-year survival of those diagnosed between 1989 and 2015, and the 20-year survival rate for those aged under 75 at the time of diagnosis made between 1989 and 2000, with follow-up of individuals until 2018 for each of the three indicators.

This work will be supplemented by a survival study in the French overseas departments and regions, followed by a survival analysis by stage at diagnosis.

Terminal transverse upper limb defect: Latest conclusions of the expert committee

The Scientific Expert Committee (CES, *Comité d'experts scientifiques*) on terminal transverse upper limb defect, set up by Santé publique France and the ANSES in May 2021, issued its latest conclusions on clustered cases seen in one municipality in Morbihan (Brittany), and in one in Loire-Atlantique (Pays-de-Loire). For the cluster identified in Morbihan in 2019, additional work did not identify exposure to a common risk factor among these pregnancies or any high-risk over-exposure affecting the environment around the families' homes. In Loire-Atlantique, while statistical analyses found two clustered cases for children born in the same municipality, the CES found no grounds on which to recommend further investigations.

In its conclusions, the CES confirms the need to strengthen the surveillance system for congenital anomalies in France and to improve knowledge of the risk factors in order to implement targeted prevention actions, in line with the roadmap of the Minister of Solidarity and Health.

Breast cancer screening: A decrease in take-up

New data on women's participation in the organised breast cancer screening programme was published in 2021.

Every two years, this programme invites women aged 50 to 74 to have a screening mammogram, along with a clinical examination of the breasts.

There is an organised national screening programme for breast cancer to detect it early and reduce its mortality.

The results published show that take-up of the screening programme has been steadily decreasing for several years, with a particularly significant fall in 2020 due to the COVID-19 pandemic.

In 2020, 2.5 million women had a mammogram through the screening programme, which equates to a take-up of 42.8%. This was a significant decrease, which applied for all age groups and in all regions of mainland France as well

as in all the overseas departments and regions. This was probably due to several factors related to the COVID-19 health crisis: temporary closure of centres during the first lockdown for varying durations depending on the region that lead to interruptions in invitations and second readings, closure of radiology offices and lower activity on reopening due to the application of the necessary health measures.

BURDEN OF DISEASE

and its determinants,
effectiveness of interventions,
and return on investment in prevention



REDUCING THE BURDEN
OF DISEASE REQUIRES
THE BEST POSSIBLE DATA
IN ORDER TO ESTIMATE
ITS SCALE AND TO
EFFECTIVELY PROMOTE
HEALTH-FRIENDLY
BEHAVIOURS AND
ENVIRONMENTS.”

THE CHALLENGES

Given the ageing population and the increasing number of diseases that no longer necessarily lead to mortality, public health policies should now be structured on knowledge about the population's health status. This knowledge is gained through estimating the burden of disease using indicators that take into account the number of healthy life years lost due to morbidity, disability and mortality. These indicators provide the means to monitor changes in population health over time, helping to prioritise public health issues and to assess public policies in terms of effectiveness and efficiency.

Estimating the burden of disease, using a continuum between observation and action, is a key issue. This approach means that the most promising health prevention and promotion interventions can be identified and deployed at the most suitable point in the different stages of life. Routinely considering aspects affecting the population and region, social inequalities in health or the impact on mental health is also an important factor in measuring the effectiveness of actions undertaken.

OUR REMIT

Reducing the burden of disease requires the best possible data to estimate its scale. Santé publique France produces indicators, by local area, for a range of chronic diseases including cancers, cardiovascular diseases or diabetes. The indicators are based on surveillance carried out using data from different registries, surveys and the SNDS. Concerning the measurement of disease burden, the agency's objective is to incorporate calculations for the health gains of prevention actions and possibly the cost reductions generated by these interventions.

Furthermore, the agency is conducting studies with a multidisciplinary approach, promoting strong interactions with public health research teams, particularly in health economics. European and international partnerships are also being established or strengthened in order to bring together expertise and experience.

Cardiovascular diseases and suicides, the leading causes of maternal deaths in France

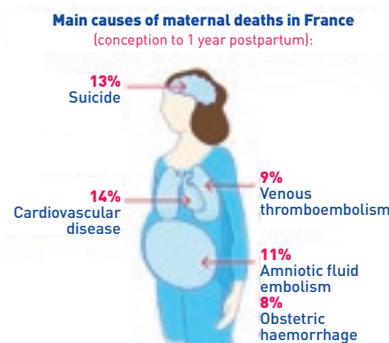
Every year in France, 50 to 100 women die from a cause related to pregnancy, delivery or the postpartum period, which equates to one woman every four days on average.

In early 2021, Santé publique France and INSERM published the 6th report from the National Confidential Surveys on Maternal Mortality with results for the period 2013–2015. This national survey reveals that cardiovascular diseases and suicides were the leading causes of maternal deaths in 2013–2015. The authors of the report highlighted that the majority of deaths were preventable and conveyed the improvements needed in regard to

certain aspects of the care pathway through 30 key messages. The areas targeted had been repeatedly identified in the pathways of the deceased women. In general terms, these included:

- The importance of a non-obstetric medical examination of the pregnant woman, and of checking for any history of psychiatric problems or addiction, as well as indications of social vulnerability.
 - Assessment of the risks of complications before conception and during early pregnancy, which should lead to a personalised pregnancy management plan.
- The National Expert Committee on Maternal Mortality (CNEMM, *Comité national d'experts sur la mortalité maternelle*)

recommends that post-mortem examinations should be routine in the event of maternal death without an identified cause.

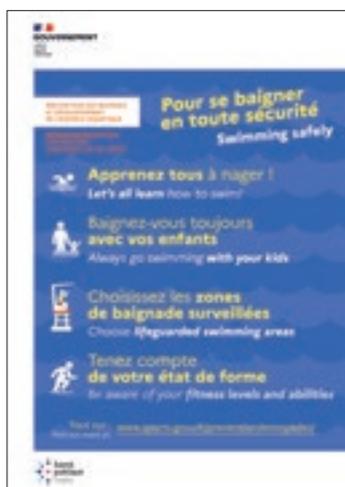


“DROWNING ACCIDENTS 2021” a survey to improve prevention



During the summer, surveys of drowning accidents are carried out to identify all incidents, describe the characteristics of the victims, what they were doing and the circumstances surrounding these drownings for prevention purposes. The 2021 survey on drowning accidents was conducted between 1 June and 30 September 2021 in metropolitan and overseas France with the support of the ministries of health, the interior, sports and ecological transition.

Accidental drownings happen in all sorts of places and affect all ages, although they are more prevalent among very young children and older people. It's never too late to start or learning to swim, or take some refresher lessons, especially after a long time of not swimming. As part of its prevention mission, the agency, together with its partners, raises awareness on drowning risks through targeted communications and advice.



Swimming: public information on safe practices

1,480

DROWNING ACCIDENTS REPORTED BETWEEN 1 JUNE AND 30 SEPTEMBER 2021 (including 394 with fatal outcomes)

The Lacq industrial basin: Mortality and feasibility of morbidity analysis

In November 2021, Santé publique France published the results of two studies concerning the Lacq industrial basin: one on mortality and the other on the feasibility of a morbidity analysis.

These studies followed a referral from the Ministry of Health requesting the agency to comment on the possibility and feasibility of implementing epidemiological surveillance around the Lacq basin (64).

The results of the mortality study did not show an excess risk of death in the closest residential areas. Nevertheless, there are still questions concerning respiratory and circulatory diseases.

