

The home of health data





"Let me start with the moral centre of our work, with this simple but crucial statement: WHO's work is about serving people, about serving humanity. It's about serving people regardless of where they live, be it in developing or developed countries, small islands or big nations, urban or rural settings. It's about serving people regardless of who they are. Poor or rich, displaced or disabled, elderly or the youth. Most importantly, it's about fighting to ensure the health of people as a basic human right."

Analyse Transforming our understanding of the world

4

Personalize Tailored to your needs

Engage

Building a community that learns together

Q

Powered by

Integrating systems and solutions

The home of health data

Using data to improve health for everyone, everywhere.

Introduction





5

Data makes sense of a changing world. We change the world by making sense of data.

Every data point is a person. A place. An event. Every number tells a story. Or many stories.

Those who are living healthier, longer lives. Those who are sick and seeking treatment. The health workers who care for them and the country health systems that exist to serve their people.

Understanding and acting on health data can:

- Enable better health and well-being
- Ensure healthcare for all
- Eradicate diseases
- Protect from emergencies

The World Health Organization has the responsibility as the steward of the world's health data to make it accessible to all so that no country, no city, no community and no person is left behind.



The collection, communication and use of health data has experienced a global revolution, driven by huge advances in technology and connectivity.

WHO is committed to empowering each and every country to join the health data revolution and grasp the opportunities it provides by transforming access to health data.

We are working globally to

- Reduce duplication in health data collections
- Collate disparate health data sources
- Improve the accuracy, efficiency and reliability of data collection, harmonization and dissemination
- Provide open-access tools to explore and analyse health data
- Equip decision makers with clear, timely information and insights



Inequalities in access to health data.

Public or statistician. Nurse or minister. Media or researcher. East or West. North or South. Rural or urban. Access to health data is not always equal. Access to health data is not always easy.

A truly accessible, trusted and actionable source for the full breadth of the world's health data simply does not exist – yet.

+3 233%

As the world reacted to the COVID-19 pandemic, Google search popularity for the word 'cases' saw a global increase of 3 233% in March 2020 from the previous five-year average. And since then has held steady at +567%.

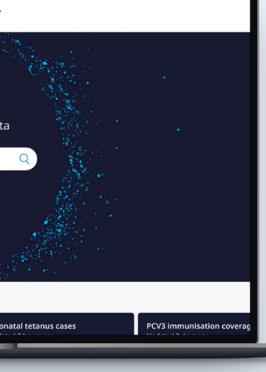
The rise in queries for 'cases' reveals the democratisation of health data consumption. It reflects the public request for accurate, timely and reliable data so they can measure risk and make decisions.



Changing the world is possible

The home of health data data.who.int

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	Data.	Explore data 🗸	Insights ~ Tools ~ Engage ~	
	Data > Dashboards COVID-19 situation dashboard Track Trends Testing References		Last Updated 11 November 2020, 15:08 CEST	
	Global Search for a country Confirmed cases	Q > Jan 1, 20	Data. Explore data v Insights v Tools v En	ngage 🗸
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Vaccine success stories give u for the future	Confirmed malaria cases per 1000 Let Updated 30 September 2020, 15.08 CEST There		Find health data Topics Countries	
	Mark >	LATEST	DATA	i de la
		COVID	COVID-19 deaths - 0.4%	Ne



Accessible

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Responsive

Fully responsive and built for devices of the future.



Multilingual by design, catering for all languages and scripts.



Inclusive

Accessible for users with visual, auditory, motor and cognitive impairment.

The home of health data

We are making health data findable, browsable and usable.

Built for everyone

Health data is a public good and must be accessible for all. data.who.int aspires to be the most accessible, harmonized public health data platform in the world.



Performance

Improved speed and performance for data consumption.

Shareable

Designed for social, embeds, apps and syndication.

359.1_{million} 75%

800 million

0.07_{Mbs} 4.39_{billion}

There were 4.39 billion internet





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Trusted

Accurate, Reliable, Accountable,

WHO has been working directly with countries to improve the quality of global health information since 1948. We work with our Member States and trusted partners to report data that is accurate and reliable.

All data WHO collects is stored, analysed, validated and used in accordance with international standards and best practices in health data management.

WHO's Data Principles provide a foundation for continually reaffirming trust in the information and evidence on public health we provide.

- WHO shall treat data as a public good
- WHO shall uphold Member States' trust in data
- WHO shall support Member States' data and health information systems capacity
- WHO shall be a responsible data manager and steward
- WHO shall strive to fill public health data gaps

WHO has harmonized data sources across its 194 Member States, ensuring health estimates and statistics are comparable across the world, and charting progress towards common, global goals such as the SDGs.

"Trust is the DNA of our work. If people lose trust in official numbers, then we lose everything."

Dr Samira Asma

Assistant Director-General for the Division of Data, Analytics and Delivery for Impact, World Health Organization



The home of health data

Actionable

data.who.int is built to transform lives.

We complement data with meaning, giving the necessary information for action to:

- Shape public policy
- Respond to health emergencies
- Allocate healthcare resources
- Make informed decisions

Insights gleaned from data analysis enables policy makers to better address gaps in health policy, service delivery and meet the world's most pressing needs.

data.who.int maps indicators to the Triple Billion targets and Sustainable Development Goals as well as relevant recommendations, guidelines and advice from WHO.





