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Wellcome Global Monitor

How Covid-19 affected people's lives and their views about science

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GALLUP

Acknowledgements

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Cover image:

Melanie, March 2020
Johannah Churchill

I am a nurse as well as a photographer. I took this portrait of my colleague Melanie back at the start of the pandemic as she was making preparations for the opening of a local Covid clinic. It is taken in Wandsworth where we both worked together.

Summary of key findings

During late 2020, when coronavirus cases were surging in several regions around the world, the Wellcome Global Monitor surveyed more than 119,000 members of the public in 113 countries and territories. It asked about the impact of the pandemic on their lives, whether they supported their government's participation in global efforts to prevent future diseases, and how they viewed their government's handling of scientific advice around Covid-19.

The pandemic had a big impact on people's lives – nearly half of people globally said it had affected their lives 'a lot'.

- Eighty per cent of adults worldwide said that the coronavirus had affected their lives to some extent, with nearly half (45%) saying it had affected their lives 'a lot' and a third (35%) saying it had affected their lives 'some'. Fewer than one in five (19%) said it had not affected their lives at all.
- Globally, one in three people who had jobs at the beginning of the pandemic (33%) said they had lost their job or business because of the coronavirus situation, while about half said they had to stop working temporarily (53%), worked fewer hours (50%) or received less pay (53%) because of Covid-19[A].

The impact of Covid-19 has been uneven across the world.

- Forty-five per cent of people in low/lower-middle-income countries lost a job/business due to Covid-19 compared to just 10% in high-income countries.
- Worldwide, around four in ten workers in the bottom two income quintiles in their country said they had lost a job or business due to Covid-19, compared to a little over two in ten (23%) among those in the top fifth income quintile.

Globally, people were more likely to express a high degree of trust in science and scientists in 2020 than they were in 2018: there was a 10-percentage-point increase in people saying they trust science in general 'a lot', while the percentage who said they trust scientists in their country 'a lot' rose nine percentage points.

- The percentage who said they trust both science and scientists 'a lot' rose by at least 10 percentage points in three regions: East Asia (predominantly China), Latin America and Eastern Europe — regions where this proportion was relatively low in 2018. However, this percentage either did not rise or declined in two other regions where it had also been low in 2018: the Russia/Caucasus/Central Asia region and Sub-Saharan Africa.
- Trust in science rose most substantially between 2018 and 2020 among those who said they have 'some' knowledge of science (39% in 2018 to 48% in 2020) and those that knew 'not much' or 'nothing at all' about science (25% in 2018 to 33% in 2020). Among people who said they know 'a lot' about science, trust rose only marginally, although the starting point was at a higher level, rising from 66% in 2018 to 69% in 2020.

Perceived knowledge of science and confidence in government influences trust in science.

- As highlighted in the first Wave of the Wellcome Global Monitor, public trust in science and scientists is influenced by a range of factors at individual and country levels. One of the largest of these is the effect of science education, and another is how much people think they know about science. In 2020, 63% of people who said they know a lot about science said that they have 'a lot' of trust in scientists compared to 37% of those who said 'not much' or 'nothing at all' about how much they knew about science. Perhaps it is no surprise, then, that in 2020 trust in scientists rose, possibly as a result of Covid-19 moving the public closer than ever to the work of scientists fighting against the pandemic.
- However, a rise in trust has not been evident everywhere, and, as in 2018, there are large regional variations. In Sub-Saharan Africa, where trust in science went down between 2018 and 2020, only 19% expressed a high level of trust in scientists, the lowest level in the world. This can be contrasted with 62% in Australia/New Zealand, where trust was highest. Another significant factor affecting trust is how the public felt about their national leadership, challenging the idea that science exists outside of a political context; in 2020, people who had confidence in their national government were 13 percentage points more likely to trust scientists in their country 'a lot' compared to people who did not have confidence in their national government (44% vs 33%)[B].

Doctors and nurses are most likely to be seen as basing coronavirus-related decisions on scientific advice 'a lot' compared to WHO or people's national governments.

- Worldwide, more than six in ten people (63%) said doctors and nurses base decisions about coronavirus on scientific advice 'a lot'. This figure fell below 50% for the other four sources in the survey: the World Health Organization (48%), people's national government (41%), their friends and family (38%) and religious leaders (23%). However, more than 70% felt that each source – except religious leaders – bases these decisions at least somewhat on scientific advice.
- People in Australia/New Zealand were the most likely compared to those in other regions to say that all five potential sources of advice base their decisions on scientific advice 'a lot', while those in Russia/Caucasus/Central Asia were the least likely to respond in this way.

Globally, only a quarter of the public said that their government values the opinions and expertise of scientists 'a lot'.

- One in four people (25%) worldwide said leaders in their national government place 'a lot' of value on the opinions and expertise of scientists, though an additional 35% said government leaders place 'some' value on them. Nearly three in ten (28%) felt their government does not place much or any value on scientists' opinions.
- In 25 of the 113 countries surveyed, including eight in Eastern Europe and six in Latin America, people were significantly more likely to say their government leaders place little or no value on scientists' opinions than to say leaders place 'some' or 'a lot' of value on them.
- Across all 113 countries and territories included in 2020, only a minority said leaders in their government value the opinions and expertise of scientists 'a lot'.
- People's belief that their government values the opinions and expertise of scientists was most prevalent where overall confidence in government was highest.

The majority of people worldwide agree ('strongly'/'somewhat') that their government should spend money to help countries prevent and cure diseases wherever they occur. In what seems to be a contradictory result, the majority also agree that their government should spend money on prevention and cures only if their own people are at risk.

- Two-fifths (42%) globally strongly agree that their government should spend money to help countries prevent and cure diseases wherever they occur, and half (51%) also strongly agree that their government should spend money on preventing and curing diseases only if they pose a risk to the people in their country.
- There are large regional disparities in views about this. Most South Asian people agree with both statements, while people in East Asia and Northern America are more inclined to agree that their government should spend money to help countries prevent and cure diseases everywhere. Those living in South East Asia and Russia/Caucasus/Central Asia are the most likely to agree that their government should spend money to prevent and cure diseases only if they pose a risk to their own people.

Endnotes

A. These figures on the economic impact of Covid-19 exclude respondents who said 'Does not apply/No job.'
B. Please note this finding is taken from the Gallup World Poll and is not reported on in the main report.

Introduction

The Covid-19 crisis has tested governments and healthcare systems worldwide as they work to limit the virus's spread and treat the millions who have been infected. At the same time, it has presented the scientific community with the urgent task of developing reliable diagnostic tests and treatments, as well as safe and effective vaccines that could end the pandemic. An equally challenging aspect is that the situation has called for coordinated responses among billions of people to adhere to government guidelines and recognise the importance of their role in managing the threat.

This coordination between scientists, healthcare officials and populations – or the lack of it – may have influenced the perceptions of science's role in combatting diseases in ways that have implications for future outbreaks. In 2020, the Wellcome Global Monitor sought to better understand how this crisis has affected people around the world and how their experiences may have influenced their trust of those involved in addressing it – most notably, scientists and the scientific community in each country, as well as healthcare workers and government officials. The Monitor also addressed questions that have critical implications for the management of future disease outbreaks by asking about:

- the extent to which people feel different sources of guidance during the pandemic – including those of their government, healthcare workers and religious leaders – base their decisions on scientific advice
- people's views regarding their government's involvement in combatting future disease outbreaks wherever they occur

Wellcome believes that science is a global endeavour and has advocated for equitable access to Covid-19 vaccines and treatments around the world since the start of the pandemic. However, poor decisions and slow responses in many countries have contributed to protracted outbreaks[1,2,3]. Several high-income countries, including some in the G7 and G20, have not fully supported a global response[4]; as a result, the vast majority of people in low- and middle-income countries have not had access to vaccines in 2021.

Data on public support for global efforts to prevent and control disease – and how that support may relate to people's experiences during the pandemic – may help leaders make more informed decisions about contributing to such efforts moving forward. Just as importantly, understanding how people around the world view science and scientists is critical to efforts to ensure widespread public attention to and compliance with scientific recommendations in future crises.

The 2020 Wellcome Global Monitor gathered data in 113 countries during the pandemic.

The findings presented in this report are based on nationally representative surveys in 113 countries and territories conducted in 2020 and early 2021. Data collection in most countries took place between September and early December of 2020, a period in which, according to data compiled by the World Health Organization (WHO), coronavirus cases surged in several regions[5]:

- In the Americas, the number of new cases gradually rose from a low point in early September through to early November, then rose much more sharply between mid-November and mid-December. The United States accounted for most of the new cases and deaths in the region during this period.
- In the Eastern Mediterranean region, which includes the Middle East and North Africa (MENA) as well as Afghanistan and Pakistan, new cases rose steadily from a low point in late July to a peak in mid-November before beginning a rapid decline.
- In the European region, the number of new cases remained low for much of the summer in 2020 before climbing abruptly in late October, then began a gradual and uneven decline for the remainder of the year.
- In the Southeast Asia region (which includes India and Bangladesh in WHO's category), new cases and deaths climbed steadily through the summer months before peaking in mid-September and then declining until the end of 2020.

Most data were collected prior to the WHO's first emergency-use vaccine validation on 31 December 2020[6]. However, survey periods in some countries extended from December 2020 into January or February 2021, with possible implications for the results. These countries comprise several Latin American countries, including Argentina, Brazil, Chile, Costa Rica, Mexico and Uruguay, and eight countries in other global regions: Croatia, India, Iraq, Kazakhstan, Lithuania, Malaysia, Nepal and Thailand[7].

Notably, the timing of the data collection may have affected the responses to Covid-19-related questions. For example, in countries and territories where data collection occurred later, people had had more time to experience consequences of the pandemic (whether economic, health-related or otherwise). Further, many of those interviewed in December 2020 or early 2021 probably knew that vaccine approval was imminent or had already occurred, which may have influenced their overall trust in science and scientists or their perception that leaders in the healthcare community base Covid-19 decisions on scientific advice. However, with conditions changing rapidly around the world during this period, it is difficult to identify these effects in the data.

Endnotes

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7. See Appendix B, which shows the country dataset details for each country's specific field period.

Methodology

The Wellcome Global Monitor Covid-19 study was conducted as part of the Gallup World Poll and includes results from representative surveys in 113 countries and territories carried out in 2020 and early 2021, with approximately 1,000 adults aged 15 and older interviewed per country. Notably, the results for questions specifically about Covid-19 are unavailable in China, Australia, New Zealand and Japan. However, these countries are included in the analyses of the answers to more general questions on trust in science and other institutions.

For the results based on samples within each country, the margin of sampling error ranges from +/-1.1 to +/-5.5 percentage points at the 95% confidence level. See the Methodology report for full details.

Trend comparisons with the 2018 regional results include only those constituent countries which were subsequently surveyed in 2020. Therefore the 2018 regional results will not be the same as those quoted in the 2018 Wellcome Global Monitor since some of those countries weren't included in 2020.

For the full Methodology report, see the Methodology Report.

A note on Covid-19

The Covid-19 pandemic required significant changes to Gallup's mixed-mode approach of using face-to-face and phone surveys for global data collection, resulting in all Wellcome Global Monitor interviews being conducted entirely via telephone in 2020. As a result, the 2020 Monitor included fewer countries than the 2018 wave. However, the 113 countries and territories included in this study represent more than 90% of the global population.

The transition from face-to-face to phone interviewing in 82 countries may have affected the responses – a particularly relevant possibility when comparing the 2020 results with those from the same questions in 2018. Statistical analysis of the items measuring trust in science and scientists discussed in Chapter 3 indicates that the change in survey mode probably did have some effect in these countries. However, the precise extent and direction of that effect are difficult to determine due to a range of factors such as changes in sample composition and how the pandemic affected responses. See Appendix A for a more detailed discussion of possible mode effects, and Appendix B for more information about Covid-19 and policy responses in each country during its data collection period.