At the same time, the agency carried out an exploratory study to evaluate the feasibility of a morbidity study and to identify the pathologies of interest to be included in this study. The short-listed indicators were respiratory and cardiovascular diseases and diabetes. The next step is the development of a detailed study protocol in consultation with an expert committee.

HIV: Combating **discrimination** related to HIV/AIDS



The medical, economic and social consequences of the human immunodeficiency virus (HIV) epidemic are significant. Prevention and epidemiological surveillance have a crucial role in tackling these various health impacts.



ONLY

60%

OF RESPONDENTS WERE AWARE OF THE PREVENTIVE EFFECT OF ANTIRETROVIRAL THERAPY, WHICH IS STILL NOT ENOUGH

(ERAS, 2021)

Epidemiological monitoring and a greater understanding of the groups most exposed to HIV (see box opposite) have put Santé publique France in a better position to adapt its prevention campaigns.

HIV-positive people are still being discriminated against too often because of their serological status. There is a lack of awareness, even among the populations most affected by HIV, of the fact that today effective antiretroviral treatments mean this group has a life expectancy identical to that of HIV-negative people, without the risk of transmitting the virus even during unprotected sex.

To remind people that today, with treatment, an HIV-positive person can live in good health, have a full sex life and have children, Santé publique France launched the campaign: "Living with HIV is living, first and foremost". The campaign foregrounds a wide variety of couples, both same-sex and opposite-sex, young and older, who

FOCUS

A survey about people's relationship to sex (ERAS, *Enquête rapport au sexe*) has been conducted through an online questionnaire every two years since 2017. Its objective is to better understand HIV prevention strategies for men who have sex with men.

The results help to adapt discourse around prevention and to encourage the people concerned to take ownership of the various tools put in place. Over the years, the agency has remained committed to adapting the prevention offer to the needs expressed.

represent the target audience (see posters above). It is intended to connect with as many people as possible, paying particular attention to the populations most affected by HIV (men who have sex with men and migrants from sub-Saharan Africa), as well as to HIV-positive people.

Evaluating and promoting **vaccination**



Vaccination calendar

Vaccination is the most effective public health action in the fight against infectious diseases. Santé publique France carries out actions to assess the vaccination policy in France, such as monitoring vaccination coverage and the impact of vaccination on the dynamics of the diseases targeted.

The agency also produces data on vaccine perception and practice as well as public adherence.

In coordination with the French Ministry of Health, Santé publique France aims to promote this simple preventive act during European Immunization Week. Finally, the agency provides a number of resources to boost understanding among the general public and health-care professionals: explanatory brochures, vaccine calendar postcards, etc. For more information, visit vaccination-info-service.fr

13 November terror attacks: Psychological impact of the trauma five years on

Santé publique France collected the results of the second phase of the Post-Attacks Health survey (ESPA, *Enquête de Santé publique Post-Attentats de novembre 2015*), launched in 2020 to find out, five years on from the attack, how the psychological impact of the trauma was affecting people and whether treatment had been sought.

Following the terror attacks of 13 November 2015, Santé publique France launched the first phase of ESPA, a major epidemiological survey, in 2016. Nearly 1,400 people took part. The results show a significant impact on the mental health of the people involved. Five years on from the attacks, it was important to find out how this impact had changed. For this reason, Santé publique France launched the second phase of the survey between 16 November 2020 and 6 April 2021, in partnership with Université Paris 13. This project is part of the 13 November programme, a twelve-year (2016–2028) cross-disciplinary programme with a vast scope, funded in particular through investment from the French National Research Agency (ANR, *Agence nationale de la recherche*) and with scientific support from CNRS and INSERM.

The results from this second phase of the ESPA survey will lead to a better understanding of the factors associated with persistent psychological symptoms, as well as those associated with improvement or deterioration. The survey results also allow data



analyse on the use of healthcare services reimbursed by social security for the subgroup of participants who agreed to give their social security number.

ESPA report, phase 2

A campaign and measures to celebrate a tobacco-free life



Poster promoting life as a non-smoker

Launched on World No-Tobacco Day on 31 May 2021, the new Santé publique France campaign makes a tobacco-free life a desirable goal.

The denormalisation of tobacco has begun, as evidenced by the decline in consumption observed in mainland France between 2014 and 2019. To accelerate and amplify the movement, and with particular support from the National Health Insurance's anti-addiction fund, Santé publique France launched its new campaign "Welcome to a tobacco-free life". Through a film celebrating different victories in giving up smoking, tobacco-free life is presented as a desirable norm, and invites the viewer to join the 50 million French people who do not smoke.

This campaign was also an opportunity to unveil the new visual identity of the service for help and information on stopping smoking, Tabac Info Service, which is more modern and anchored in the daily life of users.

No-smoking month: an essential project

For the sixth consecutive year, it was in partnership with the Ministry of

_MAJOR DISPARITIES ACROSS THE COUNTRY

In February 2021, Santé publique France published new data on mortality attributable to smoking in 2015 by region, which confirmed that there are significant disparities across the country and emphasised the need to continue prevention actions to encourage smoking cessation.

For the first time, the data published in the regional public health bulletins provide detailed regional estimates for the causes of death in which tobacco use has an established role.

Health and the National Health Insurance Fund that No-Smoking Month was launched in November 2021. Data from the Santé publique France Health Barometer survey show that there is a strong public appetite for this project: attempts to stop smoking in the last quarter of the year attributable to No-Smoking Month have been on the rise since the campaign began in 2016.

In 2021, Santé publique France strengthened its service and enabled all participants to easily access a consultation to help with stopping. On social media, the founders of Wanted Community rose to the challenge and put out messages to their community, which is built around mutual assistance and social cooperation and brings together nearly one million participants.

Notifiable diseases:

Addition of West Nile Virus and TBE Virus infections

Since 12 May 2021, West Nile virus infection (or West Nile fever) and TBE (tick-borne encephalitis) infection have been included in the list of notifiable diseases.

West Nile virus infection

This arboviral disease transmitted mainly by mosquitoes of the Culex genus is a zoonosis in which birds are the reservoir.

Its severity lies in neurological complications affecting 1% of infected people and the risk of transmission through human products (transplantation and transfusion). In recent years, its transmission in Europe has spread and intensified, driven by environmental changes.

In France, an unexpected epidemic occurred in 2018, mainly located in the city of Nice (06), where 22 cases were detected. 2018 was characterised by an exceptionally large epidemic of West Nile virus infection in Europe. In this context, since it presents an epidemic

risk in France, mandatory declaration has meant expanding the existing epidemiological surveillance system.

TBE virus infection

TBE virus infection is transmitted by tick bite, or more rarely through the consumption of dairy products made from the milk of infected animals. After a first non-specific phase combining fever, muscle and joint pain, about one-third of patients have a second phase of neurological involvement, a few days after an apparent recovery. This second phase involves neurological signs of meningitis, encephalitis or myelitis and requires hospitalisation.

TBE infections have been increasing over several years in Europe, with the virus being detected in countries or regions that were previously spared, and an increased incidence in historically at-risk areas. A vaccine exists against TBE infections but is only recommended for travellers to high-incidence countries.

In France, cases, some of which were imported, were diagnosed very occasionally until the mid-2010s. In 2016, a cluster of cases was identified in Alsace. Between 2016 and 2020, three cases were identified in the Forez mountain range of the Auvergne, an area where the virus had not been previously found. Then, in 2020, 43 cases were identified in Ain, with a link to the consumption of raw milk goat's cheese. 26 of these involved neurological signs.