The home of health data

The world's health data in one place

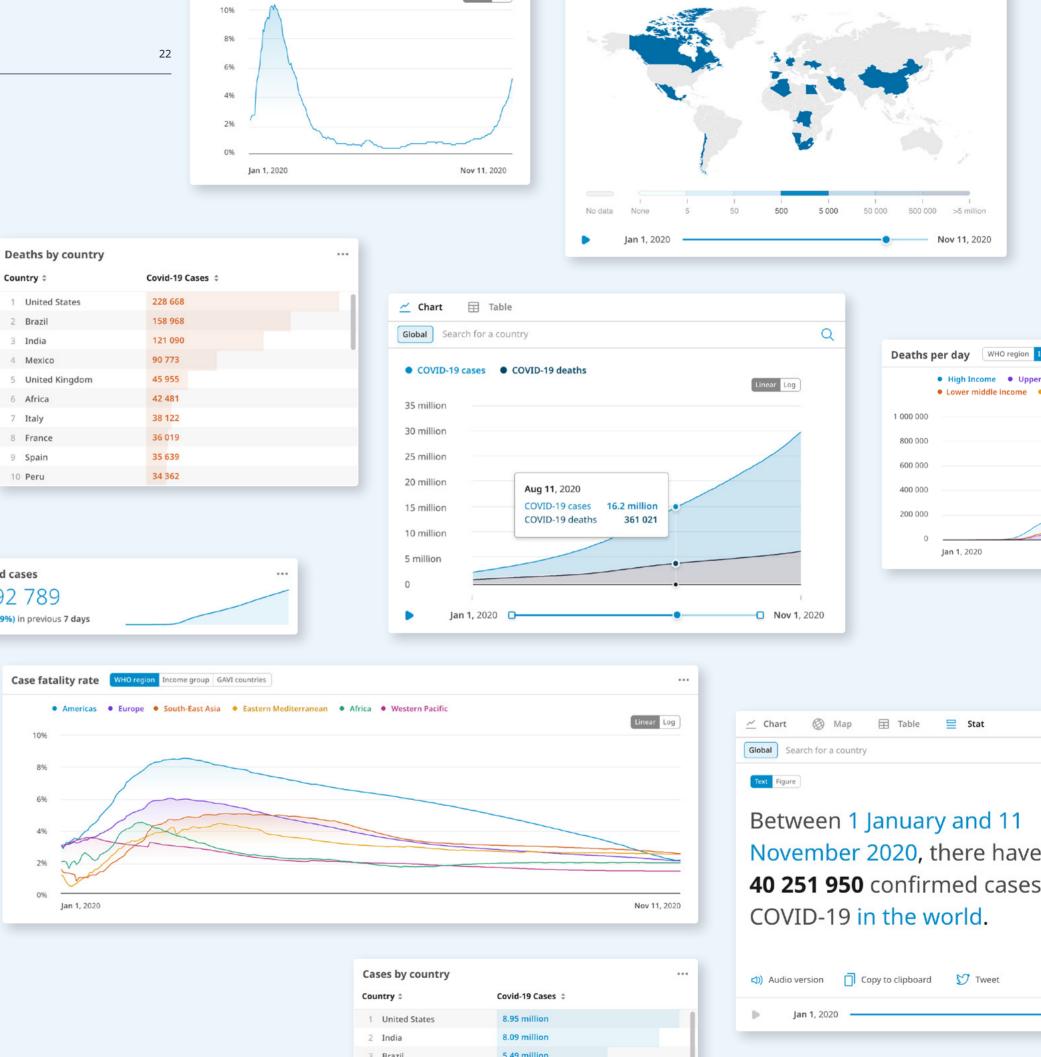
Explore



The home of health data

10% 8% 6% 4% 2% 0% Jan 1, 2020 Nov 11, 2020





Cases by country							
Country ‡	Covid-19 Cases 💠						
1 United States	8.95 million						
2 India	8.09 million						
3 Brazil	5.49 million						

Explore the world's health data in a single place, accessing data from WHO, partners, trusted and publicly available data sources in one seamless experience.

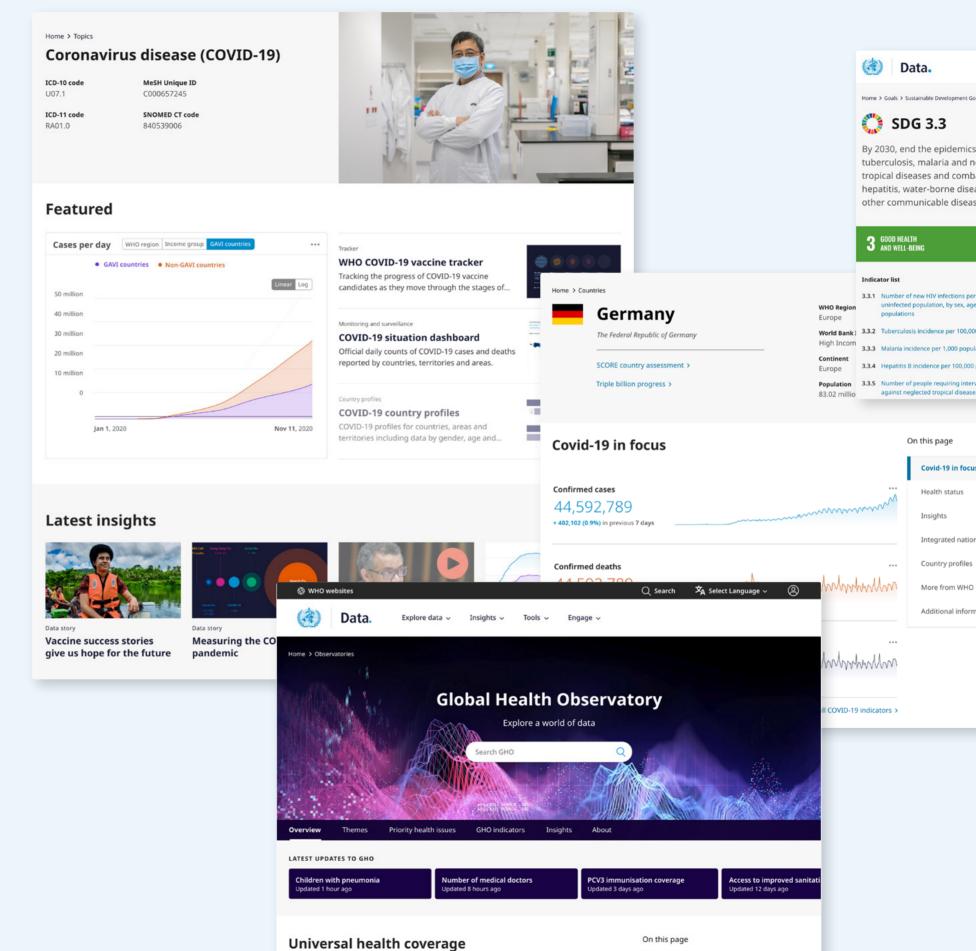
World class data visualization

Accessible, engaging visualization and information design making data easy to understand. Users can explore data in multiple ways using a range of common views to ensure that data is accessible, usable and shareable at all times.

Quick and scalable

From collection to visualization, data.who.int provides faster access to data. By applying a more agile approach of reusable visualizations, we enable the creation of dashboards and portals at speed and scale.

The home of health data



Browse through multiple lenses

Users can access and browse data through a range of pathways, allowing for custom themes and dashboards.

By providing a dynamic, common system, we create the backbone for publishing channels, WHO observatories and data portals.

WHO technical programmes, regional offices, country offices and partners are equipped with their own space to collate, curate and publish dashboards, insights and data assets.

> Good health is essential to sustained economic and social development and poverty reduction. Access to needed health services is crucial for maintaining

Universal health coverage



	1
WHO Region	
Europe	
World Bank]	1.1
High Incom	1.1
Continent Europe	1.1

3.3.2 Tuberculosis incidence per 100,000 popula 3.3.3 Malaria incidence per 1,000 population 3.3.4 Hepatitis B incidence per 100.000 popul 3.3.5 Number of people req

On this page



Health status

Insights

Integrated national data

Country profiles

More from WHO

Additional information

Explore the journey of data

By providing access to the entire data journey, a comprehensive understanding of data has never been easier.

data.who.int seamlessly maps complex relationships from dashboards and visualizations to source data. This data includes indicators, datasets, metadata, microdata, collection instruments and methodology. Users are given complete transparency to the journey of data from collection to visualization.

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🚯 Data.

Explore data

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Insights

Tools

Search

Search		
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Ch agas disease		
Chemical safety		
Ch ikungunya		
Child development	t	
Child growth		
Cholera		

Smarter search

Advanced search capabilities provide users with a smarter experience, serving personalized results based on their unique needs and motivations. Features include semantic, multitenant-capable and plain language search.

Our machine learning engines analyse and track search trends to feed search data back into our algorithms, creating an ever-improving system and search service.

Library of resources

Data.	Close $ imes$
earch	Q
xplore data	\sim
nsights	\sim
ools	^
Data standards	
Reference data	
Collection and analysis	
Guidelines	
Languages & Sites	~

WHO's history of global health leadership provides a wealth of flagship products and services that support Member States, partners and health professionals on the ground.

data.who.int consolidates our health data resources into a browsable library of products and tools.



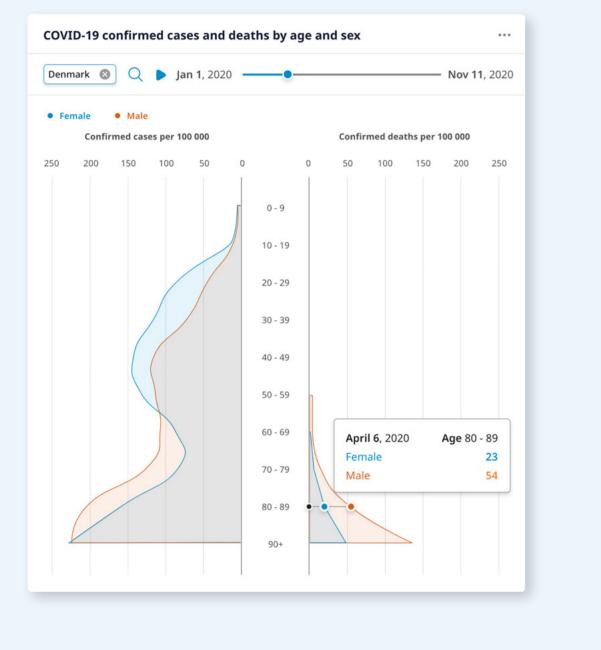
The home of health data

Transforming our understanding of the world

Analyse



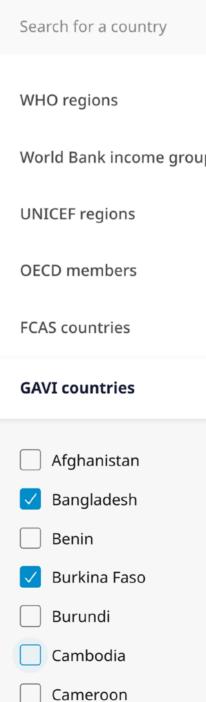




Disaggregated

WHO is committed to addressing data gaps and revealing inequalities in health and health data.

data.who.int releases and visualizes disaggregated data, where available, by dimensions such as sex, age, economic status and education, helping to uncover gaps and implement effective policy to transform lives and communities.