Survey questions discussed in this report

Effects of Covid-19

- In general, to what extent has your own life been affected by the Covid-19 situation?
- Have you experienced each of the following as a result of the Covid-19 situation?
  - Lost your job or business
  - Temporarily stopped working at your job or business
  - Worked less hours at your job or business
  - Received less money than usual from your employer or business

Global efforts to prevent and cure diseases

- For each statement, please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree:
  - After the Covid-19 crisis ends, the government of [this country] should spend money to help other countries prevent and cure diseases wherever they occur.
  - After the Covid-19 crisis ends, the government of [this country] should spend money on preventing and curing diseases only if they pose a risk to people in this country.

Views of science amid Covid-19

- In general, would you say that you trust science a lot, some, not much, or not at all?
- How much do you trust each of the following?
  - Science
  - Scientists in this country
  - The national government in this country
  - People in your neighbourhood
  - Journalists in this country
  - Doctors and nurses in your country
  - People who work at charitable organisations or NGOs in this country
- How much do you, personally, know about science? Do you know a lot, some, not much, or nothing at all?
- In general, how much do you think each of the following make decisions about Covid-19 based on scientific advice?
  - The national government
  - Friends and family
  - The World Health Organization
  - Doctors and nurses in this country
  - Religious leaders
- In general, how much do you think the leaders in the national government value the opinions and expertise of scientists?

Chapter 1: Covid-19's uneven impact around the world

The José López Portillo and Valle de San Lorenzo colonies in Iztapalapa, Mexico City, Mexico, on 11 August 2020. Soap and water dispensers were installed in order to encourage passers-by to wash their hands and listen to information about preventive measures to avoid contracting coronavirus.

Gerardo Vieyra/NurPhoto via Getty Images

Chapter 1: Covid-19's uneven impact around the world

The Covid-19 pandemic has created devastating public health and economic crises in most countries[8]. This chapter presents Gallup's research on how broadly and severely the pandemic has impacted people's lives around the world and explores Wellcome Global Monitor data on how this shared experience may have influenced global opinions on science and its role in managing and preventing such events. As previously stated, it is important to note that the virus's spread and each country's corresponding lockdown measures at the time of data collection probably influenced people's responses about the pandemic's effects; Appendix B includes information on such conditions in each country during the data collection period.

Four out of five people around the world said Covid-19 has affected their lives.

Eighty per cent of adults worldwide said that coronavirus has affected their lives to some extent, with nearly half (45%) saying it has affected their lives 'a lot' and a third (35%) saying it has affected their lives 'some'. Fewer than one in five (19%) said it has not affected their lives at all. Countries where people were most likely to say their lives have not been affected were predominantly in three more rural regions: Sub-Saharan Africa, Southeast Asia and Central Asia. Further, in countries where people were most likely to say their lives have not been affected – including Laos (61%), Ivory Coast (44%), Tanzania (41%), Benin (40%) and Mali (38%) – Covid-19 caseloads were low and government restrictions (as measured by the Oxford Stringency Index[9]) were relatively light at the time of data collection (see the 'Country dataset details' table in Appendix B).

Covid-19's economic impact was most severe in lower- and middle-income countries*.

Globally, one in three people who had jobs at the beginning of the pandemic (33%) said they lost their job or business because of the coronavirus situation (Chart 1.1), while about half said they had to stop working temporarily (53%), worked fewer hours (50%) or received less pay (53%) because of Covid-19.

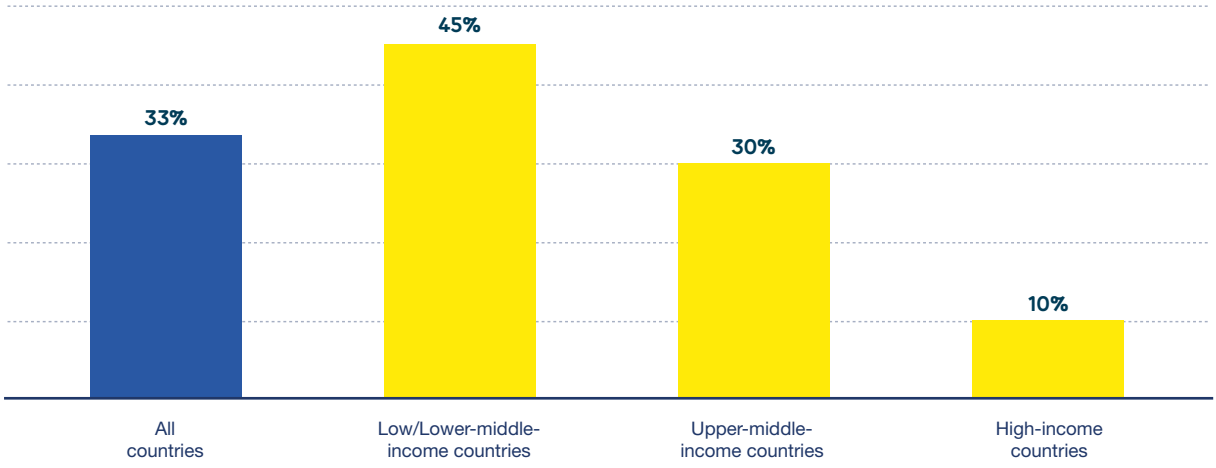
Job losses were most common in low- and lower-middle-income countries, where economic activity is based less on knowledge work that can be done remotely[10]. Governments in these countries also had fewer resources to cushion Covid-19's economic impact through fiscal spending – for example, by providing employers with subsidies to retain workers through necessary lockdown periods[11].

*Figures presented in this section on the economic impact of Covid-19 exclude respondents who said 'Does not apply/No job'.

Chart 1.1:
Workers who lost a job or business due to Covid-19, by country income group

Percentage of workers who answered 'yes'.

Have you [lost your job or business] as a result of the Covid-19 situation?



More than half of the people in seven countries who said they were working at the beginning of the pandemic reported losing a job or business because of Covid-19: the Philippines (66%), Kenya (65%), Zimbabwe (62%), Zambia (58%), Thailand (58%), Peru (57%) and India (52%).

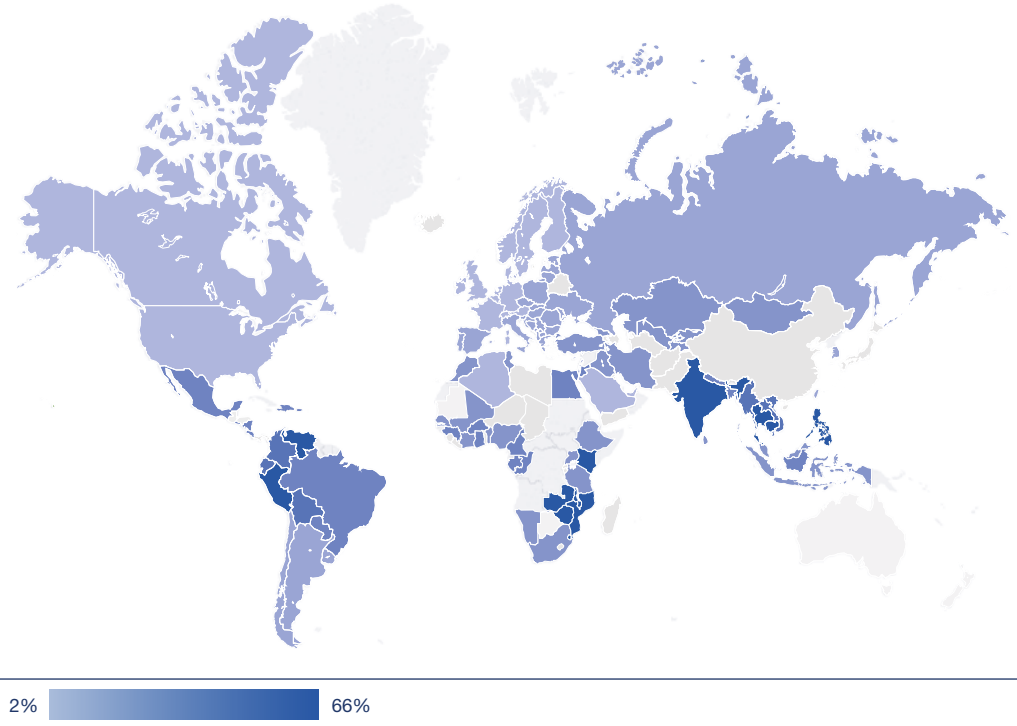
- In the Philippines, two-thirds of workers (66%) reported a job loss due to the pandemic. A recent Oxford Economics analysis found the Philippines to be the country most vulnerable to longer-term economic impacts from Covid-19, citing factors such as pre-existing skill shortages and the country's reliance on tourism[12].
- About two-thirds of workers in Kenya (65%) also reported losing a job or business due to Covid-19. Unfortunately, widespread poverty and weak social safety nets in many low-income countries often mean that job loss translates into problems like food insecurity[13]. In 2020, 72% of Kenyans said there had been times in the past year when they had not had enough money to buy food for themselves or their families – the highest annual percentage since Gallup began tracking this measure in 2006.
- India is the largest of the seven countries where more than half of workers reported losing their job or business: 52% of Indians who were employed at the onset of the pandemic said they lost their livelihoods. The Indian economy consists primarily of small and medium-sized enterprises, many of which were hit particularly hard by the crisis[14]. The government estimates that the country's GDP contracted by 7.7% in the 2020-21 fiscal year, the worst economic downturn in 40 years[15].

The map in Figure 1.1 is shaded according to the proportion of those working at the start of the pandemic who lost jobs or businesses in all countries for which these data are available, from a low of 2% in Austria to a high of 66% in the Philippines. Darker shades indicate a higher proportion of job losses; the question was not asked in countries shaded grey.

Figure 1.1: Map of workers who lost a job or business due to Covid-19, by country

Percentage of workers who answered 'yes'.

Have you [lost your job or business] as a result of the Covid-19 situation?



In addition to asking about job or business losses, the Wellcome Global Monitor asked about three other potential economic consequences of Covid-19: loss of income, having hours at work cut and having to stop working temporarily (as with furloughed workers). In four low-income regions – South Asia, Sub-Saharan Africa, Southeast Asia and Latin America – workers reported experiencing at least two of these four economic consequences on average. By contrast, Western European workers averaged less than one. The proportions of workers who experienced each consequence globally and by region are presented in Table 1.1.

Table 1.1: Economic consequences suffered by workers due to Covid-19, by region

Percentage of workers who answered 'yes'.

Have you experienced each of the following as a result of the Covid-19 situation?

	Lost your job or business	Temporarily stopped working at your job or business	Worked fewer hours at your job or business	Received less money than usual from your employer or business
WORLD	**33%**	**53%**	**50%**	**53%**
South Asia	50%	63%	54%	63%
Southeast Asia	43%	57%	60%	65%
Sub-Saharan Africa	36%	63%	62%	64%
Latin America	30%	57%	55%	56%
Middle East/North Africa	24%	58%	54%	49%
Russia/Caucasus/Central Asia	15%	39%	37%	37%
Eastern Europe	12%	35%	33%	34%
East Asia	12%	29%	35%	29%
Northern America	11%	37%	38%	32%
Western Europe	7%	24%	29%	24%

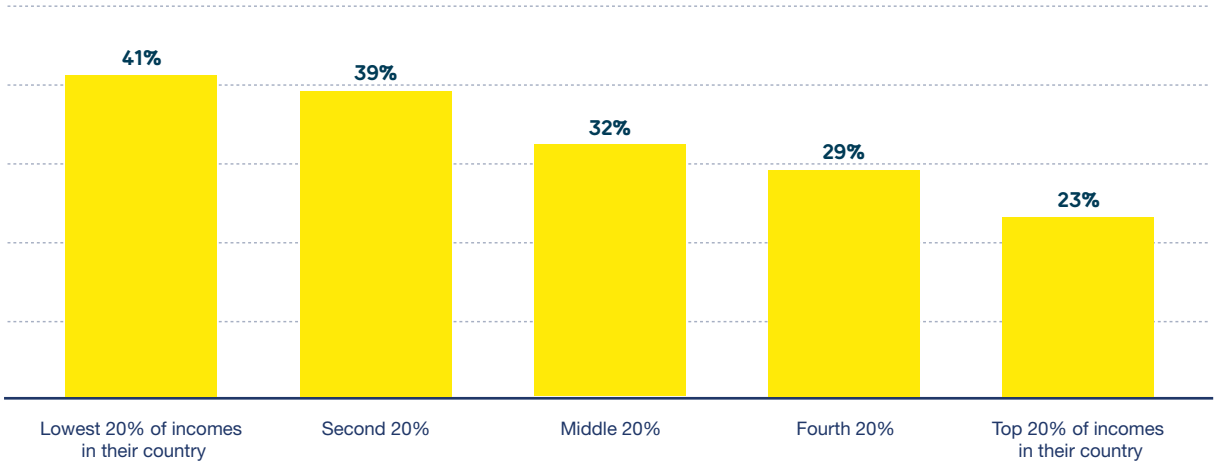
Note: Question not asked in Australia/New Zealand.