This episode was the first one of food origin identified in the Ain department. The surveillance of these two viruses follows the "One Health" approach, combining animal and entomological surveillance with human surveillance.

Antibiotic consumption: Encouraging results

To mark World Antimicrobial Awareness Week and European Antibiotic Awareness Day in November 2021, Santé Publique France and its partners published 2020 data on antibiotic consumption and resistance.

The data from the SNDS, analysed by the agency, show that the consumption of antibiotics in 2020 in the community medicine sector fell by around a further 17.0% in defined daily doses (DDD) and by 18% in number of prescriptions from the levels expected for 2020, based on projections of an already downward trend over the previous ten years.

With a total of 44.4 million prescriptions of antibiotics in 2020, there were 9.7 million fewer prescriptions than expected. This decrease is observed in all age groups regardless of sex, and is more pronounced in children under 4 years of

age. It was observed regardless of the prescriber's specialty, even including dental surgeons, who had been regularly increasing their numbers of prescriptions up to 2019.

An educational, human health-focused infographic was produced. It points to the significant decrease in antibiotic consumption observed in 2020, contrary to previous years. On the other hand, it also shows the dramatic reduction in the use of care and in common winter illnesses and reminds us that the behaviours and measures that we began during the COVID-19 pandemic protect us and protect our loved ones.

"In parallel with the annual summary of antibiotic consumption in the community and in hospital, we are working with Santé publique France on the measures to be put in place to limit a risk of antibiotic resistance related to livestock farming. We are also participating in research projects such as the 'Animal Health Network: Surv1Health', the aim of which is to assess how collaborations between antibiotic resistance monitoring systems are working and to identify avenues for improvement from an integrated control perspective."

Jean-Yves MADEC,
scientific director of the antibiotic
resistance unit at ANSES

OVERSEAS FRANCE: ACTIONS THAT REFLECT THE NEEDS OF THESE TERRITORIES

Far from European France, the overseas territories differ in terms of their socio-economic and cultural characteristics and their exposure to natural disasters, environmental health challenges and climate change, and their disease burden, which includes frequent arboviral disease epidemics.

Dengue fever epidemic affecting the Antilles and Réunion Island



The Antilles had to face dengue fever epidemics between 2019 and 2021 that were unprecedented in their duration. In Guadeloupe and Martinique, these epidemics have been the longest ever recorded since the surveillance of dengue fever in these territories began.

With more than 33,000 clinically suspected cases reported in Martinique and nearly 24,000 in Guadeloupe, they were second only to the epidemics of 2010 in terms of numbers. These epidemics were concomitant with the COVID-19 epidemic

and caused significant tensions in laboratories performing RT-PCR tests for both COVID-19 and dengue fever. During the epidemic in Martinique, 47 serious cases of dengue were hospitalised in an adult or paediatric intensive care unit and 17 deaths, occurring in a hospital or at home, were reported. In Guadeloupe, the epidemic was less severe, with three serious cases reported, including two deaths. Saint Martin recorded only one serious case followed by a death. In Saint Barthélemy, no serious cases were reported.

Four territories, three different serotypes

Although geographically close, the dengue epidemics in these four territories were caused by different dengue virus serotypes: predominantly DENV-1 in Saint-Martin and Saint Barthélemy, DENV-2 in Guadeloupe and DENV-3 in Martinique.

In Réunion Island, successive waves of increasing magnitude and severity have been observed since 2018. With more than 30,000 cases confirmed by laboratory tests in 2021 and more than twice that number of clinically suspected

cases, the epidemic has been the largest since 2018. In 2021, only the DENV1 serotype circulated. The same trends can be seen in the activity of emergency departments and within hospitals.

The proportion of paediatric cases was increasing and accounted for 15% of cases in 2021 (compared to 8% in 2018). The proportion of severe cases also increased (27% among hospitalised cases in 2021, as against less than 20% previously). Cases were primarily defined as severe if there was organ damage (renal or hepatic impairment). In 2021, atypical forms were also reported with rare but severe post-dengue maculopathy. Mortality remains low.

These epidemics show that these territories remain exposed to dengue viruses and arboviral diseases in general. The consolidation of surveillance systems, particularly in hospitals, must remain a priority in the years to come.

97,000

CASES OF DENGUE
FEVER IN THE ANTILLES
AND LA RÉUNION

ADAPTING TOOLS TO THE SPECIFIC FEATURES OF THE TERRITORIES

3 QUESTIONS FOR

Laurent FILLEUL,
coordinator and head of the Overseas
Department of Santé publique France



COVID-19: Report on the dynamics of the epidemic in relation to containment measures



The French overseas departments and regions (DROM) were all affected by the COVID-19 epidemic, but with different dynamics and time frames.

The overseas territories present certain characteristics that are specific to their geographical location but also to their populations.

In the context of managing the COVID-19 epidemic, multiple containment measures were introduced in the mainland and then rolled out locally from June 2020. At the request of the General Directorate for Health, the agency carried out a descriptive analysis regarding the impact of containment measures on the incidence rates of confirmed cases and hospital admissions, for each territory.

All of the DROM were included (Guadeloupe, French Guiana, Martinique, Mayotte and Réunion Island) as well as two overseas collectivities (Saint Barthélemy and Saint Martin). The exploratory study presented in this report seeks to describe the evolution of the COVID-19 epidemic in relation to the containment measures. It appears that only strong measures taken relatively early were able to significantly reduce viral circulation and its health impact: generalised measures (lockdown, curfew), reducing social interactions and activities without masks, and limiting the flow of people travelling for virology examinations.

What are the main environmental issues in the overseas territories?

The problems are not the same everywhere. In the Antilles, for example, we have a major public health issue with chlordecone, a product historically used in banana cultivation that has polluted soils. In French Guiana, environmental health problems are caused by gold digging with mercury polluting the river. Epidemics of arboviral diseases are also very common. Natural disasters, such as cyclones, also happen in these territories. They can have a direct or indirect effect on health. In Réunion Island, for example, after one cyclone, we had an increase in emergency department visits due to inhabitants sustaining injuries while carrying out repair work.

How does the agency roll out the actions implemented in mainland France?

Santé publique France's remit involves rolling out all its actions in the overseas territories, whether in terms of monitoring, improving knowledge, evaluating and impacting public policies and implementing preventive actions. We need to adapt these actions and the tools to suit the specific features of these territories. For this reason, in 2020, the agency created a unit dedicated to overseas territories, based in Bordeaux (Santé publique France Nouvelle-Aquitaine). It coordinates all cross-cutting actions common to these regions.

What role do Santé publique France's surveys play in these territories?

Every time a study is launched in mainland France, we need to ask ourselves the question: what can we gain by applying it in the overseas territories? Is it feasible? For example, from 2014, the DROM were integrated into the Santé publique France Barometers. For Mayotte, the survey method needed significant adaptation, which gave rise to the Unono wa Maore survey. This first Health Barometer has just been carried out in Saint Pierre and Miquelon.

DIGITAL TECHNOLOGY IN PUBLIC HEALTH



800

OPEN DATA INDICATORS
ON GÉODES, THE
MAPPING OBSERVATORY
OF EPIDEMIOLOGICAL
INDICATORS PRODUCED BY
SANTÉ PUBLIQUE FRANCE

_THE CHALLENGES

Digital technology in public health refers to the use of digital technology for data acquisition, processing, analysis and reporting. Digital technology provides access to real-time information and provides modelling capabilities that are useful for decision-making.

It also promotes the use of digital interfaces to communicate with both the general public and decision-makers.