At country level, aggregated data can reveal patterns to inform decisions that shape our healthcare systems, national policies and international cooperation.

data.who.int allows analysis of country data based on custom selection and internationally recognized groupings.

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Powerful comparisons

A new comparison tool allows users to quickly and easily compare data across geographies, indicators and time periods.

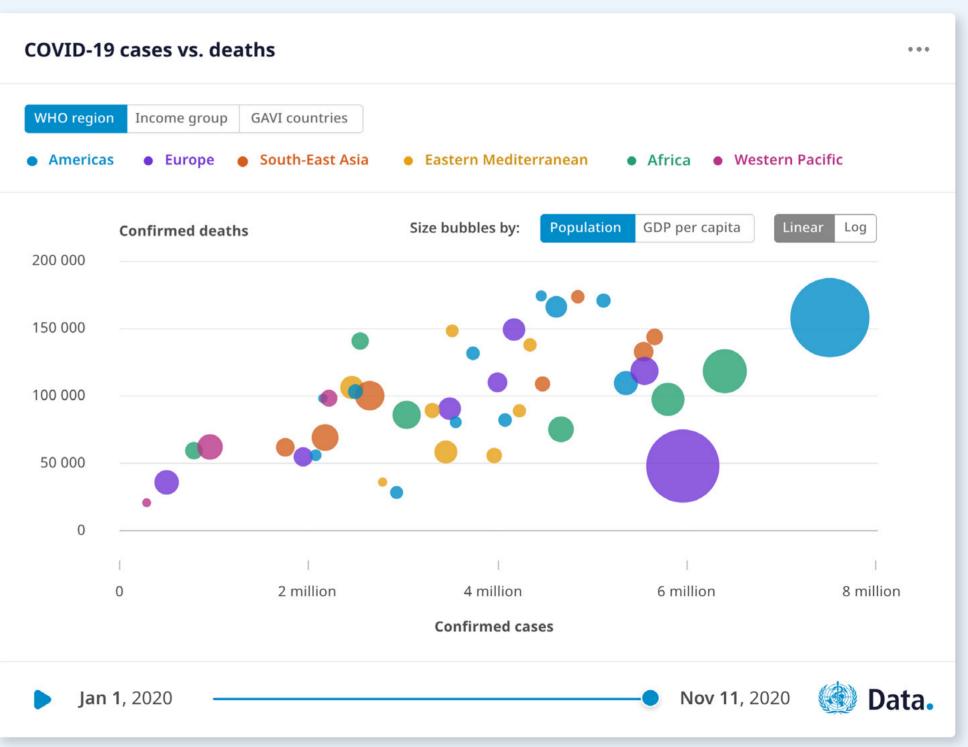
Common views such as chart, map and table automatically adapt to serve the best visualization for the shape and type of data being plotted.

Expert analysis

Exploring deeper relationships between indicators and data dimensions can bring greater understanding and insights that impact decision-making and policy design.

Crucially, this includes analysis across levels of disaggregated data revealing comparisons and trends at, or between national, subnational and demographic levels.

WHO's technical programmes, data managers and world leading experts analyse and release data visualizations that reveal correlations, causal relationships, comorbidities, confounders and risk factors.



Health forecasting

Predictive analytics, forecasting and simulation modelling built on the foundation of reliable data.

data.who.int provides countries and the global health community with forecasting scenarios that facilitate intervention strategies from health promotion and prevention to emergency risk management, health system readiness and universal health care.

We remove bias from single predictive models by partnering with worldleading academic institutions to publish multiple forecasts, supplied with the relevant methodology, assumptions and modelling uncertainties.

Aug 21 , 2020	
Scenario A	34.4 n
Scenario B	27.3 n
Scenario C	24.4 n





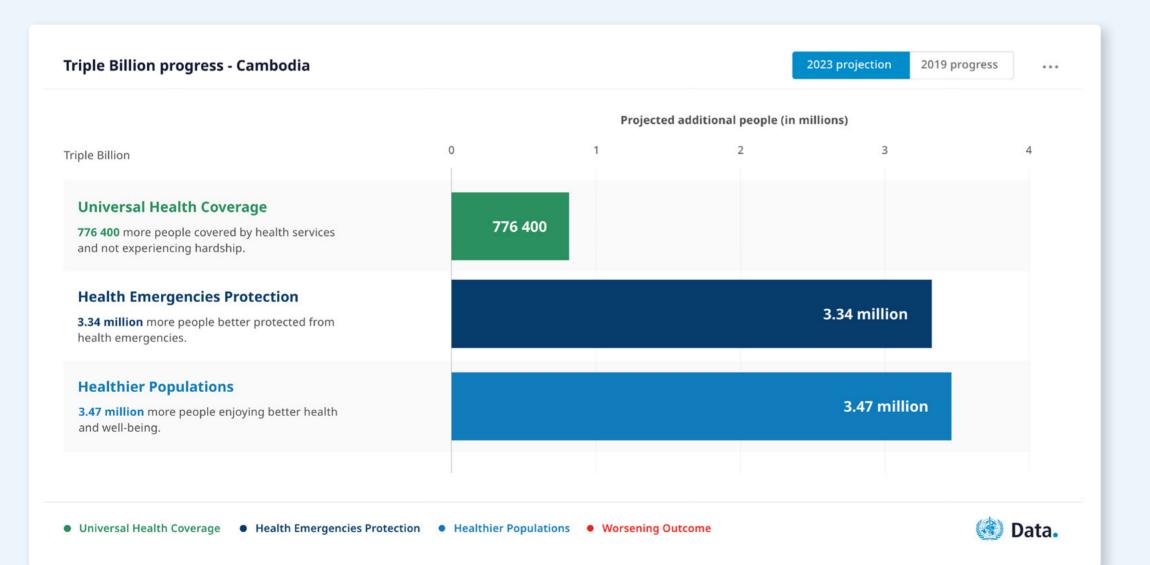


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Data to deliver impact

data.who.int tracks health indicators against global goals and targets measuring progress through regular stock takes.

As the COVID-19 pandemic impacts progress towards the 2030 Sustainable Development Goals and Triple Billion targets, data is vital in helping the global community understand where we are and interventions that can positively affect progress.







The power of place

We make complex relationships understandable through our geospatial analysis tools.

Studying health data combined with topological, geometric and geographic spatial data properties reveals detailed patterns shaped by the contours of our world.



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Thinking big

We harness the power of big data by augmenting health-related statistics with large and complex data from trusted sources.

As the measurable interactions of the world continue to increase in volume, velocity and variety, we disentangle the complexities of big data to improve its utility and understanding for the end user and value for countries.

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We don't just analyse data, we analyse how people use and access data

Explore trending topics

Delve into the health data trending around the world today.