The pandemic exacerbated economic inequality across and within countries – i.e., economic consequences were most widespread not just in low-income countries but among people with low incomes within countries. People were categorised into five similarly sized groups using income data from each country and territory – from the 20% with the lowest household incomes to the 20% with the highest. As shown in Chart 1.2, worldwide, about four in ten workers in the bottom two income quintiles in their country said they had lost a job or business due to Covid-19, compared to a little over two in ten (23%) among those in the top one-fifth.

Chart 1.2:
Workers who lost a job or business due to Covid-19, by within-country income quintile

Percentage of workers who answered 'yes'.

Have you [lost your job or business] as a result of the Covid-19 situation?



These differences were greater in regions and countries where income inequality was high prior to the pandemic, demonstrating how Covid-19 has worsened existing economic disparities. For example, in Latin America, workers in the bottom 20% of their country's income distribution were about three times as likely as those in the top 20% to have lost a job – 44% compared to 14%, respectively. In the US, the most unequal high-income country outside Latin America* (according to these countries' Gini coefficients, a common measure of income inequality), about one in four workers (24%) in the bottom income quintile said they had lost a job or business as a result of Covid-19, compared to just 3% of those in the top quintile.

*Based on the World Bank's estimates of the Gini coefficient, a common measure of income inequality, for each country. See: https://data.worldbank.org/indicator/SI.POV.GINI

Endnotes

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Chapter 2: Public support for global spending on preventing and curing diseases

Indonesia vaccinates indigenous communities

SERANG, INDONESIA – AUGUST 20: Vaccine facilitators try to persuade a Baduy family that they meet at their house due to a lot of refusal by the Baduy people to get vaccinated because it is against their customary rules on August 20, 2021 in Serang, Indonesia. The Baduy indigenous people have only reported two cases of Covid-19, believing that their traditional customs have protected them.

The vaccination programme carried out by the Indonesian government received a positive response from the traditional elder of the Baduy community, Jiro Saija, who had implemented the vaccine, but he advised that the vaccine could not be forced on the Baduy community, some of whom have refused because they still believe they could prevent the spread of coronavirus through traditional medicine.

Oscar Siagian/Stringer

Chapter 2: Public support for global spending on preventing and curing diseases

As with other problems, such as climate change, the Covid-19 crisis has highlighted the need for international cooperation to prevent and mitigate threats that affect the entire global population[16]. The pandemic has shown how easily a virus can spread in a world where modern transportation allows people to routinely travel between countries and regions, as well as how broadly the health and economic effects of poor preparedness can be felt worldwide.

Some development and financing experts, including the High Level Independent Panel (HLIP) on financing the global commons for pandemic preparedness and response established by the G20 in January 2021[17,18], have called for new governance mechanisms and pooled international financing for global problems like pandemics. Policy analysts have argued that pandemic preparedness constitutes a 'global public good'[19] – that is, a cross-border effort that contributes to health progress but is not adequately produced by market forces – and that new arrangements for providing global public goods in health are necessary[20,21,22,23].

In view of the need for international coordination in response to global-level crises like Covid-19, the Wellcome Global Monitor tested people's support for their country's participation in international efforts by asking about the extent to which they agreed with the following two statements:

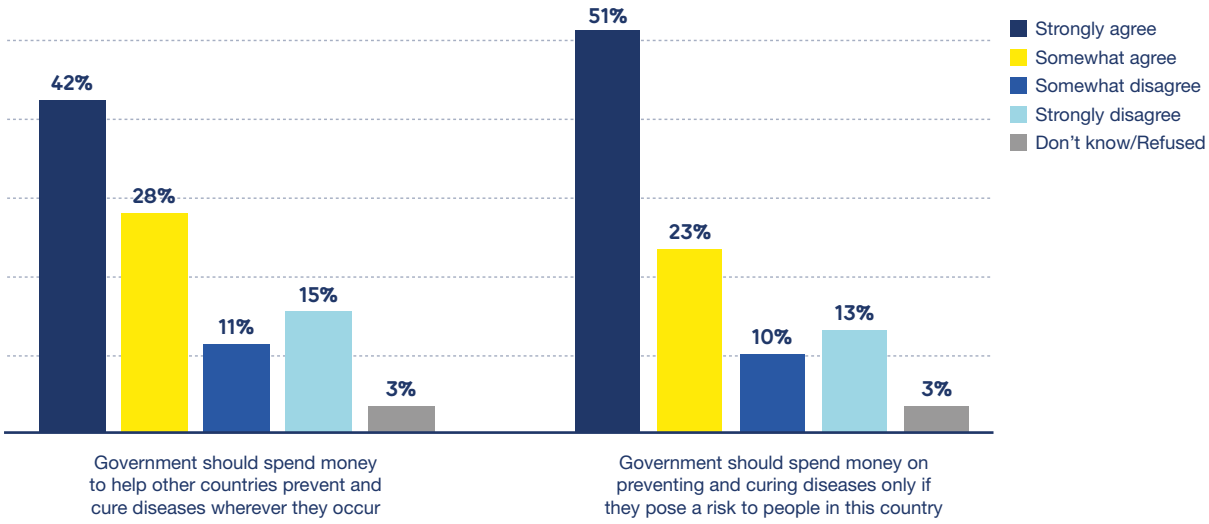
1. After the Covid-19 crisis ends, the government of [this country] should spend money to help other countries prevent and cure diseases wherever they occur.
2. After the Covid-19 crisis ends, the government of [this country] should spend money on preventing and curing diseases only if they pose a risk to people in this country.

As Chart 2.1 reveals, at least 70% of people who answered this question worldwide strongly or somewhat agreed with each item, despite these two opinions, ostensibly at least, contradicting each other. This finding suggests that some people either weren't aware that the statements were mutually exclusive or may not have been comfortable choosing one option over the other.

Chart 2.1: Views on government spending to prevent and cure diseases, global results

Percentage of people who strongly agreed, somewhat agreed, somewhat disagreed or strongly disagreed.

For each statement, please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree.



Note: Due to rounding, percentages may sum to 100% ±1%.

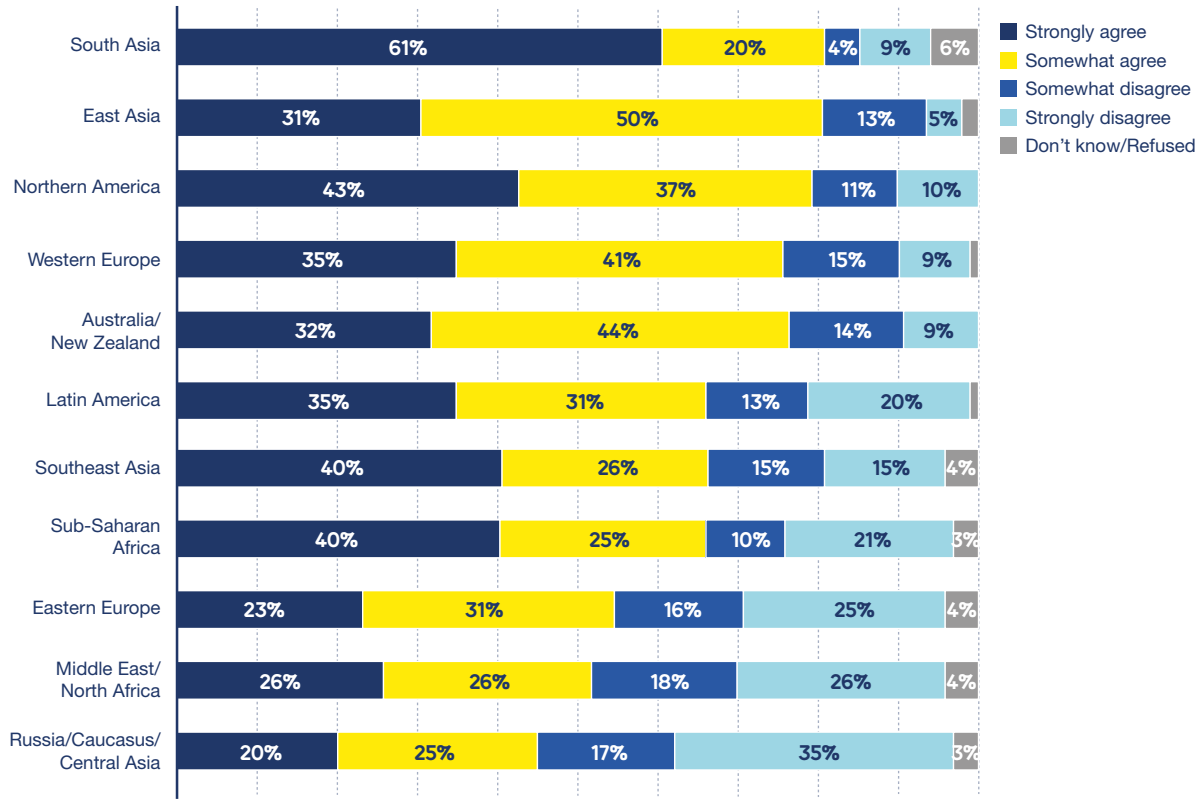
In some regions, including South Asia*, East Asia and Latin America, strong majorities agreed with both statements. For example, while people in South Asia and East Asia were among the most likely to agree that their respective government should spend money to prevent diseases wherever they occur (Chart 2.2), more than three-fifths in both regions also said that their governments should spend money on combatting diseases that only pose a threat to their own country (Chart 2.4).

In other regions, public sentiment leaned more in one direction or the other. Western Europe, Australia/New Zealand and Northern America – high-income regions that include more traditional 'donor' countries** – were among those where people were more likely to say that their government should help wherever needed than they were to say that their government should help only if diseases pose a risk to their population.

Chart 2.2: Views on government spending to prevent and cure diseases wherever they occur, by region

Percentage of people who strongly agreed, somewhat agreed, somewhat disagreed or strongly disagreed.

For each statement (statement 1 of 2), please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree: After the Covid-19 crisis ends, the government of [this country] should spend money to help other countries prevent and cure diseases wherever they occur.



Note: Due to rounding, percentages may sum to 100% ±1%.

*It should be noted that data collection in South Asia took place well before the massive surge in Covid-19 cases that took place in much of the region during the spring of 2021.