The COVID-19 crisis has been a driving force for innovation to accelerate the implementation of the digital tools needed to manage a large-scale epidemic, while shedding light on the main issues to be tackled.

It highlighted the importance of reactive, comprehensive and evolving epidemiological surveillance and the provision of indicators accessible to all audiences. It also underscored the need for large databases to be able to communicate with each other to improve understanding of the challenges of the crisis and to share information with all decision-makers, professionals and the general public through routine publication as open data.

Finally, it reminded us that it is crucial to factor in ethical issues concerning the anonymisation and security of health data.

_OUR REMIT

Santé publique France is developing a methodological framework and quality processes to manage data from its source through to its use for public health projects, which entails a need to increase data processing and calculation capacities. In 2020, the introduction of systems such as SI-DEP laid the foundation for a robust surveillance system built on digital technology, which needs to be continued into the future and extended to other biological tests.

The agency also continues to use the open data approach, started in 2019 with the implementation of the Géodes platform. Whether used in the collection and analysis of indicators, information systems, or to enhance responsiveness and communication, this strategy draws on the experience gained during the health crisis to expand progress towards monitoring other diseases that are key to the health of populations.

Towards the European health data space

Santé publique France and the Health Data Hub are joining the federated European health information infrastructure, DIPoH. Its creation is supported by around twenty European organisations.

Distributed Infrastructure on Population Health (DIPoH) is the extension and perpetuation of the European joint action on health information (InfAct, Information for Action) launched in 2018 by the European Commission. The DIPoH will improve integration and strengthen information networks and health data in Europe, through services such as the creation of a European metadata catalogue and training. The DIPoH will also facilitate cooperation and the exchange of good practices between European countries regarding the collection, exchange, evaluation, accessibility and reuse of health data.

Following the efforts of Santé publique France and the Health Data Hub alongside other participating European countries, this project is a candidate for the European Strategic Forum on Research Infrastructures (ESFRI), whose objective is to develop research infrastructures within the European Union.



Sharing data to support research

Created in 2019, the Health Data Hub platform brings together 56 stakeholders, including Santé publique France, largely from the public authorities (CNAM, CNRS, HAS, etc.). It facilitates the sharing of health data from a wide variety of sources in order to encourage research and aims to respond to the challenge of using algorithmic treatments (known as “artificial intelligence”).

Santé publique France and the Health Data Hub are also working with other French partners, such as the Digital Health Agency (ANS, *Agence du numérique en santé*) and INSERM on the TEHDAs project coordinated by the Finnish innovation agency. The objective is to develop a legal framework and best practices for data exchange. In addition, the DIPoH and TEHDAs projects are contributing to the creation of the European health data space and helping to promote the development of digital technologies in public health. The goal is always to improve the health of populations.

Geodes, the real open data tool



Geodes is the mapping observatory of epidemiological indicators produced by Santé publique France. Available since 2019, it is based on various monitoring and investigation systems. It responds to a strong desire for transparency and modernity by allowing free and simplified access to many health indicators for highly localised areas, ranging from the region to the department, and even smaller areas in the near future.

It is possible to submit real-time queries on diseases and health determinants across France. Geodes offers the potential to look at the health status of the population in one region and to compare it to others.

The existing indicators in the observatory are continually updated and new indicators are regularly proposed. In 2021, new indicators for excess weight and obesity, cardiovascular and neurovascular diseases, tuberculosis and even asthma and chronic obstructive pulmonary disease (COPD) were added.



OPENNESS TO SOCIETY

ON SANTÉ PUBLIQUE FRANCE'S APPROACH OF OPENNESS AND DIALOGUE WITH SOCIETY

The governance of Santé publique France is based on a founding principle of openness and dialogue with society. Stakeholder and civil society participation helps build new dynamics of trust and enhances the quality of scientific work. It takes various forms that adapt to changing expectations and practices.

How is Santé publique France's approach of openness and dialogue with society delivered and prioritised?

Openness to society is seen in particular from the perspective of the links between science, public health and society. It questions how the interface between Santé publique France and society works, and also more broadly fosters a dialogue with stakeholders and the population based on the processes that produce its expertise, in the sense of the charter of expertise, and its ability to integrate multidisciplinary approaches.

This openness strategy is in line with the principles of the charter for openness with society, which we have signed with our partners: "to build a shared understanding of the complex challenges of high-risk situations with society". Its application is reflected in the work carried out within our divisions (especially the Steering Committee), as well as in our participatory approaches.

What are the objectives of the activities carried out in this framework?

The aim is to make working processes open to questions and external contributions. By doing this, we aim to strengthen the robustness of the agency's work through the long-term exchange of information and the dialogue we have with representatives from civil society and our partners.

Can you give some concrete examples of your openness process?

It unfolds in a variety of ways. What comes to mind particularly is our reciprocal presence with the National Health Conference, with Santé publique France being a member of the Conference, which in turn holds a seat on our Board of Directors.

We also have joint construction work with stakeholders nationally and regionally within committees set up by the agency, or by other regional organisations: experimental project support committees (CAT, Comités d'appui thématique à titre expérimental) and agency interface committees, site monitoring committees, etc.

Some examples of citizen consultation and participation from 2016 are the secretariat for citizen consultation on vaccination that we set up, and the workshops for health professionals and/or citizens as part of our work on the Lacq basin (64). The "First 1,000 Days" website is also a good example of a resource that was designed together with the target audience. Finally, there is the entire strategy for open access to the data produced by the agency, by releasing indicators and their algorithms (Géodes, data.gouv.fr, TousAntiCovid).



Alima MARIE-MALIKITÉ,
*Director of the
Communication and
Dialogue with Society
Department,
Santé publique France*

How do you assess the impact of your approach?

The agency benefits from external oversight from the members of the Steering Committee and the Board of Directors, humanities and social sciences specialists, partners, as well as discussions at its annual meetings.

The Steering Committee (COD, *Comité d'orientation et de dialogue*) is the agency's fourth governance body, created in 2016. Its members are drawn from the general public, with each appointment being non-assignable and given based on an individual's profile and experience. Through the COD the agency can listen to the audience it serves in order to better anticipate, understand and factor in their needs and expectations, adjusting its strategy and the focus of its programmes accordingly.

DIALOGUE WITH SOCIETY

The agency's governance is based on a founding principle of openness and dialogue. It is structured around four boards: the Board of Directors, the Scientific Advisory Board, the Ethics and Professional Conduct Committee and the Steering Committee.

The Board of **Directors** (CA, Conseil d'administration)

28 members consisting of national and local elected representatives, State representatives, institutional partners, representatives from civil society and the medical world and employees of the agency. They are appointed for a period of four years, and can be reappointed once.

"The remit of the Board is to oversee the continuity of our organisation, to support it to modernise and deliver its work programme, and to foster a pro-public health momentum alongside its chief executive. Through its declarations, it sets the agency's general areas of focus, including the work programme and the annual reports. It is the guardian and the foundation of the agency's general policy and strategy. The Board is very fortunate in its highly committed members, who have a wide variety of professional and personal backgrounds. I would like to thank them very warmly. They stand by my side to play their parts in endorsing and supporting the agency's policies.

I want us to embody this diversity, respecting each point of view and striving to find the common ground that will mean we can uphold, or perhaps expand, the draft declarations made by the executive management."