Sandbox capabilities

Request access

Email*

Full Name*

Reason for access*

Send request

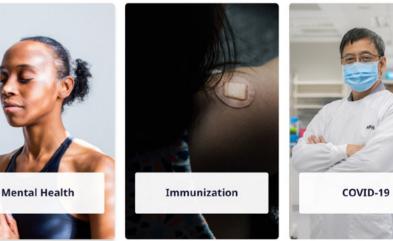
Our data repository is readily accessible by WHO technical programmes and partners, providing a secure zone to explore our rich data sets through interaction, experimentation and collaboration.

Through data.who.int, members and institutions of the global data community can request partner-level access to an inventory of unpublished data assets held by WHO, providing opportunities to collaboratively work in a cloud-based analytics environment.

Creating feedback loops

By tracking the usage and consumption of all data assets, we create feedback loops with users presenting insights on most-viewed indicators, trending visualizations and most-shared data by region and country.

Understanding how people use data.who.int allows us to improve it, make recommendations to users and understand which data is trending at any given moment.



Data.

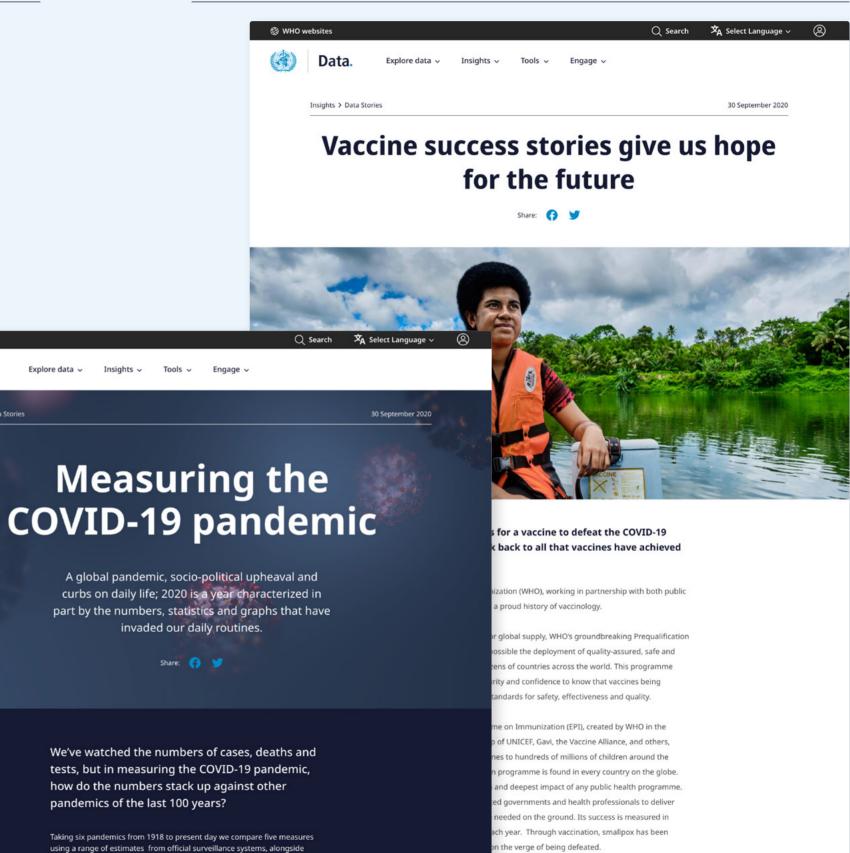
Insights > Data Stories

Explore data v

Insights v

scientific research studies and academic estimates

The home of health data



Telling stories of data, from data, about data

Understanding the narratives and voices behind the numbers helps us make sense of things.

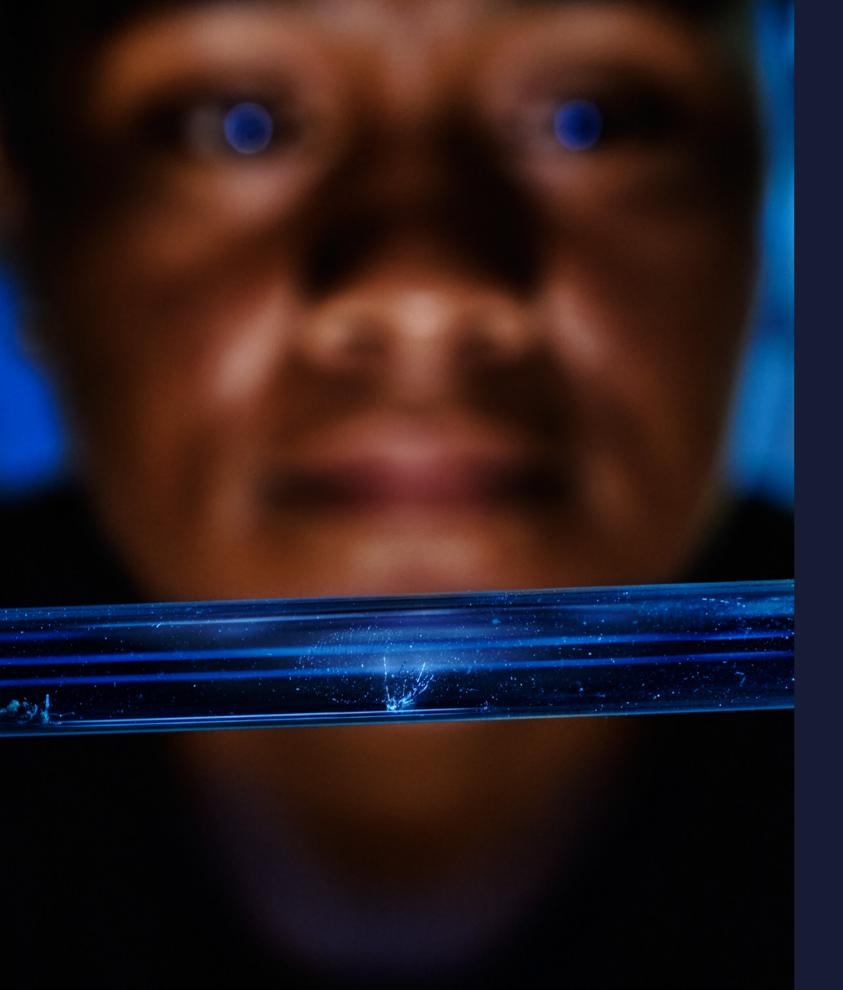
Our engaging editorial and analytical content provides users with world-class data commentary, information design and data journalism where trusted sources and analysis are at the heart of the story.

		Q Search	ネ Select Language 〜	8
Tools 🗸	Engage 🗸			

nce of disease

2018 (the latest year for which estimates are available), m neonatal tetanus, an 88% reduction the figure of





The home of health data

Tailored to your needs

Personalize



Customized experience

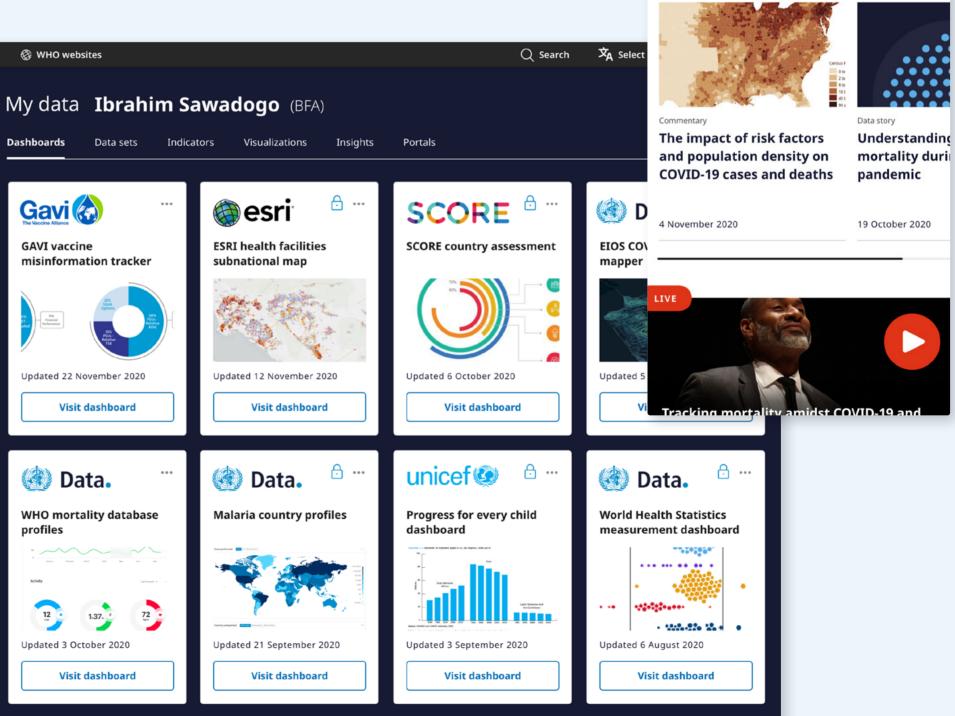
Combining the history and preferences of users with machine learning algorithms and our expert knowledge of the data, we tailor the experience of data.who.int to individual needs and requests.