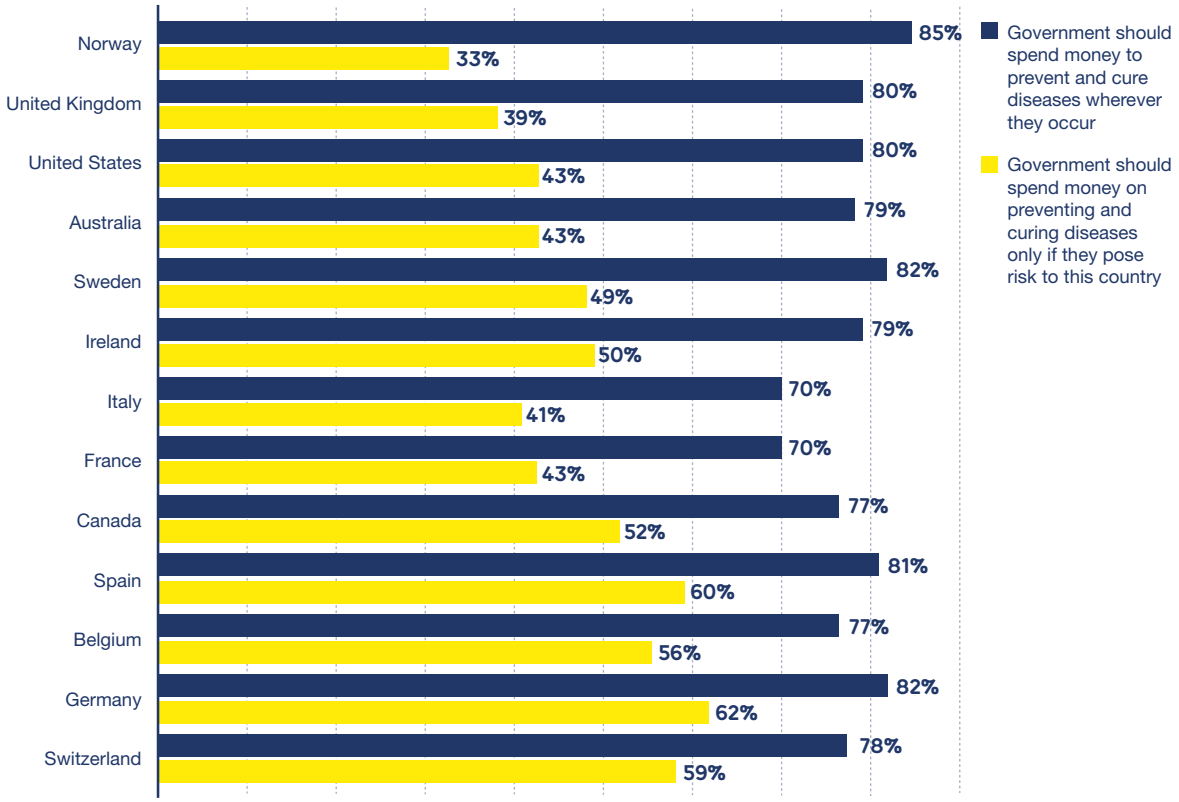
**Defined as countries that contribute the most in official development assistance. See: Aid by DAC members increases in 2019 with more aid to the poorest countries. (2020, April 16). OECD – Paris. https://www.oecd.org/dac/financing-sustainable-development/development-finance-data/ODA-2019-detailed-summary.pdf

In 13 countries within Northern America, Western Europe and Australia/New Zealand, the percentage who agreed that their government should spend money fighting diseases regardless of where those diseases occur was more than 10 points higher than the percentage who agreed that their government should spend money only if the disease threatens their country (Chart 2.3).

Chart 2.3:
Countries where people were more likely to say that the government should fight diseases wherever they occur compared to that the government should fight diseases only if they pose a risk to that country

Percentage of people who strongly/somewhat agreed with each statement among countries with at least a 10-percentage-point gap in agreement.

For each statement (statement 2 of 2), please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree.

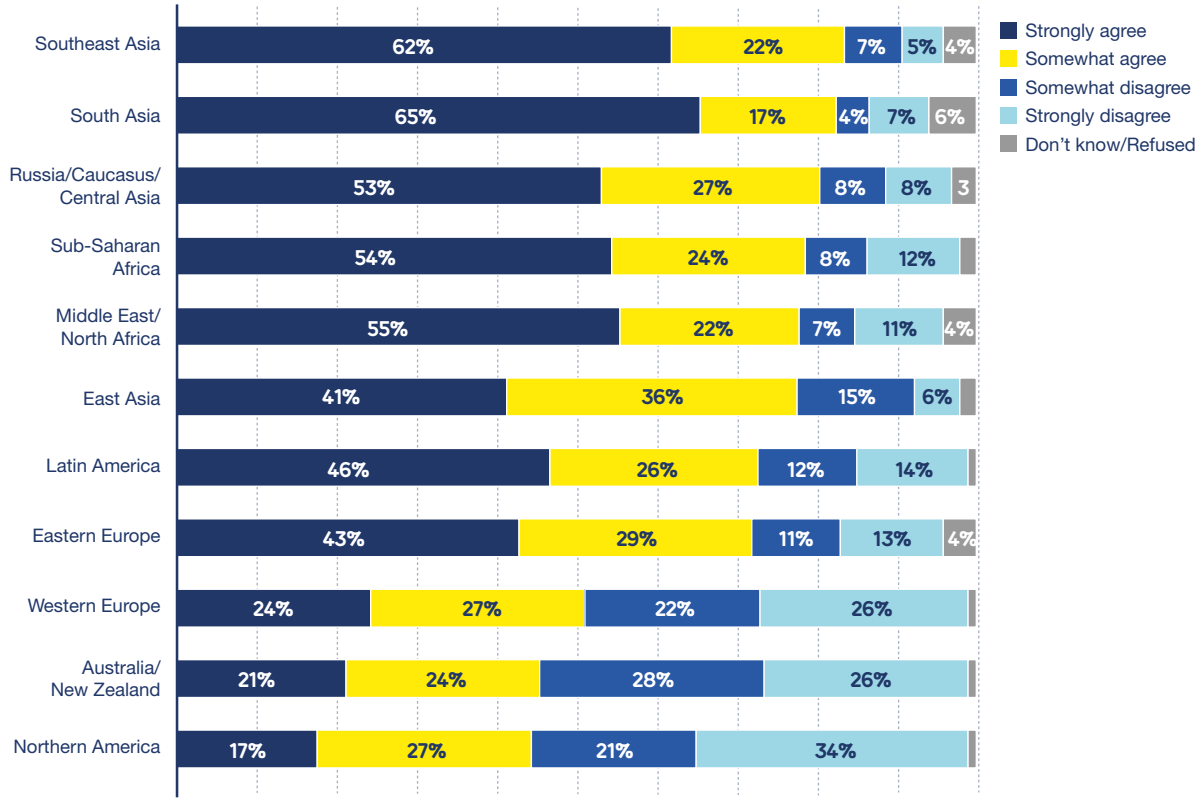


As shown in Chart 2.4, people in Northern America, Western Europe and Australia/New Zealand were the least likely to say that their government should help prevent and cure diseases only if they pose a threat to people in their country. By contrast, people in Southeast Asia, the Middle East/North Africa and Russia/Caucasus/Central Asia regions were considerably more likely to agree with this second statement in the survey than they were to agree with the first.

Chart 2.4:
Views on government spending to prevent and cure diseases only if they pose a risk to that country, by region

Percentage of people who strongly agreed, somewhat agreed, somewhat disagreed or strongly disagreed.

For each statement (statement 1 of 2), please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree: After the Covid-19 crisis ends, the government of [this country] should spend money on preventing and curing diseases only if they pose a risk to people in this country.

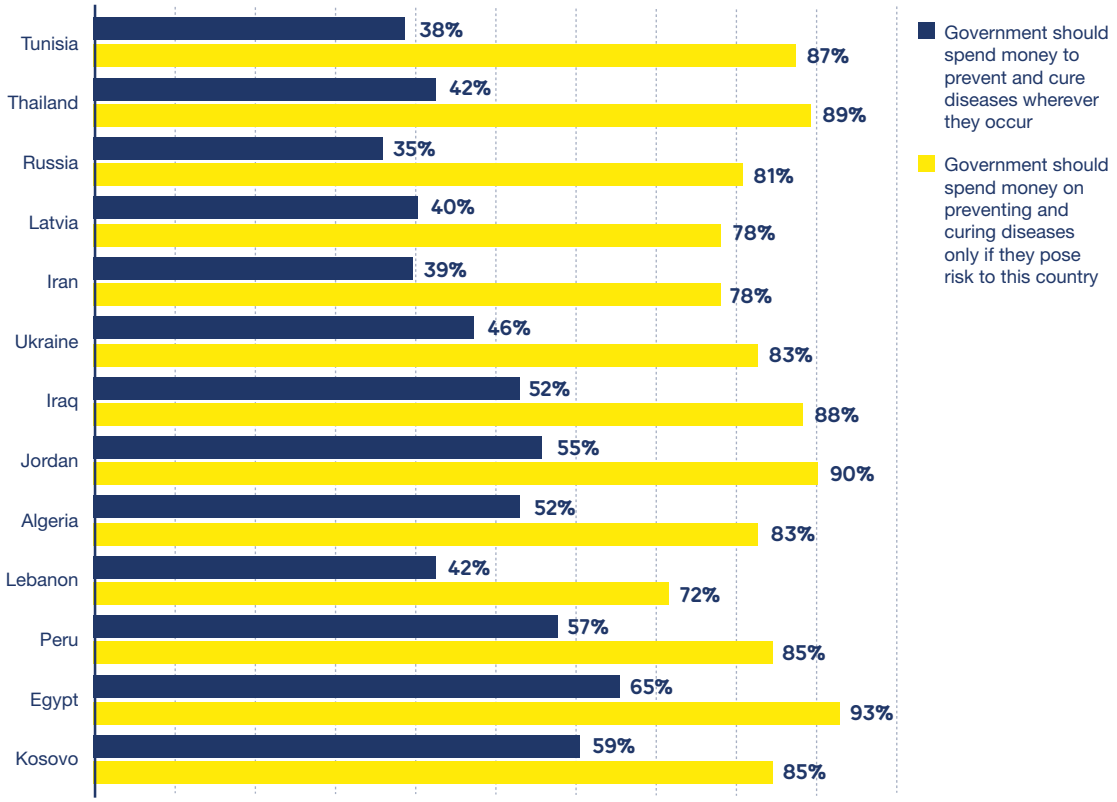


In 13 countries, the percentage who agreed that their government should only spend money on diseases that pose a risk to their country was at least 25 points higher than the percentage who agreed that their government should spend money to help prevent or cure diseases wherever they occur (Chart 2.5). Notably, most of these are middle-income countries* that typically focus on national priorities and development and not on development assistance to other countries.

Chart 2.5:
Countries where people were more likely to say that the government should fight diseases only if they pose a risk to that country compared to that the government should fight diseases wherever they occur

Percentage of people who strongly/somewhat agreed with each statement among countries with at least a 25-percentage-point gap in agreement.

For each statement (statement 2 of 2), please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree.



*All except Latvia are upper-middle-income or lower-middle-income countries. See: World Bank country and lending groups | Data. (n.d.). The World Bank. https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

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Chapter 3: Trust in and perceived value of science amid Covid-19

Gautang, South Africa

Nursing staff wait outside the Steve Biko Academic Hospital in Pretoria. Many of the province's hospitals are full due to the Covid-19 crisis.

James Oatway/Panos Pictures

Chapter 3: Trust in and perceived value of science amid Covid-19

Trust in science and scientists has perhaps never been more important in recent times than during the coronavirus pandemic, as most people have been asked to change their lives in response to recommendations made by the scientific and medical communities. This chapter explores the level of trust people have in science and scientists during the pandemic compared to two years prior and the extent to which people think science informs the decisions of those who offer guidance on Covid-19 – particularly their national government.

Globally, public trust in science and scientists was higher in 2020 than in 2018.

For many people, Covid-19 has highlighted the role of science in fighting disease around the world. Scientists have become more prominent in the media in many countries, providing information and guidance that has affected the day-to-day lives of countless people and ultimately developing vaccines that promise an eventual return to normalcy.