Jean-Jacques COIPLET,
Chief Executive of the Pays de la Loire ARS,
interim Chair of the BoD

Lists of members and substitutes as of 31/12/2021

Thierry ARNAUD, Anne AUDIC, Catherine AUMOND, Joël AVIRAGNET, Katia BAUMGARTNER, Jean-Louis BENSOUSSAN, Catherine BERNARD, Martine BERTHET, Marie-Agnès BESNARD, Gilles BLOCH, Marie-Caroline BONNET-GALZY, Karine BOQUET, Sandrine BROUSSOULOUX, Nicolas BRUN, Alain CHABROLLE, Marie CHANCHOLE, Jean-Jacques COIPLET, Florence CONDROYER, Sandrine DURON, Élisabeth ELEFANT, Albane GAILLOT, Véronique GUILLOTIN, Amel HAFID, Nadine HERRERO, Émilie HILLION, Martine JOLY, Benoît LAVALLART, Corinne LOCATELLI-JOUANS, Jean-Paul LOTTERIE, Isabelle MAINCION, Timothée MANTZ, Danielle METZEN, Brigitte MOLTRECHT, Rayan NEZZAR, Saïd OUMEDDOUR, Anne PAOLETTI, Mathilde PASCAL, Dominique POLTON, Isabelle POUJOL de MOLLIENS, Alain PRUNIER, Mikael QUIMBERT, Gérard RAYMOND, Benoît ROGEON, Philippe ROUANET, Roger SALAMON, Prof. Jérôme SALOMON, Rémy SLAMA, Béatrice TRAN, Aymeric UNG, Amélie VERDIER.

Scientific Advisory Board (CS, Conseil scientifique)

27 members, including 13 international figures, were appointed on 9 April 2021 for a period of 4 years (reappointment possible) by decision of the Chair of the Board of Directors.

"I would like to congratulate the agency on its decision to set up an International Scientific Advisory Board. Seeking the advice of such a diverse group demonstrates courage and trust. The CS also includes French experts who are leaders in their fields and a wide range of well-known and independent experts. Our goal is to help the agency design and deliver its work programme founded on the soundest scientific and public health information we have. Faced with many difficult choices, the CS can help the agency to make the right decisions based on the priorities set by its programming. Over the next four years, the CS hopes to forge even closer links with the agency. By sharing ideas and expertise, we will help identify possible developments in education and training. Finally, we want to help the agency to take its place on the world stage, as much of its work can contribute to international efforts in the field of public health."



Prof. John NEWTON,
Director of Public Health Analysis, English
Office for Health Improvement and Disparities,
Chair of the CS

Lists of members and substitutes as of 31/12/2021

Nelly AGRINIER, Patrizia CARRIERI, Bernard CAZELLES, James CURRAN, Freia de BOCK, François DESBIENS, Emmanuel DEVOUCHE, Carlos DIAS, Jean-François ETARD, Fabrizio FAGGIANO, Sandro GALEA, Jean-François GUEGAN, Céline GUILLAUME, Gérard HASTINGS, David HEYMANN, Johanna LEPEULE, Pedro MARQUES-VIDAL, Prpf. John NEWTON, Mathieu PERONA, Walter RICCIARDI, Benjamin ROCHE, Séverine SABIA-LE BARBER, Priscille SAUVEGRAIN, Annemiek VAN BOLHUIS, Marion VORMS, Jukka VUORI.



Ethics and Professional Conduct Committee (CED, Comité d'éthique et de déontologie)

7 members were appointed on 17 March 2021 for a period of four years by decision of the Chair of the Board of Directors.

The CED oversees compliance with the rules of ethics and professional conduct applicable to the agency, its staff and occasional partners involved in the agency's work, who could be induced by funding and partnerships with private organisations. Its work embodies the desire for a strong interface with the National Advisory Committee on Ethics (CCNE, *Comité consultatif national d'éthique*).

“While the primary function of the CED is to offer input to Santé publique France's representatives who consult it, there is also a more general role of supporting and fostering the development of a culture of ethics within the agency. Over the coming years, members of the CED will be involved in a series of structural projects for the agency, like the 'Ethics and Public Health' seminar, due to begin in autumn 2022, and which aims to raise awareness among agents of the ethical challenges of their practices. They will also continue the work begun on identifying and analysing methodologies for the ethical evaluation of public health projects, programmes and activities.”



Grégory AIGUIER,
interim Chair of the CED

Lists of members and substitutes as of 31/12/2021

Grégory AIGUIER, Annagrazia ALTAVILLA, Jacqueline DELIAU-LAGREE, Michel DESY, Didier DREYFUSS, Alain FONTAINE, Nicolas LECHOPIER.

Steering Committee (COD, Comité d'orientation et de dialogue)

19 members were appointed on 17 March 2021 for a period of four years (reappointment possible once) by decision of the Chair of the Board of Directors.

Members are drawn from the general public from all regions, and they have experience with the different audiences the agency serves. Through the COD the agency can listen to all of its stakeholders in order to better anticipate, understand and factor in their needs and expectations, adjusting its strategy and focus of its programmes accordingly.

“The COD ensures that society is given the opportunity for quality dialogue and participation in the issues, risks, best practices and the development of knowledge together with the experts. It works towards public health being recognised as a common good, shared by everyone. It reviews the agency's programming to make sure that no important subjects are forgotten. The 2021–2024 COD advises and supports Santé publique France in its actions, including the MobCo project (mobilising knowledge about COVID-19 vaccination among populations in precarious living conditions), studies obstacles to public health messages 'from A to Z', and intends to address digital sovereignty, messages about alcohol, obesity, mental health, misinformation and environmental risks.”



Éric VINDIMIAN,
Chair of the COD

Lists of members and substitutes as of 31/12/2021

Charline BARGHANE-MILLOT, Pierre BENOIT, Marie-Hélène DECAMPO, Annabel DESGREES-DU-LOU, Mathilde DESSAUX-LECOMPTE, Blandine ESQUERRE, Pierrick FOSTIER, Stéphane KORSIA, Thomas LAURENCEAU, Maud LEGUSTIN, Solange MENIVAL, Smadja PEIFFER, Guenaël RODIER, Marie-Pierre SAMITIER, Benoît SAUGERON, Éric VINDIMIAN.

A EUROPEAN AND INTERNATIONALLY-FOCUSED STRATEGY

The agency has recognised expertise globally and, in close partnership with its counterparts abroad, contributes to a whole range of studies and consultations led by European and international organisations.

Through the IANPHI, there is a strong commitment to strengthen national public health capacities around the world

The International Association of National Institutes of Public Health (IANPHI) brings together 110 members from 95 countries. Following approval by the Executive Board of the association, on 7 October 2021 Prof. Geneviève Chêne and Prof. Duncan Selbie, President of IANPHI, renewed the agreement for Santé publique France to host the association's secretariat and continue

contributing to the secretariat's projects for four years. Anne-Catherine Viso, Deputy Director of the Scientific and International Office at Santé publique France, succeeds Jean-Claude Desenclos as Secretary General. At the association's general meeting in December 2021, Geneviève Chêne was elected as a member of the Executive Board for three years.



"IANPHI is a strong voice for the National Public Health Institutes (NPHI). Given their unique experience and many scientific experts in public health, our NPHI should be in a position to influence all public health issues both nationally and internationally. However, their role, remit and values, and their importance, are not sufficiently widely known and recognised. Through IANPHI acting as a federation, or a kind of 'collective' of NPHI, it has the capacity to advocate for each country to have a NPHI."