Our advanced and extensive filtering system allows for further refinement and customization directly controlled by users to aid with queries and discoverability of data.

Login and subscribe

We invite users to login and subscribe to health data channels through the lenses of location, theme or publisher. Users can designate favourite indicators, dashboards and data sets for quick reference and receive alerts when changes or updates are made to the underlying data.

Customized dashboards are available for logged-in users with additional permissions providing access to private dashboards and non-public data including Triple Billion progress.





For you



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Schedule notifications



Trigger alerts

Request custom alerts for an indicator or visualization by scheduling triggers based on your requirements.

Threshold alerts

Notify me when a data value passes a specified threshold.

Rank alerts

Notify me when the rank of a dimension value changes, passes a threshold or passes another value.

Time-series alerts

Notify me at a specified period of time based on these parameters.



We provide a system-wide, explorable calendar of data releases populated with the scheduling of annual, monthly and all other collections, mapped to indicators and visualizations.

Schedule diary events or request notifications for data updates by a preferred method and device.

data.who.int keeps you informed



Immunization coverage estimates

Global Health Estimates

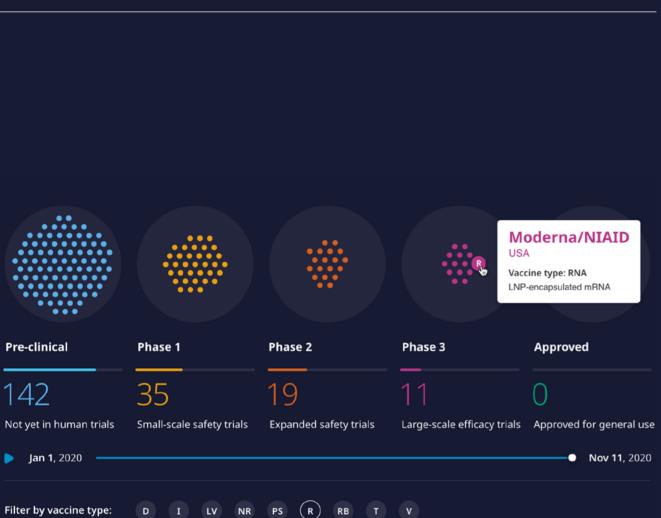
Statistics report **Global Health Workforce Statistics**

An accelerator for discovery and innovation

Innovate







Accelerating progress

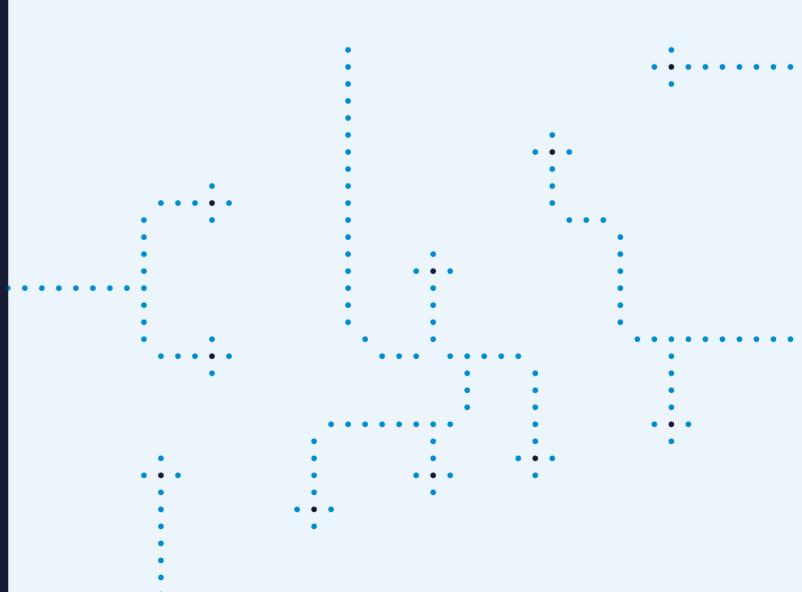
Accurate and complete data is essential for sound decision making on health spending, for responding to countries' specific health needs, and for measuring progress and impact of health programmes.

The launch of data.who.int provides a key contribution to the SDG Global Action Plan Data and Digital Health Accelerator, helping to achieve the 2030 SDG targets.

AI and machine learning

Our artificial intelligence and machine learning platform will empower data scientists with cutting edge tools for prediction, classification and natural language processing.

When these algorithms are applied to the wealth of data assets from internal and partner data repositories, social media feeds, news outlets, and other data sources, we will be able to derive insights at scale and speed to inform urgent and important policy decisions.



Data challenges

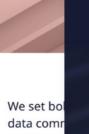
We set bold challenges for the global data community that are complex and hopeful.

Each data challenge addresses some of the largest health issues facing the world today; issues that require understanding, insight, imagination and informed decision making.

Home > Engage

Data. challenge

Tackling the world's health problems with data



and hope

Regular data ch health issues fa understanding making.

Only about half of all deaths around the world are reported with information on cause of death.

Hi, how can I help?

How many Covid-19 cases have there been in Germany today?

18 487 confirmed cases

WHO data assistant

The data.who.int smart assistant aids users with answers to requests and queries in the context of daily tasks. Providing direct data value answers to questions and signposting to data or editorial assets, our smart assistant is always available as the first point of enquiry.

WHO Data Help Desk

Supplementing the assistant is the WHO data help desk with a browsable knowledge base and enquiry form providing direct contact to the data managers and technical focal points responsible for every data asset and indicator.

Cross-disciplinary teams from around the world are given access to our data sets and datamodelling sandbox to drive insights and solve public health challenges.

Outcomes are published, peer-reviewed and made publicly available for the common good with attribution to the team and the wider community working together to achieve transformative goals.





THE BRIEF

Develop a methodology for calculating key ormance indicators (KPIs) based on reliab data, that relate to cause of death reporting ology should facilitate accurate and reliable n and robust Health Info ns, while KPIs incentivise national an subnational reporting



Learn more

Connecting X to Y

Every data point means something. Every number has an implication.

Mapped to goals and targets, interventions, guidelines and standards; indicators are made actionable by leveraging wider WHO digital content.

Supplementing data with journeys to related content on WHO's other websites will help users to immediately understand the implications and meaning behind changes in data and respond accordingly.

Building country capacity

The WHO Data Skills Programme is a capacitybuilding training course that gives analysts from Member States and partners the opportunity to develop their data science skills using data.who.int and the systems that power it.

Participants are given the opportunity to explore and experiment with new tools and techniques including:

- Advanced data visualization
- Geospatial analysis
- Machine learning
- Forecasting
- Big data

Addressing data gaps

Through our work with countries, WHO is uniquely placed to survey the health data landscape and isolate priority data gaps to be addressed.