Increased exposure to science and scientists as a result of the pandemic may have influenced public opinion in many countries. Globally, people were more likely to express a high degree of trust in science and scientists in 2020 than they were in 2018: the percentage who said they trust science a lot rose nine percentage points, as did the percentage who place a lot of trust in scientists in their country*.

People's likelihood of trusting doctors and nurses, their national government and people who work at charitable organisations also increased at the global level, though not to the same extent as trust in science and scientists. Notably, the percentage who said they placed a lot of trust in scientists was significantly lower than the corresponding percentage for doctors and nurses in the 2018 study – but in 2020, trust in scientists was about as common as trust in doctors and nurses.

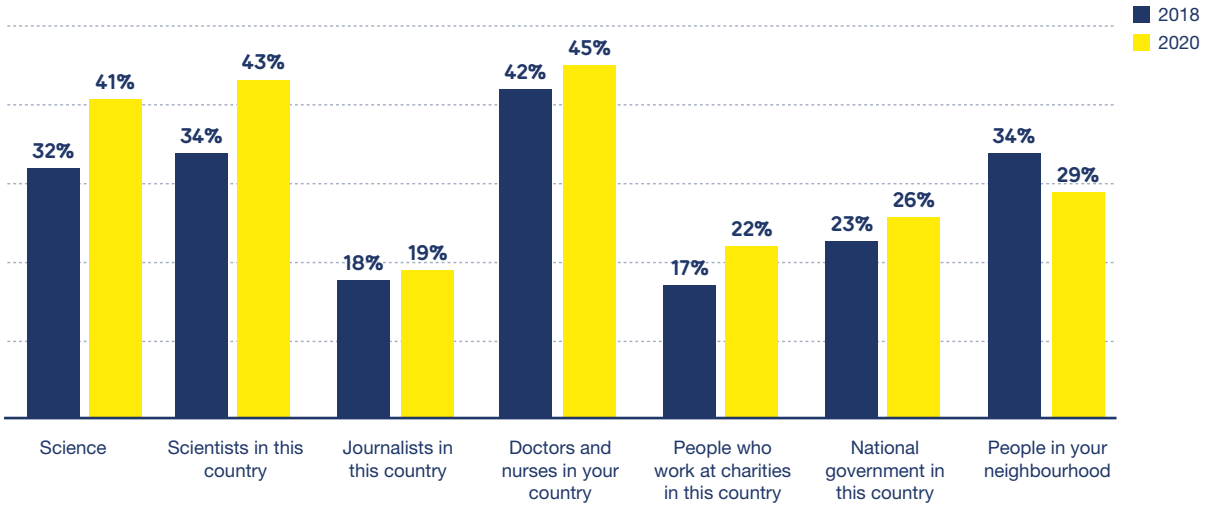
*As noted on page 5, the Covid-19 pandemic made it necessary to change the mode of interviewing in some countries from face-to-face (in-person) in 2018 to telephone in 2020. Statistical analysis of the change indicates that it probably had some effect on the results in these countries (see Appendix A). However, the mode-effect analysis of the items measuring trust in science and scientists indicates that the change probably increased the percentage who said they trusted each 'not at all' in 2020 more than it affected any other response option. This finding suggests that if the mode change had not been necessary, the results for levels of trust in science and scientists may have risen further than the results presented here indicate.

As shown in Chart 3.1, people's neighbours is the only group included in the survey for which trust declined somewhat at the global level, from 34% who said they trust their neighbours 'a lot' in 2018 to 29% in 2020. The percentage who said they trust journalists in their country a lot remained flat over the same period*.

Chart 3.1: Change in trust levels, global results (2018-2020)

Percentage of people who answered 'a lot'.

How much do you trust each of the following? Do you trust them a lot, some, not much, or not at all?



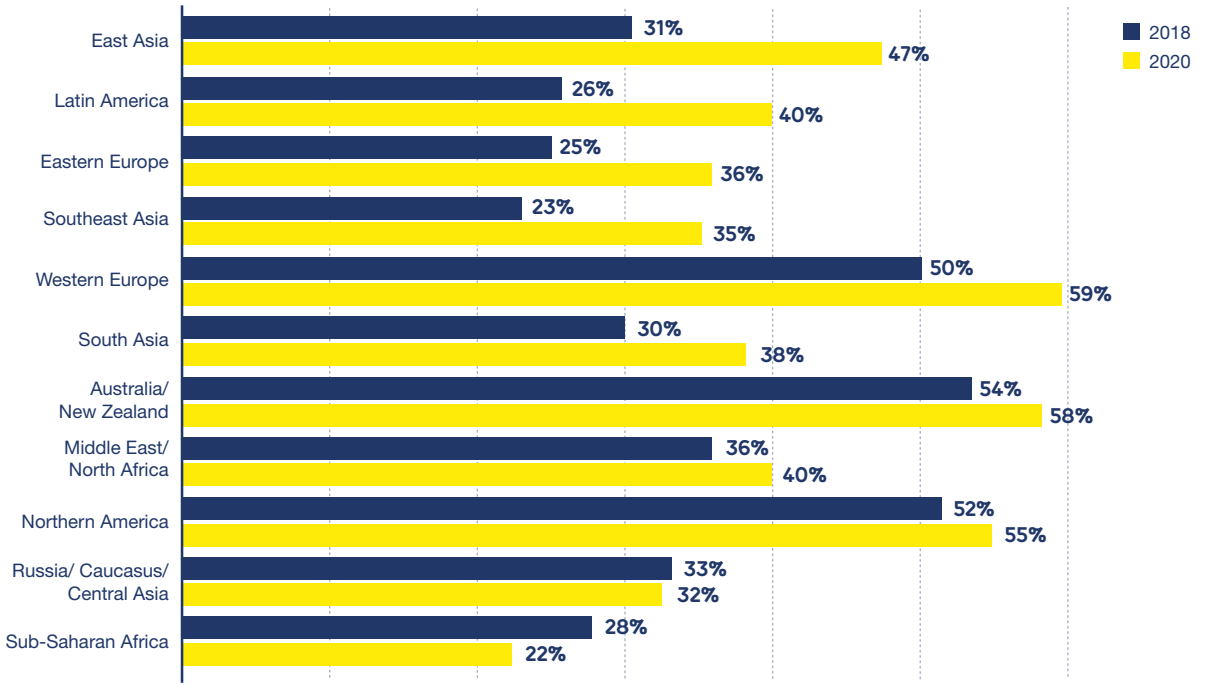
*To compare global results for 2018 and 2020, only the countries included in both studies were used in the analysis. Since fewer countries were surveyed in 2020, that meant excluding several countries from the 2018 results for comparison. Thus, the results presented here are somewhat different from those for the same questions in the 2018 report, where those countries were not excluded.

Chart 3.2 shows that the percentage who said they trust science a lot rose by at least 10 percentage points in four regions: East Asia (predominantly China), Latin America, Eastern Europe and Southeast Asia – regions where this proportion was relatively low in 2018. However, this percentage did not rise in two other regions where it had been low in 2018: the Russia/Caucasus/Central Asia region, where it did not change significantly, and Sub-Saharan Africa, where it declined.

Chart 3.2: Trust in science, by region (2018-2020)

Percentage of people who answered 'a lot'.

In general, would you say that you trust science a lot, some, not much, or not at all?

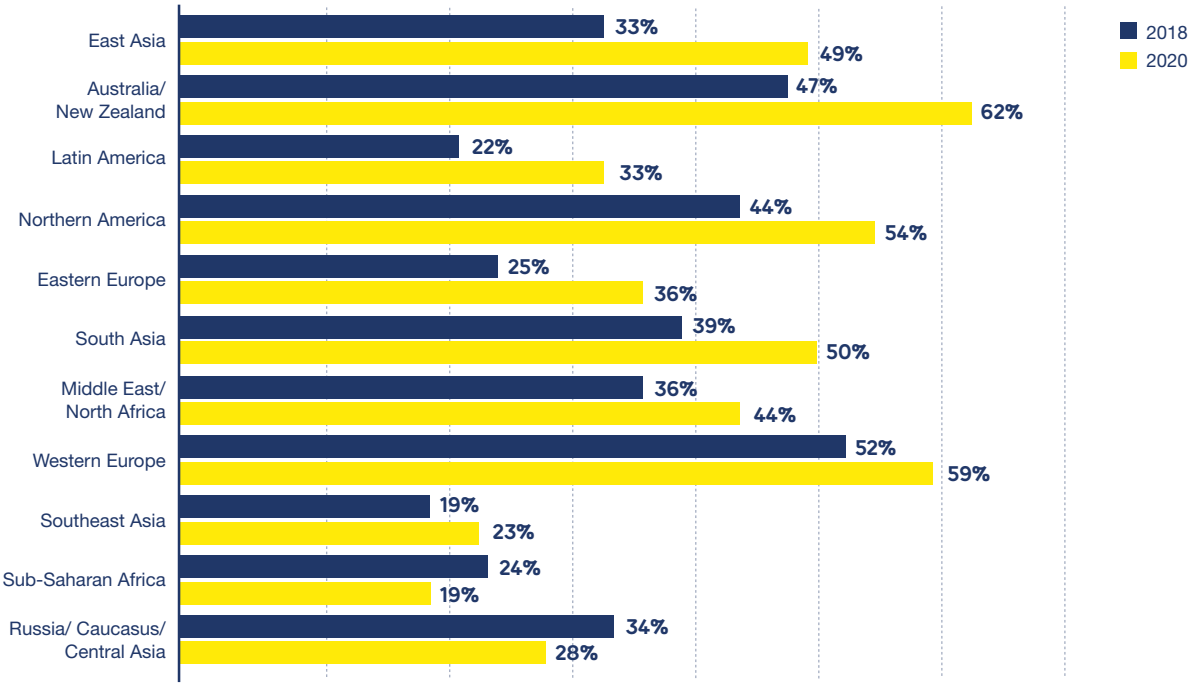


The Wellcome Global Monitor also asked people more specifically about the extent to which they trust scientists in their country. The regional results (Chart 3.3) show a similar pattern to that for trust in science generally (Chart 3.2), with a few exceptions. In Australia/New Zealand and Northern America, the rise was greater for trust in the country's scientists than for science in general. However, the reverse was true in Southeast Asia, where trust in the country's scientists rose more modestly than trust in science overall. In the Russia/Caucasus/Central Asia region and Sub-Saharan Africa, trust in scientists fell somewhat between 2018 and 2020.

Chart 3.3: Trust in scientists, by region (2018-2020)

Percentage of people who answered 'a lot'.

In general, would you say that you trust scientists in your country a lot, some, not much, or not at all?



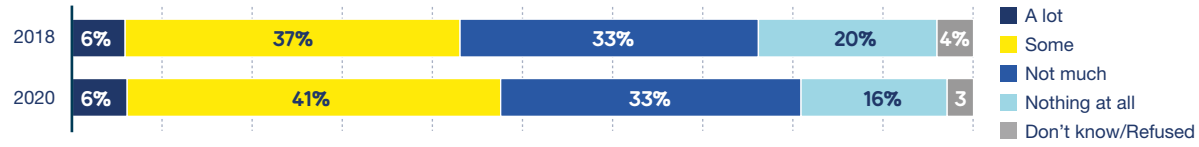
In some cases, people's trust in their country's scientists was more closely related to confidence in the government and national institutions than to their trust in science more generally. In Australia/ New Zealand, for example, people were less likely to trust their respective country's scientists a lot if they believed corruption is widespread in their government (61%) than if they did not perceive there to be widespread corruption (73%). However, perceived corruption makes no difference to their trust in science more generally (65% among both groups).

Self-assessed knowledge of science

In 2018 and 2020, the Wellcome Global Monitor asked people how much they know about science. These results were relatively consistent between the two years, though the proportion who said they know 'some' about science rose somewhat at the global level, from 37% to 41%, with a corresponding drop from 20% to 16% in the proportion saying they know 'nothing at all' (Chart 3.4).