Prof. Geneviève CHÊNE,
Chief Executive of
Santé publique France
and member of the Board
of Directors of IANPHI

A webinar with WHO to promote the core functions of public health bodies



The WHO and many countries have carried out studies on the added value of core public health functions as a reference framework for an integrated approach to health systems. In the midst of a reflection on how to reform public health in France, Santé publique France organised a webinar with the WHO on best practices in delivering these core functions to improve the population's health status and protect it from health risks.

The agency's main partners, the DGS and the HCSP, the other health agencies and the HAS were invited to this seminar.

PHIRI: A European project on the impact of COVID-19

Santé publique France is involved in the European "POPULATION Health Information Research INFRASTRUCTURE" (PHIRI) project. The agency is responsible for delivering a broad and systematic literature review on the aetiological and prognostic roles of multimorbidity, frailty and socio-economic circumstances on the risk of serious short- and long-term health impacts due to COVID-19. This work is being conducted with partners from five European countries.

A cross-border observatory for health in eastern France

The purpose of the Observatory for Health, Surveillance and Alert Data in the border area of the Upper Rhine basin and the Grande Région (comprised of areas of Germany, Belgium, France, Luxembourg and Switzerland) is to provide citizens, elected officials and health authorities of Grande Région partner states with information that can be compared and interpreted to use for decision-making on population health, particularly with regard to the risk of epidemic. It also puts in place reciprocal alert mechanisms and common response methods.

Nutrition: Joint actions

Santé publique France is a member of the Scientific Advisory Board and steering committee of Nutri-Score, which are European governance bodies created in 2021 to facilitate the circulation of the label in the different countries. The agency also contributed to the Best ReMaP report, which lists the measures governing the exposure of children to advertisements for fatty, sugary and salty products in European countries.



SUPPORTING CHAIRS THAT PLAY A ROLE IN SPREADING THE REACH OF PUBLIC HEALTH

Through its support of various chairs, whether funding or through joint works, Santé publique France intends to contribute to the development and progress of science and culture. This promotes research and the dissemination of its results through teaching, mandates and publications all while contributing to France's reach on an international level.

In 2022, the partnership between the Institute for Public Health, Epidemiology and Development (ISPED, Institut de santé publique, d'épidémiologie et de développement) and Santé publique France was renewed. This focus of this partnership is two challenges, for which the ISPED Prevention Chair is responsible: the challenge of training for public health stakeholders in line with Santé publique France's work and programming and the challenge of providing expertise and support for these stakeholders, with a view to coordinating approaches around knowledge transfer and developing and driving up the quality of health prevention and promotion programmes.

A partnership has also been founded with the health chair at the research university Sciences Po to carry out research on mapping and identifying strategic levers for influencing for the alcohol industry in France, as well as looking at the policy to combat obesity in France: how socio-structural factors of the disease have been made invisible. Finally, since 2018, Santé publique France has supported the public health chair at the Collège de France and has renewed this partnership for a further three years. This role is given to a different expert every year, and it is designed to encourage excellence in research and the highest level of intellectual debate regarding public health in France and throughout the world with the medical and scientific community, decision-makers and the general public.

ORGANISATION CHART

ACCOUNTING OFFICE
Accountant
Virginie DUBOIS



EXECUTIVE MANAGEMENT

Chief Executive
Prof. Geneviève CHÈNE

Deputy Chief Executive
Marie-Anne JACQUET

Scientific Director
Prof. Laetitia HUIART

Chief of Staff
Alima MARIE-MALIKITÉ

QUALITY CONTROL, RISK MANAGEMENT AND LEGAL UNIT

SCIENTIFIC AND INTERNATIONAL DEPARTMENT

Director/Anne-Catherine VISO

COMMUNICATION AND DIALOGUE WITH SOCIETY DEPARTMENT

Director/Alima MARIE-MALIKITÉ

ALERT AND CRISIS DEPARTMENT

Director/Stéphane COSTAGLIOLI

HUMAN RESOURCES DEPARTMENT

Director/Éric AMAUDRY

INFORMATION SYSTEMS DEPARTMENT

Director/Paul-Henri LAMPE

FINANCE AND EXPENDITURE DEPARTMENT

Director/Angélique MORIN-LANDAIS

SUPPORT AND DISSEMINATION TO THE PUBLIC DEPARTMENT

Director
Karine GROUARD

/Information and training unit
/Health telephony strategies
and dissemination unit
/Lille unit
/Strasbourg unit
/Marseilles unit
/Toulouse unit

ENVIRONMENTAL AND OCCUPATIONAL HEALTH DEPARTMENT

Director
Sébastien DENYS

/Exposure surveillance unit
/Environmental and
work-related pathology
surveillance unit
/Quality of living and
working environments
and population health unit
/Development, structuring
and partnerships unit

DATA SUPPORT, PROCESSING AND ANALYSIS DEPARTMENT

Director
Yann LE STRAT

/Applications, big data
and surveillance unit
/Support and methods
for surveillance studies
and investigations unit
/Support in design,
implementation and
use of investigations unit

OUR REGIONAL ORGANISATIONS

Santé Publique France covers the entire French territory through its 16 regional units, positioned to support each of the regional health agencies (ARS, Agence régionale de santé).

Each regional unit delivers monitoring, surveillance and alert operations. Through these units, the agency coordinates the national health monitoring and surveillance system, for which it defines the focuses and oversees actions, in partnership with the ARS. These partnerships are subject to agreements with each organisation.

Regional health agencies (ARS)

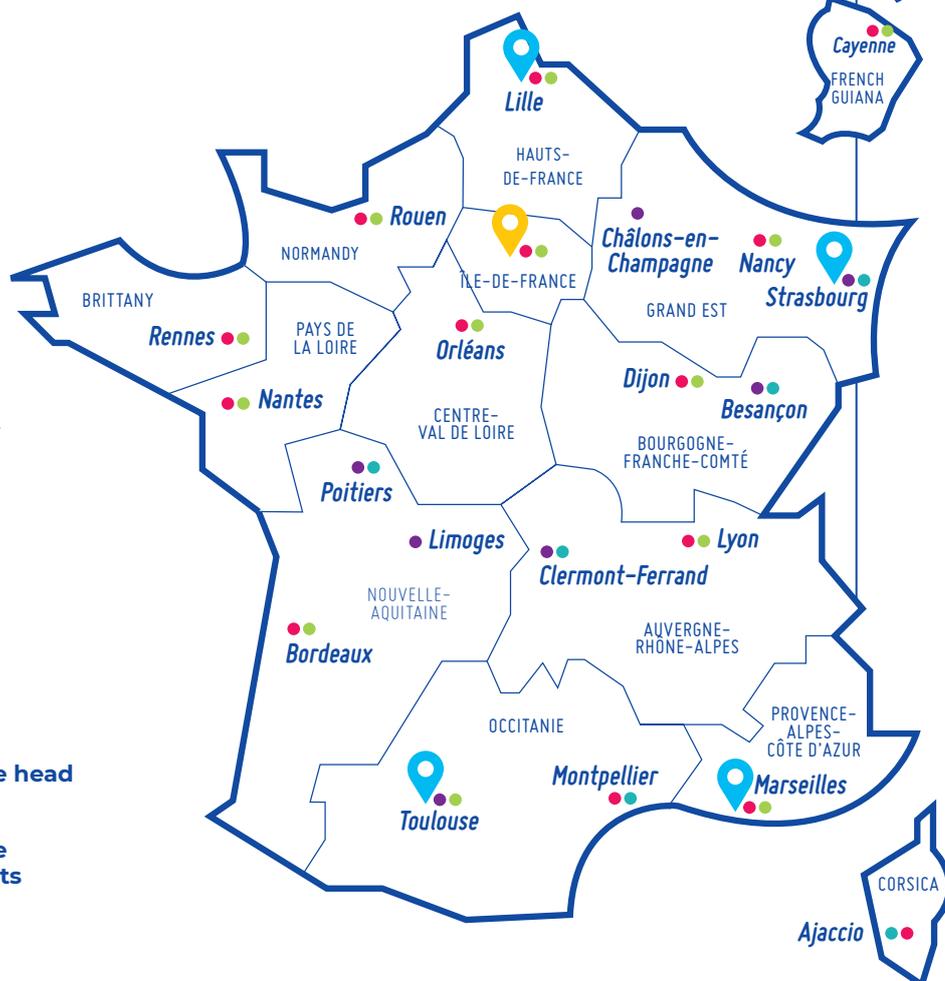
- Head offices
- Remote sites

Santé Publique France in the regions

- Head offices
- Remote sites

📍 Santé Publique France head office (Saint-Maurice)