By working across the data community and alongside partners, WHO can provide synergy to address data gaps by targeting key areas and delivering focussed activity to raise the profile and collaboratively develop solutions.

Through hosting health data symposiums and events, publishing stories and insights, and setting data challenges and tasks given to our AI engines, we can create momentum for discovery, innovation and change.



Sharing data has never been easier

Share



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in

₫ Share

□ Save

Data here

All data visualizations are immediately accessible and compatible across the wider WHO digital ecosystem.

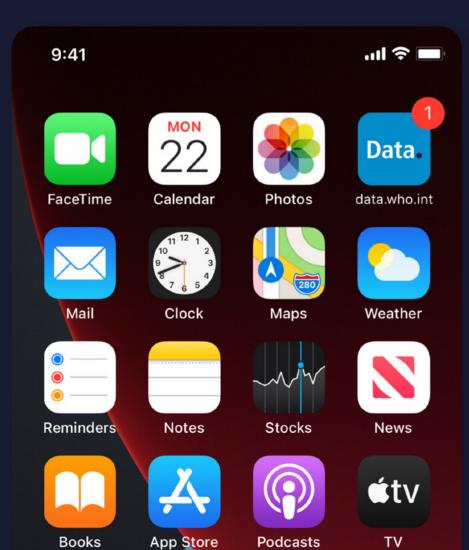
We ensure the interoperability of WHO digital systems with understandable user journeys allowing for a seamless experience between WHO websites, portals and apps.

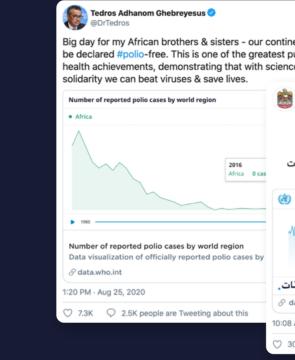
Data there

Sharing data is at the heart of our component capabilities. Our data can be found and accessed from whichever device you use.

Users can share WHO-published data visualizations on any other website, news story or digital publication with a direct route back to data.who.int for further information.

Uniquely resourcing countries and supporting national capacity, our Member State dashboards can be fully integrated into official government websites for more efficient data dissemination.







Comparing the spread of coronavirus in different cour data being released by governments. Confirmed case the extent of countries' very different testing regimes, simply reflect more testing.

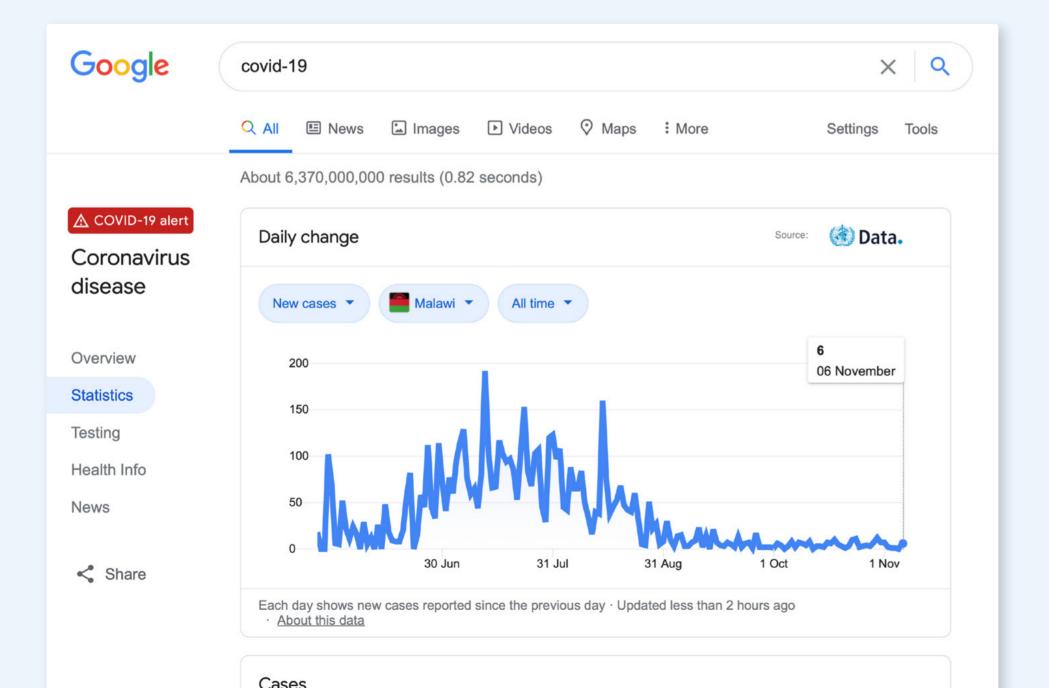
Deaths are somewhat more reliable, but remain problem have different rules for what deaths to include in their most notable difference between countries' Covid mo

ent will ublic e &	
UAEGov 🥥 @uaegov	y
	#الإمارات ليوم الإثنير
جديد ضمن خطط توسيع نطاق الفحوصات في 1,209 إصابة جديدة، و680 حالة شفاء، و4 حالا، ة الماضية.	
له	عدد الحالات المبلغ عذ
MMMMMmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm	إصابة جديدة، 1 209 الكشف عن 24 ساعة الماضية.
بياذ	
ata.who.int	
AM · Nov 16, 2020	()
0 See UAEGov's other Tweets	

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onavirus are difficult to lercounts. But the data excess mortality metric official case and death		
O region Income group GAVI countries	•••	
diterranean • Africa • Western Pacific	Linear Log	
	Nov 11, 2020	
ntries is difficult using the counts depend heavily on so higher totals may		
ematic because countries r official numbers. The rtality figures is whether		
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We structure our public data assets to power ground-breaking digital partnerships that enable data content to be leveraged and shared with a wider audience.

Our content is structured for syndication and consumption allowing search engines, applications and other products to share accessible, trusted and actionable health data natively; extending its reach and impact, and linking back to its WHO source.



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Open data

WHO's first principle is to treat data as a public good. We advocate and build upon open data and open source solutions making every effort to release data publicly and to share when safe and ethical to do so. Unless there is a legitimate justification to the contrary, WHO ensures data is open and accessible to the public in line with this principle.

We also commit to bilateral approaches that address open data challenges and ensure we are transparent about how data is collected, used and shared while protecting the privacy of an individual or sensitive information.

To ensure the interoperability of our data to be consumed and used by other diverse systems and organizations, data.who.int lays a foundation for:

- Availability and access
- Reuse and redistribution
- Universal participation



Building a community that learns together

Engage



Fostering community

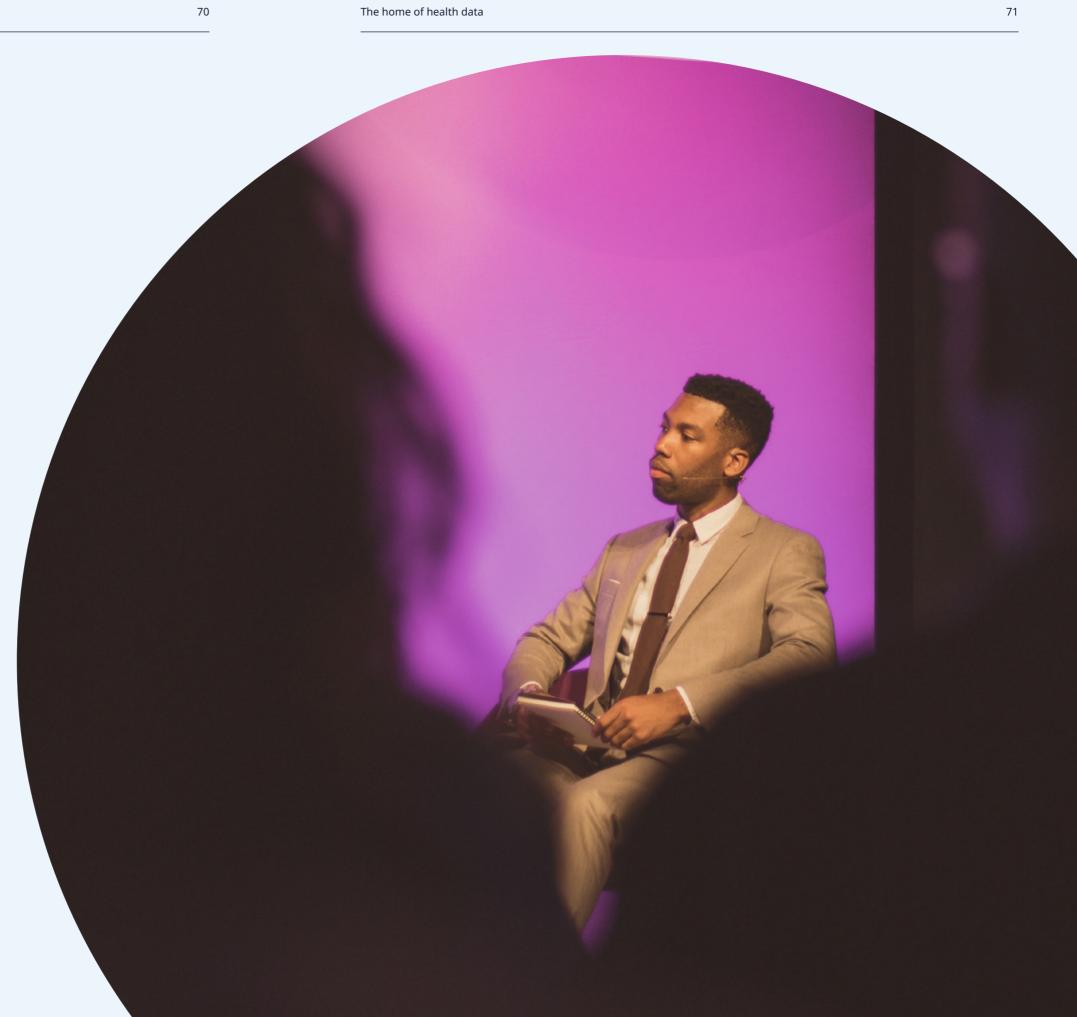
We open our doors, as well as our data, in our commitment to working with others.

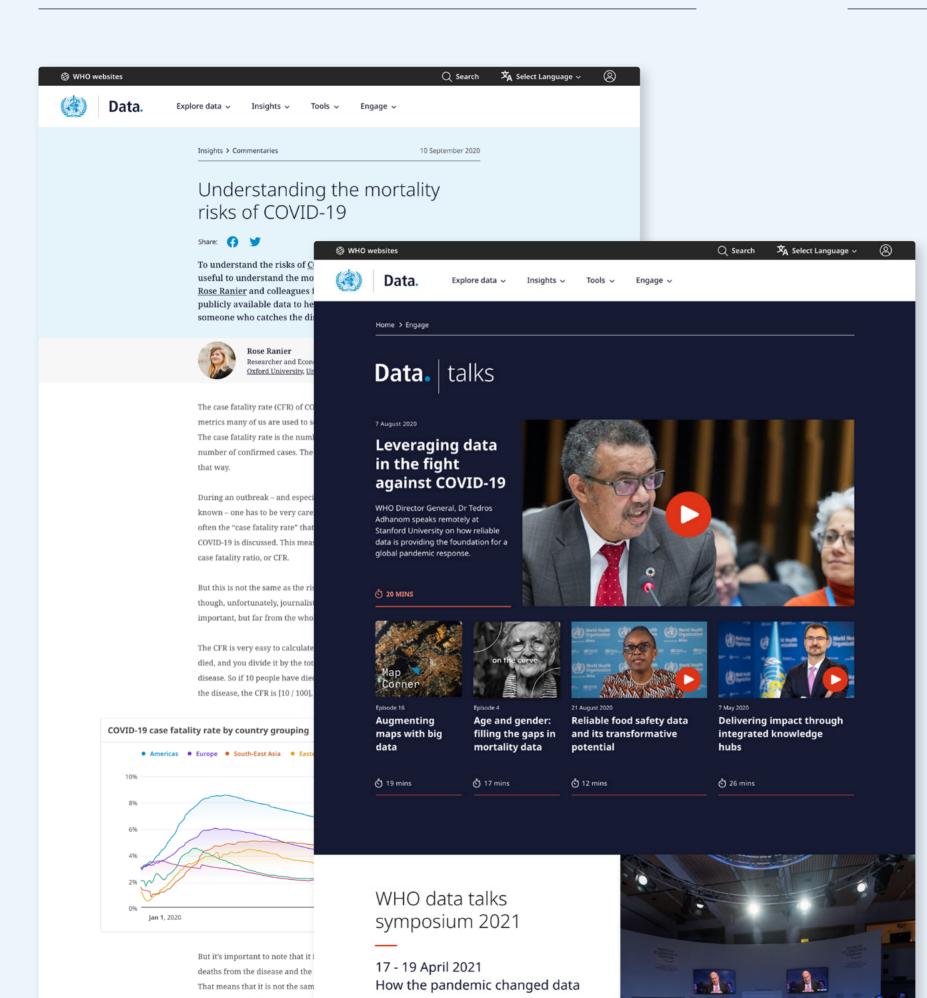
We leverage data.who.int to build and nurture a community around health data; fostering ideation, facilitating innovation and increasing capacity across the field.

As we innovate to tackle some of the world's greatest challenges, community is at the heart of our approach. We continually seek to strengthen, resource and learn from those around us, utilising data to better the lives of others.

"Together, we need to accelerate the implementation of transformation, even as we continue to learn and add new ideas."

Dr Tedros Adhanom Ghebreyesus World Health Assembly Nov 2020





Thought leadership

Our editorial and analytical content provides users with engaging, world-class data commentary, research and data journalism.

data.who.int provides a curated publishing space inviting respected thinkers, experts and practitioners to share insights and ideas to inspire, challenge and further the discussion.

By providing a space to cultivate progressive learning, we aim to sharpen our response to data challenges by utilizing best practices and initiating new ideas.

The value of discussion and debate, of big ideas and new concepts, of conversing and conferring, are championed by our Data.talks events and resources.

The Data.talks media library provides free access to our catalogue of video and audio resources from events and interviews while our commissioned podcast series hosts voices and stories that motivate and inspire.

Measured impact

We measure impact by engagement and transformation using a combination of indepth, carefully calibrated qualitative and quantitative techniques.

This includes measuring engagement at every digital touchpoint: visualizations, shares, exports, API calls, embeds and more.

By measuring impact alongside consumption and application, we build a broader picture that speaks to increased capacity, country resourcing and transformation.