Chart 3.4: Self-assessed science knowledge (2018-2020)

How much do you, personally, know about science? Do you know a lot, some, not much, or nothing at all?



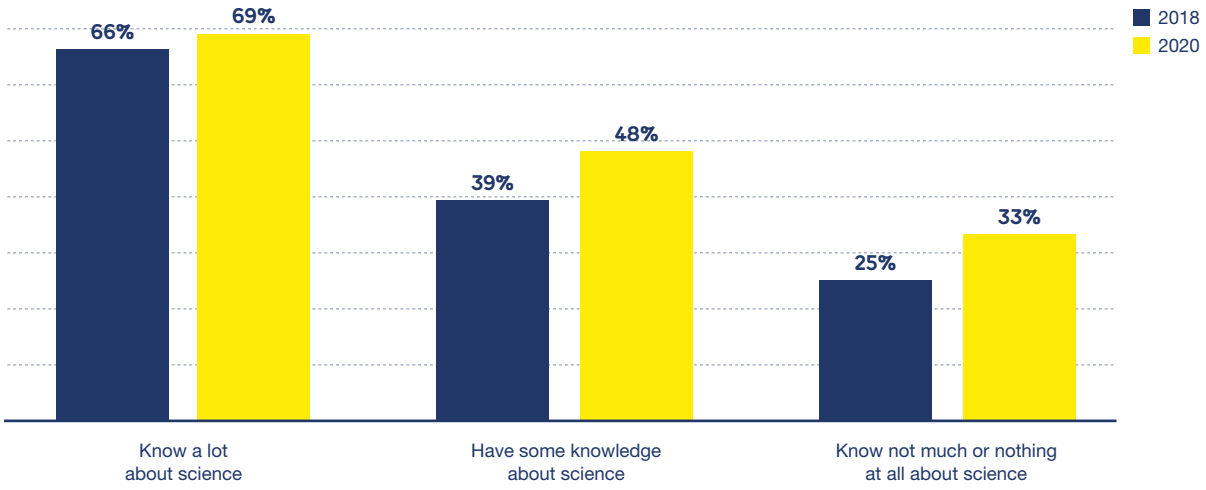
Note: Due to rounding, percentages may sum to 100% ±1%.

In 2018 and 2020, higher levels of science knowledge were associated with greater trust in science. However, as shown in Chart 3.5, trust levels rose most substantially during that period among people who said they had 'some' science knowledge (39% in 2018 to 48% in 2020) or that they knew 'not much' or 'nothing at all' about science (25% in 2018 to 33% in 2020).

Chart 3.5:
Trust in science, by level of science knowledge (2018-2020)

Percentage of people who answered 'a lot'.

In general, would you say that you trust science a lot, some, not much, or not at all?

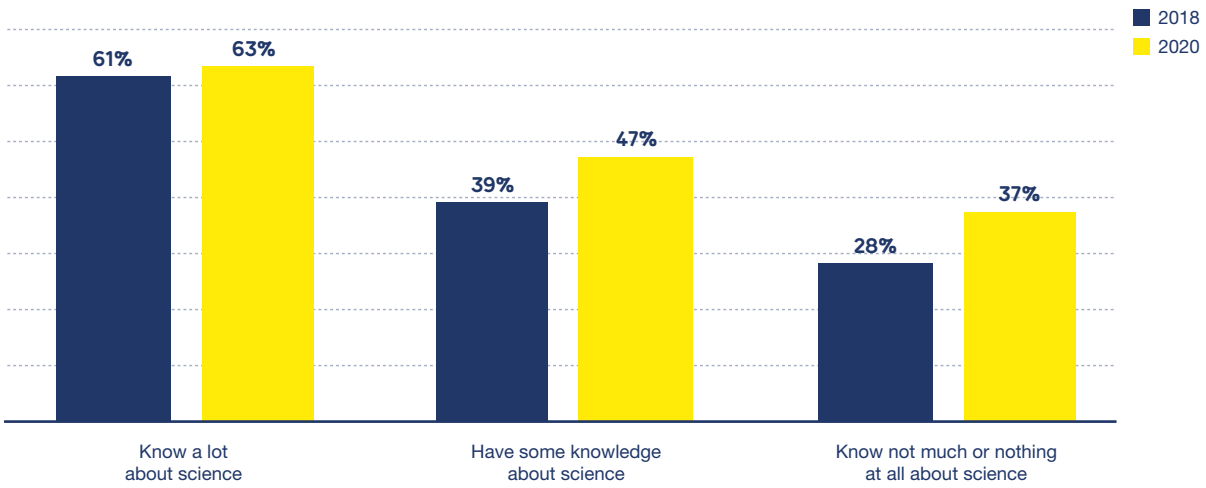


The results are similar for people's trust in scientists in their country. Worldwide, as shown in Chart 3.6, those who said they know a lot about science were not significantly more likely in 2020 than in 2018 to say they trust their country's scientists a lot; in both years, the figure was just over 60%. However, trust levels did rise among those who said they know less about science. In 2018, 28% of people who said they did not know much or nothing at all about science trusted their country's scientists a lot; by 2020, that figure had risen to 37%. There was a similar rise among people who said they know 'some' about science.

Chart 3.6:
Trust in scientists, by level of science knowledge (2018-2020)

Percentage of people who answered 'a lot'.

In general, would you say that you trust scientists in your country a lot, some, not much, or not at all?



The change suggests that views of scientists shifted most among people who previously had less direct experience with science but who may have gained an awareness of its importance in combatting Covid-19. At the global level, 43% of people who said their lives have been affected 'a lot' by the coronavirus situation put a lot of trust in their country's scientists, compared to 38% of those whose lives have been affected 'some' and 34% of those who said their lives have not been affected at all.

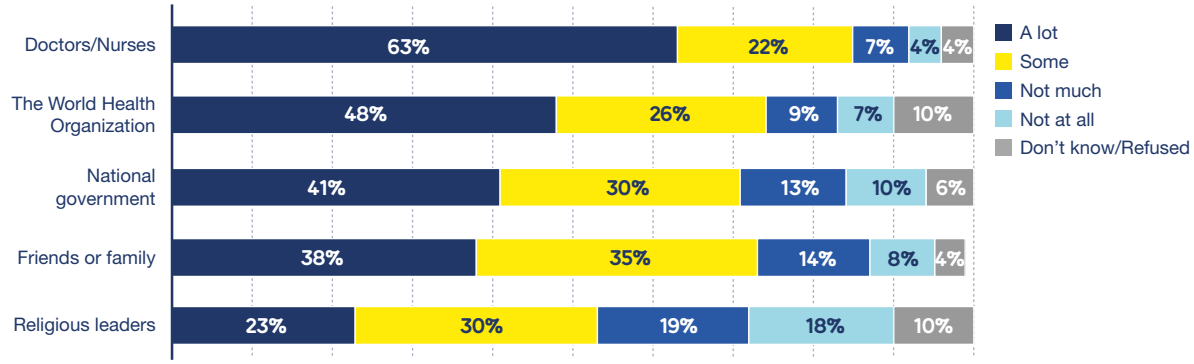
The survey also asked people how much they believe that the sources they have relied on for guidance during the pandemic use scientific advice in their decision-making.

Worldwide, more than six in ten people (63%) said doctors and nurses base decisions about coronavirus on scientific advice 'a lot'. This figure fell below 50% for the other four sources in the survey: the World Health Organization (48%), their national government (41%), their friends or family (38%) and religious leaders (23%). However, more than 70% felt that each source – except religious leaders – bases their decisions at least somewhat on scientific advice (Chart 3.7).

Chart 3.7: Views on whether sources base coronavirus-related decisions on scientific advice, global results

Percentage of people who said 'a lot', 'some', 'not much' or 'not at all'.

In general, how much do you think each of the following make decisions about coronavirus based on scientific advice?



Note: Due to rounding, percentages may sum to 100% ±1%.

This pattern was generally consistent across regions, though people in some regions were more likely than others to say that all five potential sources of advice base their decisions on scientific advice a lot. As shown in Table 3.1, the percentage who said doctors and nurses do so ranged from 84% in Australia/New Zealand to 47% in the Russia/Caucasus/Central Asia region. Notably, the Russia/Caucasus/Central Asia region is also where people's trust in their country's scientists declined most significantly between 2018 and 2020 (see Chart 3.3), pointing to a general lack of faith in the scientific and medical communities' ability to coordinate with national governments to provide sound guidance about Covid-19.

Table 3.1: Belief that sources base coronavirus-related decisions on scientific advice, by region

Percentage of people who answered 'a lot'.

In general, how much do you think each of the following make decisions about coronavirus based on scientific advice?

	Doctors and nurses	The World Health Organization	National government	Friends or family	Religious leaders
Australia/New Zealand	84%	63%	62%	47%	13%
Western Europe	76%	57%	43%	41%	13%
Northern America	75%	57%	25%	38%	15%
Latin America	67%	57%	33%	33%	26%
Southeast Asia	62%	47%	47%	35%	31%
Middle East/North Africa	62%	53%	40%	40%	33%
South Asia	61%	40%	45%	46%	22%
Eastern Europe	58%	46%	29%	40%	14%
East Asia	57%	25%	22%	26%	5%
Sub-Saharan Africa	56%	61%	48%	30%	36%
Russia/Caucasus/Central Asia	47%	42%	40%	35%	24%

Several other findings provide additional insights into people's perceptions of how much influence scientists have on high-level decisions made by national governments and the World Health Organization (WHO) about Covid-19:

About six in ten people in Sub-Saharan Africa (61%) believed the WHO bases its decisions on scientific advice a lot, second only to Australia/New Zealand (63%). And while 10% of people globally said they 'don't know' about the WHO's reliance on scientific advice, just 7% in Sub-Saharan Africa answered this way – which may reflect the prominent role the WHO has played in supporting health systems across the continent[24], including efforts to mitigate the impact of Covid-19[25,26].

In many countries, people were more likely to believe that the WHO bases decisions about Covid-19 on scientific advice than they were to say the same about their own country's government. Table 3.2 shows comparisons between these measures in G20 countries where both questions were asked*. Among these countries, only people in Germany and India were significantly more likely to say that their national government bases decisions about Covid-19 on science than to say that the WHO does. (In Germany, this is largely because of the unusually high level of trust in government rather than a lack of trust in the WHO, while in India, a substantial 18% said they did not know about the WHO's basis for decisions about Covid-19.)

Table 3.2: Belief that the WHO bases coronavirus-related decisions on scientific advice compared with a belief that national governments do so, among G20 countries

Percentage of people who answered 'a lot'.

In general, how much do you think each of the following make decisions about coronavirus based on scientific advice?