📍 Santé Publique France remote assistance units



INDIAN OCEAN

St-Denis
RÉUNION ISLAND

MAYOTTE
Mamoudzou

ANTILLES

GUADELOUPE
Pointe-à-Pitre

MARTINIQUE
Fort-de-France

Cayenne
FRENCH GUIANA

CORSICA

Ajaccio

REFERRALS AND HEARINGS

INFORMING PUBLIC DECISIONS

Santé publique France produces independent scientific expertise for the benefit of population health. This knowledge and these expert opinions are made available to the competent authorities to inform health policies and to protect and promote health.

57 REFERRALS, INCLUDING:

- 36 referrals from the General Directorate for Health (DGS)
- 2 referrals from the Ministry of Health
- 4 referrals from the regional health agencies (ARS)
- 15 referrals from other bodies or institutions

27 HEARINGS, INCLUDING:

15 hearings by the French National Assembly and the Senate

- Social Security Evaluation and Management (MECSS, *Mission d'évaluation et de contrôle de la Sécurité sociale*), Hearing of Regional Health Agencies (ARS) - January
- Health-environment policy - January
- Reservist panel - February
- Reserves information report - February
- Current health crisis update - March
- Mental Health - March
- MECSS, extension of the compulsory vaccinations for children [article - 49 of the 2018 Social Security funding law [LFSS, *loi de financement de la Sécurité sociale*]] - March
- Coordination by the European Union of national measures to manage the health crisis - April
- Mental health and COVID-19 epidemic - May
- Young people's health - June and November
- Draft LFSS 2022 - September
- Paediatric cancers - October
- Consulting firms inquiry commission - December
- Social security in the 21st century - December

4 hearings by the Court of Auditors

- Children's health - April
- COVID-19 spending funded by exceptional allocations - June
- ROP policies in health prevention - September
- Paediatric psychiatry care offer - December

2 hearings by the General Inspectorate for Social Affairs

- Global health project - November
- National fertility plan - December

6 hearings by other organisations

- 2021 combating addiction fund action plan by the CNAM - January
- Recommendations from the national evaluation of the management of the COVID-19 crisis (Pittet inquiry) by the General Inspectorate for Finance (IGF, *Inspection générale des finances*) - February
- Annual review by the Council of State - April
- Public statistics in the health and social sectors by the National Institute of Statistics and Economic Studies (INSEE, *l'Institut national de la statistique et des études économiques*) - June
- Reforming public health (Chauvin project) by the High Council of Public Health (HCSP) - July
- Public statistics authority - December

_TERROR ATTACK HEARINGS

Focus on the specific hearing on the 13 November attacks with Prof. Geneviève Chêne.

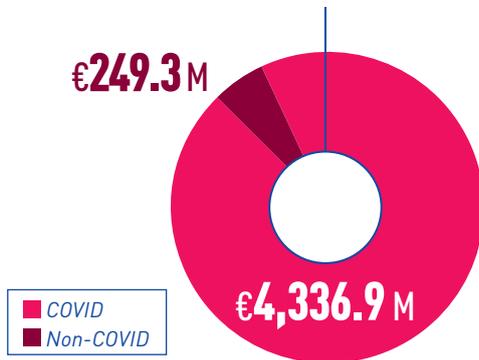
Geneviève Chêne spoke on 28 October 2021, in the proceedings concerning the attacks of 13 November 2015. She presented the main results and lessons learned from the "ESPA 13 November" survey, conducted by Santé publique France one year after the attacks. The results illustrate the psychological impact that these attacks had on the affected populations.

BUDGET

2021 REVENUE

4,586.2
million euros

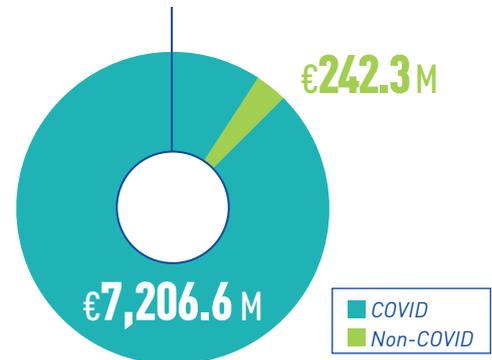
(commitment authorisations)



2021 EXECUTED BUDGET

7,448.9
million euros

(commitment authorisations)



In 2021, in order to respond to the COVID-19 crisis and to pursue its other public health missions, the agency committed €7,448.9M and paid €4,450.8M of expenditure. It received €4,586.2M in funding, mainly from the Health Insurance Fund.

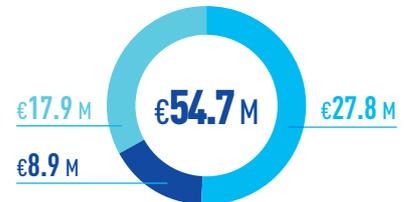
SUPPORT AND DAY-TO-DAY OPERATIONS



INTERVENTION IN EXCEPTIONAL OR EMERGENCY HEALTH SITUATIONS



MONITORING AND SURVEILLANCE



PREVENTIVE HEALTHCARE AND HEALTH PROMOTION



CROSS-FUNCTIONAL EXPENSES



COVID EXPENSES



PUBLICATIONS

LA SANTÉ EN ACTION (HEALTH IN ACTION)

La Santé en action is a journal published by Santé publique France on prevention, education and health promotion. It is intended for education, health and social care professionals.



March 2021/ Issue 455

Determinants of health, environment, socio-economic situation, access to employment, healthcare and prevention, but also trajectory of life, mental health: a comprehensive approach for migrants founded in a strategy of health promotion.



June 2021/ Issue 456

This issue analyses the value of building on compelling data - integrating both the knowledge gained through both experience and science, from professionals and users - in the field of health prevention and promotion.



September 2021/ Issue 457

This issue presents a summary of our knowledge about housing as a determinant of health, poor housing and several innovative projects and programmes to improve access to and stable placement in decent housing.



December 2021/ Issue 458

If specific populations are to benefit from the rights to health, care and prevention, we need to reach out to them. This special issue is devoted entirely to this approach: it summarises the state of knowledge and presents diverse examples from across the country;

BEH BULLETIN ÉPIDÉMIOLOGIQUE HEBDOMADAIRE

BEH is a peer-reviewed weekly epidemiological journal edited by Santé Publique France, which publishes articles submitted by a wide range of public health stakeholders. Articles are free to publish and available online in open access.

In 2021, BEH published 33 issues, including thirteen in the series on COVID-19. The articles in this series were produced using an accelerated publication process and regularly inserted into the BEH publication schedule.