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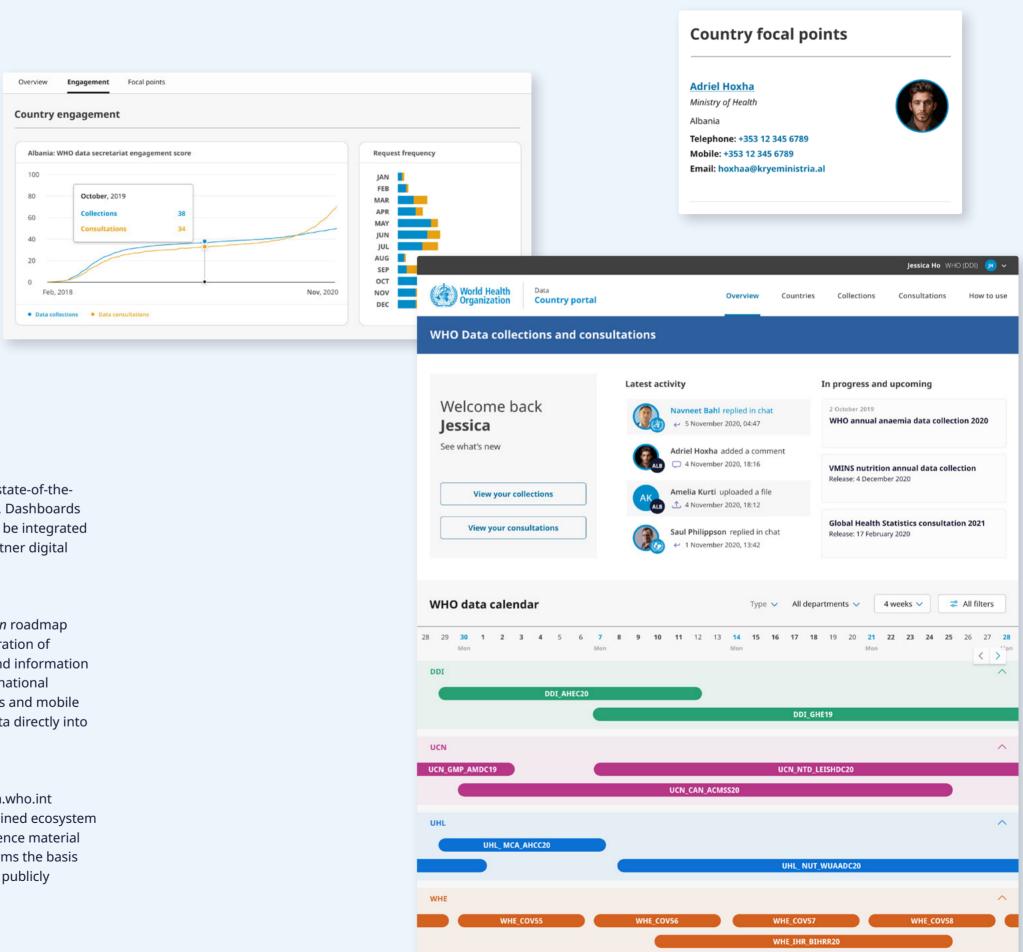
Integrating systems and solutions

Powered by



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Country Portal



Manage all data requests in one place

The WHO Country Portal is the transformative solution for data collection and consultation with countries, areas and territories allowing Member States to manage all health data requests from WHO.

Seamless processes

Member States can directly upload data and access restricted data for verification, consultation and approval. The two-way portal facilitates data, document and communication exchange, creating frictionless processes in a centralized, secure environment across all levels of WHO and our data collection partners.

Customized

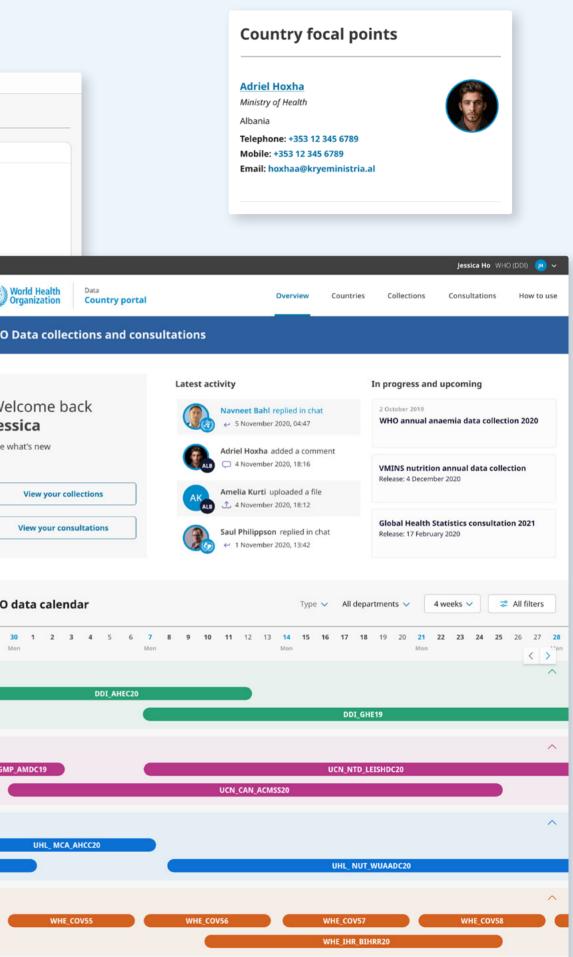
Partners and countries have quick and easy access to the latest data and information including custom dashboards and datasets utilizing our state-of-theart data visualization tools. Dashboards and visualizations can also be integrated into other country and partner digital environments.

Integrated systems

WHO's reducing data burden roadmap plans for the further integration of complex data processes and information systems whereby existing national health information systems and mobile collection systems feed data directly into the Country Portal.

Interoperability

The interoperability of data.who.int functions creates a streamlined ecosystem where metadata and reference material from the country portal forms the basis for microdata that is made publicly available at a later date.





Central Data Repository

The WHO Central Data Repository is a worldleading technical solution for the management and storage of health data; ingesting, harmonizing and processing data with built-in metadata management and governance process standards.

The repository forms the foundation that powers the experiences of Member States, partners and stakeholders across public-facing interfaces while serving WHO data managers with further tools and functionality:

- Data protection, governance, publishing and discovery
- Data pipeline authoring
- Sandbox environments
- Data infrastructure as a platform
- Cloud scale

The repository centralizes WHO and external data for common use, ingesting from WHO's internal applications, partner organizations and real-time big data sources.









Data Source Data is collected from different sources

Drop Zone Intermediate storage for raw data

Bronze Raw data without transformations

Silver Easy to consume data sets

Gold Data ready for publishing

Platinum Easy to combine data from various initiatives

Public Portal Data is available for internal and external users

With thanks to the following organizations for their input and support

- BBC
- Deloitte
- ESRI
- Google
- Information is Beautiful
- Our World in Data
- Oxford University
- Set Reset
- She Was Only
- The Susan Thompson Buffett Foundation
- WAIVE
- World Bank
- World Data Lab

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- Regional Office for Europe
- Regional Office for South-East Asia
- Regional Office for the Western Pacific

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- Kenya
- Lebanon
- Micronesia (Federated States of)
- Norway
- Saudi Árabia
- Seychelles
- Singapore
- Turkey
- United Arab Emirates (the)
- United Kingdom of Great Britain and Northern Ireland (the)
- Uruguay

WHO Expert Advisory Think Tank

In striving for excellence, WHO has established an advisory think tank inviting global experts to advise and support the continued development of data.who.int.

For more information or to partner with us, please contact onestopdata@who.int

Photo Credits 4 © WHO / Sebastian Meyer WHO Mobile Clinic in Duhok

7 - cc Unsplash / @tbelabuseridze Preparing for the Nyepi day ceremony. Ubud, Indonesia

18 © WHO / Lindsay Mackenzie 16 September 2020: A nurse works in the room of a COVID-19 patient at the St. Orsola-Malpighi Polyclinic in Bologna, Italy.

20 © WHO / Rob Holden WHO Ebola response Incident Manager, Abdou Salam Gueye on a helicopter.

30 - © WHO / Blink Media - Nana Kofi Acquah Kenneth Owusu Frimpong, a Disease Control Officer, delivers COVID-19 samples for testing at the Veterinary Services Directorate in Accra, part of which has been repurposed to provide COVID-19 testing services.

40 - Satellite map of European cities night. N.A.S.A. Image modified.

47 - © WHO / Yoshi Shimizu A team of health workers provide vaccination outreach service to remote villages in Fiji.

48 © WHO / Yoshi Shimizu

A community health worker takes samples of mosquitoes collected from communities which is part of controlling vector-borne diseases at a hospital in Tuvalu.

54 - cc Unsplash / @klim11 Watch.

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62 - cc Unsplash / ben_wong_31 In front of the Sensoji Temple in Tokyo.

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83 © WHO / Blink Media - Lisette Poole Fabiana Zepeda Arias is the chief of nursing programs for the Mexican Institute of Social Security (IMSS).



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