	The World Health Organization	National government	Difference
United States	57%	21%	36 pts
Brazil	54%	22%	32 pts
United Kingdom	66%	35%	31 pts
Mexico	68%	39%	29 pts
France	62%	41%	21 pts
Argentina	56%	40%	16 pts
Canada	66%	54%	12 pts
Italy	43%	32%	11 pts
Turkey	49%	38%	11 pts
Japan	22%	11%	11 pts
South Africa	69%	65%	4 pts
Australia	61%	59%	2 pts
Russia	35%	33%	2 pts
South Korea	38%	38%	0 pts
Indonesia	37%	39%	-2 pts
India	40%	45%	-5 pts
Germany	54%	63%	-9 pts

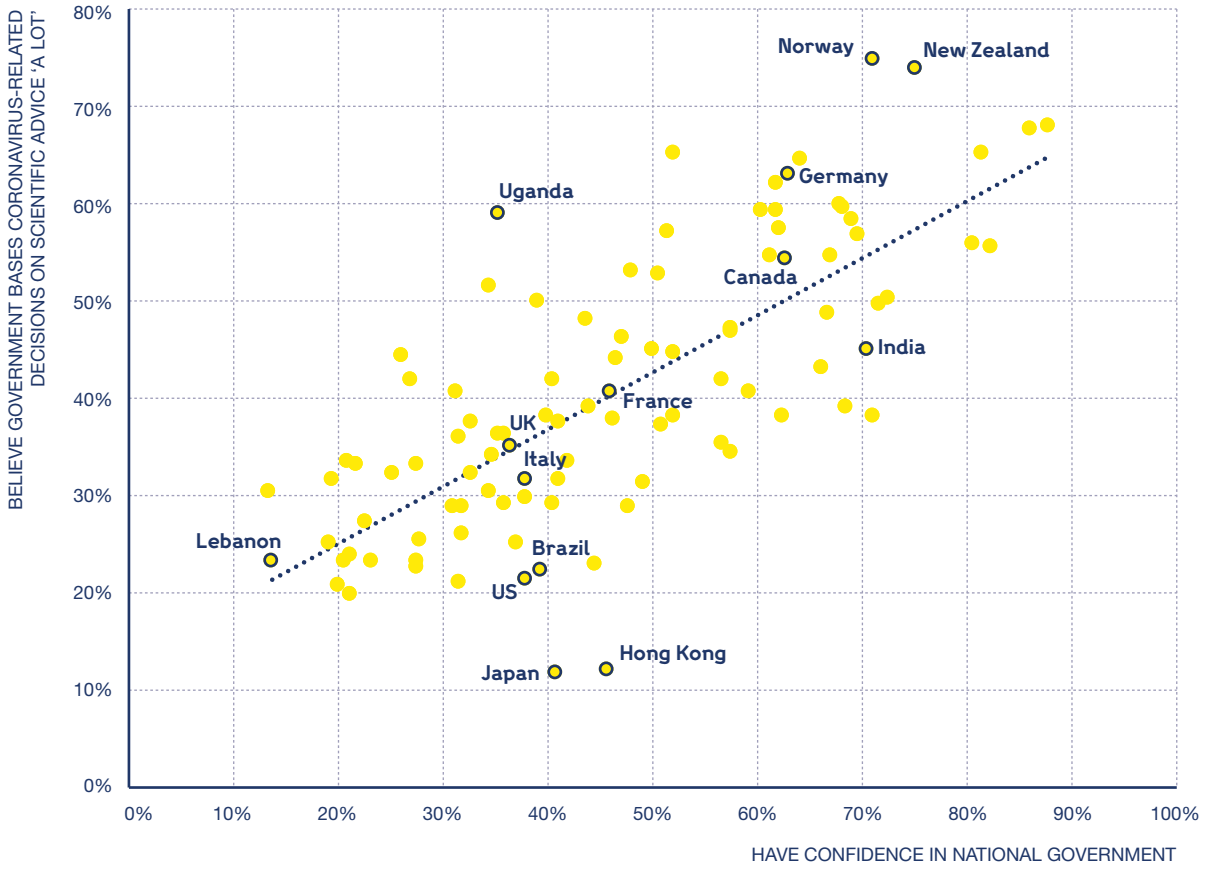
*Questions about the government's response to Covid-19 were not permitted in China or Saudi Arabia.

As Chart 3.8 demonstrates, these two variables were closely related at the country level. In countries where people were more likely to be confident in their government overall, they were also more likely to believe it makes decisions about Covid-19 based primarily on objective scientific advice – a notable finding given that politics and misinformation have complicated government responses to the pandemic in many countries[27].

Chart 3.8:
Scatterplot exploring the relationship between the belief that the government bases coronavirus-related decisions on scientific advice compared to overall confidence in the government

Percentage of people who answered "a lot".

In general, how much do you think [the national government] makes decisions about coronavirus based on scientific advice?



R = .74

One in four people worldwide said their government values the opinions and expertise of scientists 'a lot'.

Given the vital role of governments in endorsing and implementing scientific recommendations during the pandemic, the Wellcome Global Monitor asked people how much they think the leaders in their country value the opinions and expertise of scientists.

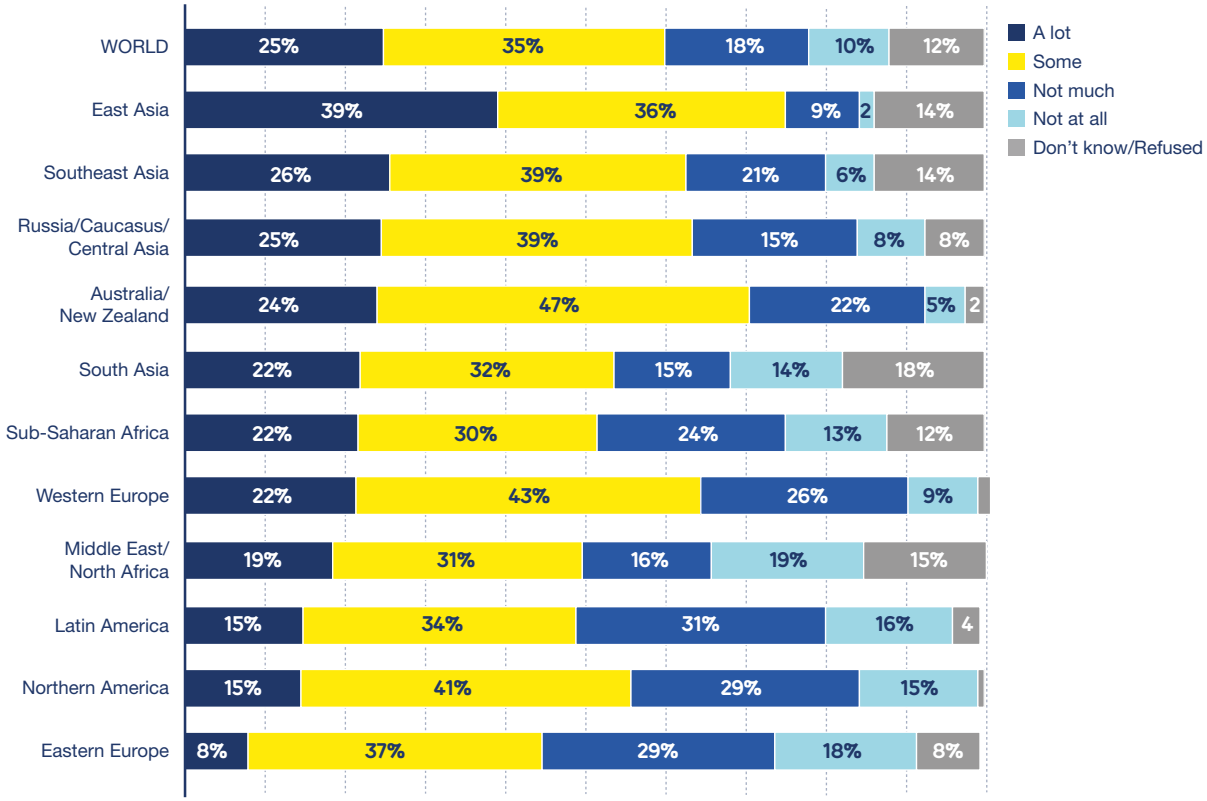
Globally, as shown in Chart 3.9, one in four people (25%) said leaders in their national government place 'a lot' of value on the opinions and expertise of scientists, though an additional 35% said government leaders place 'some' value on it. Nearly three in ten (28%) felt their government does not place much or any value on scientists' opinions.

People in East Asia were most likely to say government leaders place a lot of value on scientists' opinions and expertise, at 39%. China's population largely accounted for this high figure;* 44% of Chinese respondents said their government leaders value scientists' opinions a lot, while 7% answered 'not much' or 'not at all'. However, not all East Asian populations were so certain about their government's respect for science. Just 3% of Japanese respondents said their government places a lot of value on scientists' opinions, while 53% said it places some value on them and 37% answered 'not much' or 'none at all'. Polls from Japan have consistently found high levels of dissatisfaction with the government's response throughout the pandemic[28,29].

Chart 3.9: Views on whether government leaders value scientists' opinions, by region

Percentage of people who said 'a lot', 'some', 'not much or 'not at all'.

In general, how much do you think the leaders in the national government value the opinions and expertise of scientists?



Note: Due to rounding, percentages may sum to 100% ±1%.

*Because China accounts for such a large proportion of the total population of East Asia, estimates for this region tend to follow those of China even if estimates for other East Asian countries are quite different.

Fewer than one in five people in Eastern Europe, Northern America and Latin America believed their government leaders value scientists' opinions and expertise a lot, while more than 40% said they do not value scientists' opinions much or at all. All three regions are characterised by low levels of trust in government and, as with views that their government bases coronavirus-related decisions on scientific advice (Chart 3.8), views that national leaders value scientists' opinions were strongly related to overall confidence in government.

In 25 of the 113 countries surveyed, including eight in Eastern Europe and six in Latin America, people were significantly more likely to say their government leaders place little to no value on scientists' opinions than to say leaders place some or a lot of value on them. As seen in Table 3.3, this difference was greatest in Lebanon, where the government has been on the verge of collapse amid a devastating economic crisis exacerbated by the pandemic[30].

Table 3.3: Countries and territories where people were more likely to say that their government leaders do not value scientists' opinions

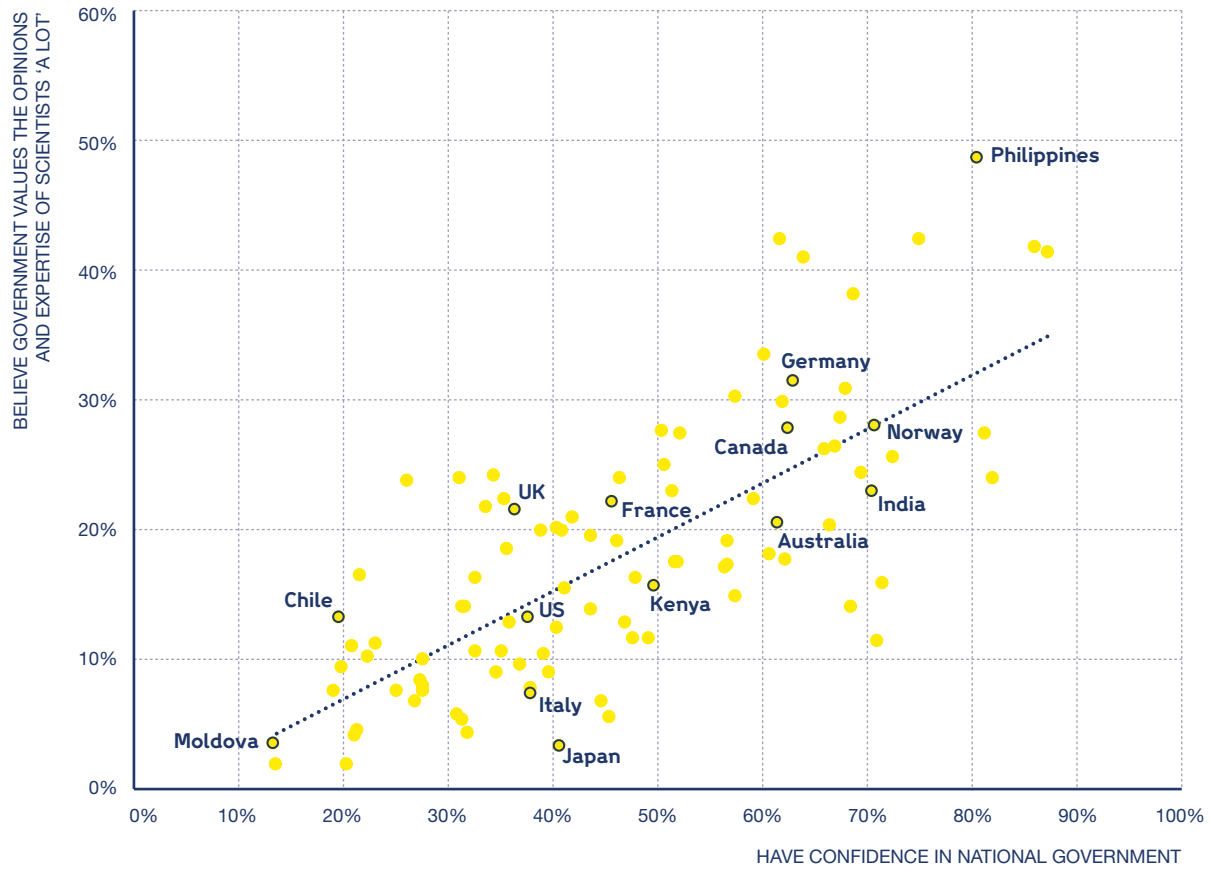
Percentage of people who said 'a lot'/'some' compared to 'not much'/'not at all'.