ARTICLE OF THE MONTH

Santé publique France publishes more than 200 scientific articles per year in general or specialised journals. Every month, one article is highlighted and all the articles published in French and English international journals are identified.

KNOWLEDGE SHARING

Every year, the agency supports its scientific staff and partners in the development of relevant skills so that they can continue to put their expertise to use to serve action in public health. The teaching approach it favours is based on training through practice, peer learning, and the exchange of knowledge and experience between professionals. In particular, Santé publique France contributes to increasing the professionalism and coordination of the network of public health partners by providing its expertise and field experience to partners in initial and ongoing training (School of Higher Studies in Public Health [EHESP, *École des hautes études en santé publique*]-Institute for the Development of Applied Epidemiology [IDEA], ISPED). In 2021, we adapted the training to remote delivery.

Meetings arranged by Santé publique France to promote public health:

SANTÉ PUBLIQUE FRANCE THURSDAYS

The concept

Santé publique France's Thursdays are scientific seminars where experience and approaches are shared on any subject that falls under the agency's remit and activities, whether these are methodological issues, new and/or innovative approaches, current or "emerging" topics, etc. These seminars cover a range of disciplines (public health, epidemiology, human and social sciences, etc.).

The 2021 programme (invitation only)

- Obesity prevention policies: what are the returns on investment?
- Meeting with the Institute for Humanities and Social Sciences (INSHS, *Institut des sciences humaines et sociales*) at CNRS, following the report.
- Special presentation of the work of trainees in medicine and pharmacy.
- Fight against COVID-19 for populations in extreme poverty.
- Public health alerts and their evolution, by Francis Chateauraynaud, Pragmatic and Reflective Sociology Group, School of Higher Studies in Social Sciences (GSPR, *Groupe de sociologie pragmatique et réflexive*; EHESP, *École de hautes études en sciences sociales*), Paris.
- Presentation of the work of trainees in public health.
- Climate change and health: what role does a public health agency play?

THE SANTÉ PUBLIQUE FRANCE ANNUAL MEETINGS



The Santé publique France Meetings are the agency's corporate event. Organised every year, they host nearly 1,200 people over three days to attend plenary lectures, parallel sessions, workshops and seminars, and to share their different experiences in health monitoring, prevention and peer-to-peer interventions. To explore the schedule, registration procedures, practical information and archives of previous events, visit the website rencontres.santepublique-france.fr.

30

TRAINEES HOSTED

45

INTERNS FOLLOWED THE IDEA COURSE

7

SCIENTIFIC SEMINARS

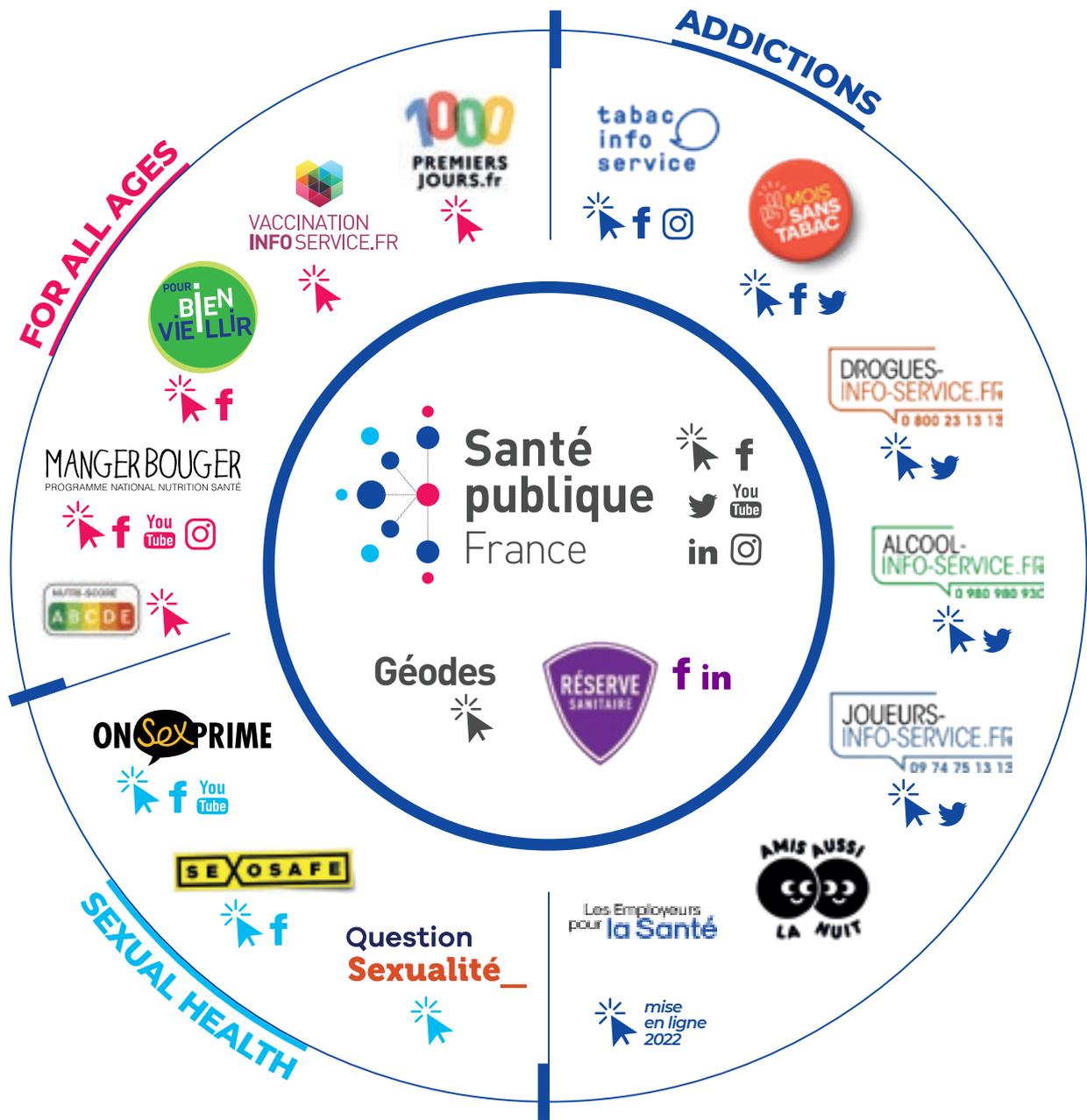
HOSTING TRAINEES

Santé publique France welcomes medical or pharmacy trainees who participate in the agency's work each year. In 2021, 30 trainees were hosted and involved in monitoring the COVID-19 epidemic.

INTERNATIONAL APPLIED EPIDEMIOLOGY COURSE (IDEA), CO-ORGANISED WITH THE EHESP IN RENNES

In 2021, 45 interns, health surveillance professionals or young people training in intervention epidemiology were trained remotely through classes, illustrated by examples, workshops and case studies on raising alerts and investigating during epidemics, epidemiological surveillance and vaccination. The IDEA course, conducted over four weeks, included 23 classes, seven workshops and four case studies. Although it was a success, as soon as the health restrictions are lifted in 2022 the course will be able to return to the intensive delivery over three weeks on the Rennes campus.

OUR PREVENTION TOOLS



This document is prepared by the communications department of Santé Publique France.

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Design and production: **WAT** - agencewat.com - 2112_02759.

ISBN 979-10-289-0805-8
ISBN-Net 979-10-289-0804-1





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