In general, how much do you think the leaders in the national government value the opinions and expertise of scientists?

	A lot/Some	Not much/Not at all	Difference
Lebanon	12%	74%	-62 pts
Bosnia and Herzegovina	26%	62%	-36 pts
Cameroon	31%	58%	-27 pts
Iraq	34%	59%	-25 pts
Hong Kong SAR	38%	60%	-22 pts
Moldova	34%	54%	-20 pts
Ukraine	36%	55%	-19 pts
Gabon	32%	49%	-17 pts
Tunisia	37%	54%	-17 pts
Italy	42%	58%	-16 pts
Nigeria	37%	51%	-14 pts
Venezuela	41%	54%	-13 pts
Congo Brazzaville	36%	49%	-13 pts
Brazil	43%	54%	-11 pts
Kosovo	36%	46%	-10 pts
Guinea	33%	42%	-9 pts
North Macedonia	38%	47%	-9 pts
Bolivia	42%	51%	-9 pts
Paraguay	40%	49%	-9 pts
Romania	40%	48%	-8 pts
Ecuador	43%	51%	-8 pts
Chile	44%	52%	-8 pts
Benin	37%	43%	-6 pts
Bulgaria	44%	50%	-6 pts
Albania	40%	45%	-5 pts

Remarkably, in all 113 countries and territories included in 2020, only a minority said leaders in their government value the opinions and expertise of scientists a lot. However, as with the perception that their government bases decisions about Covid-19 on scientific advice, people's belief that their government values the opinions and expertise of scientists was most prevalent where overall confidence in government was highest (Chart 3.10).

Chart 3.10: Scatterplot exploring the relationship between the belief that the government values the opinion and expertise of scientists 'a lot' compared to overall confidence in the government



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Appendix A: Mode effects

2 Metres: Masked Portraits on Ridley Road
Gideon Mendel (assisted by Maria Quigley)

Elam Forrester, film maker. “Everything stopped at the end of March. I got a mild version of the virus and isolated myself beyond the recommended time as I had lost my sense of taste and smell. Keeping one’s distance in shops, buses and busy streets is challenging so wearing a mask feels like the safest option.”

About this series
Portraits taken during the UK’s first lockdown on Ridley Road in Hackney, east London. It’s usually the site of a bustling market, but its hours were restricted and distancing lines were painted on the road.

Appendix A: Mode effects

2018-2020 mode effects in the Wellcome Global Monitor

Pablo Diego-Rosell, PhD

Introduction

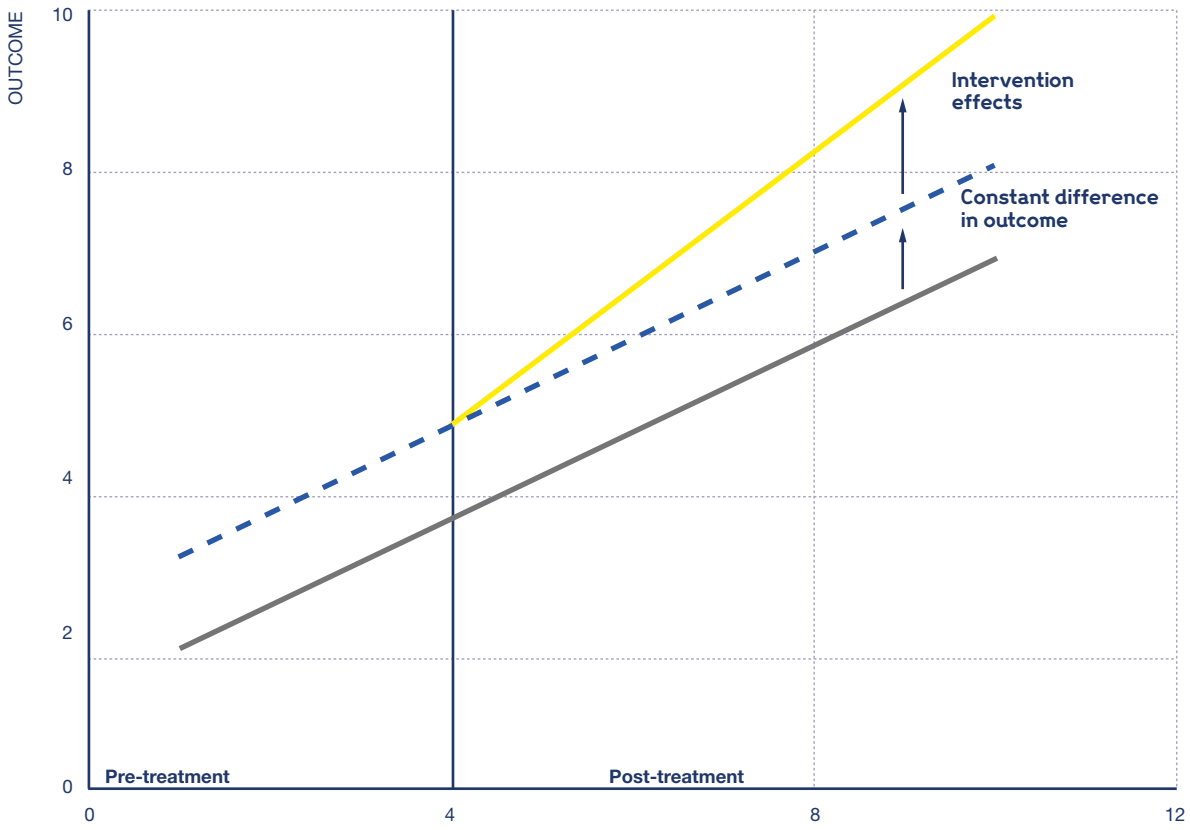
To minimise the risks of Covid-19 transmission that face-to-face data collection entailed, Gallup conducted all interviews via telephone in 2020. As a result, 82 of the 111 countries and territories (74%) surveyed in the 2018 and 2020 waves of the Wellcome Global Monitor had to switch from face-to-face (F2F) to computer-assisted telephone interviewing (CATI) in 2020. The populations in these 82 countries represent approximately 4.1 billion of the world's population aged 15+, with China and India alone accounting for 2.1 billion. Twenty-nine countries did not change mode because they were already implementing CATI in 2018; these countries and territories represent more than 900 million of the world's 15+ population, with the US accounting for nearly 264 million.

Introducing a mode change for a substantial proportion of the sample represents an analytical challenge due to the possible confounding of mode effects with trends. A mode effect may occur when changing the mode of administration (e.g., from F2F to CATI) results in systematic changes in the composition of the sample or the way some respondents may answer some questions. Gallup designers take great care to minimise mode effects in World Poll questionnaires. For example, World Poll surveys do not include visual prompts or showcards to ensure that they can be implemented over the phone as well as in person. However, it is possible that the mode may introduce other systematic biases that go unnoticed. The analysis that follows seeks to estimate the impact of mode effects on the results for Wellcome Global Monitor countries and territories that changed mode, with a focus on the 13 question items collected in both waves (see Table A.2 for a list of items).

Methods

Gallup was interested in estimating the effect that mode changes may have had on Wellcome Global Monitor trends. The challenge in estimating mode effects is that the survey results collected between 2018 and 2020 may have changed for reasons other than the mode itself. The best way to address such potential confounds is through random mode assignment. However, the mode changes that occurred between 2018 and 2020 were not random; rather, they were driven by the mode used in 2018, which in turn was driven by country characteristics. More specifically, Gallup uses telephone surveys in countries where telephone coverage is available to at least 80% of the population or is the customary survey methodology. In low-income, lower-middle-income and upper-middle-income countries, which includes much of Latin America, the former Soviet Union countries, nearly all of Asia, the Middle East and Africa, Gallup uses an area frame design for face-to-face interviewing in randomly selected households.

Chart A.1:
Difference-in-differences estimation (illustrative example only, not based on WGM data)



To separate the effect of overall trends from mode changes, we conducted a test of mode effects using variables that were asked in both waves using a difference-in-differences (DID) (see Chart A.1) approach, where the countries and territories that had no mode change were used as a reference, or 'control group', and those that had a mode change represented the 'treatment group'.

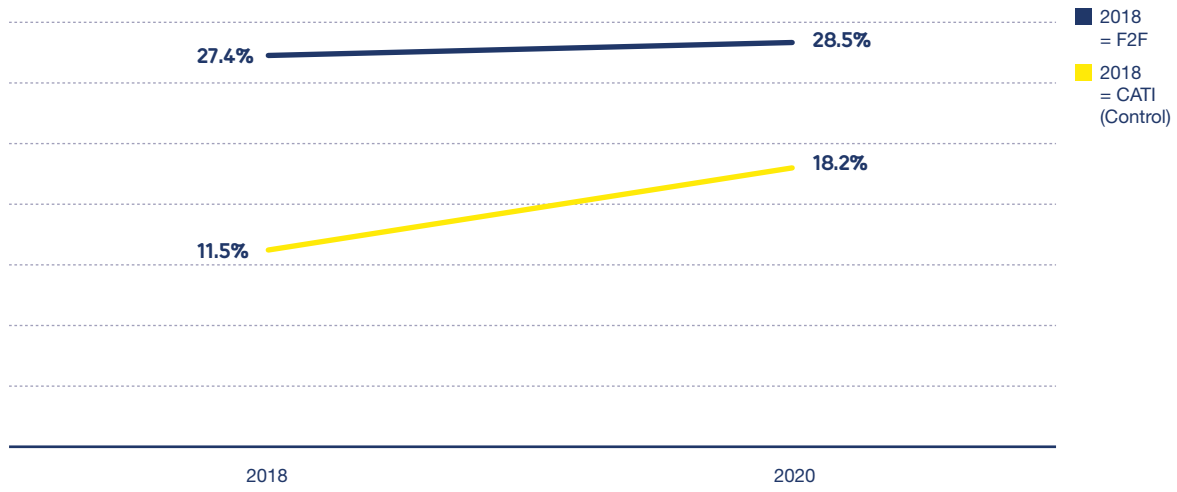
The DID test was estimated within a binary logistic regression framework, with each item dummy coded into variables representing each response option (e.g., 'a lot' compared to 'other' responses). Standard errors were adjusted to account for any sampling design effect.

Results

The DID tests found significant mode effects for most trended items, particularly trust-related items (Table A.2 shows the results of the DID tests for all trended items). As an example, consider W5B (Trust the national government in this country). As shown in Chart A.2, countries and territories that did not change mode saw an increase in the percentage who responded that they trusted the national government a lot – from 11.5% in 2018 to 18.2% in 2020. However, those that changed modes saw a flat trend, from 27.4% in 2018 to 28.5% in 2020.

Chart A.2: Mode effect for W5B – 'Trust in national government'

How much do you trust the national government in this country?



(% 'a lot', by 2018 mode)

Within a DID framework, the control group indicates the 'true' trend for the item in the absence of a mode change. Therefore, we can estimate that the true trend would have been an increase from 11.5% to 18.2%, a 6.7-percentage-point increase (see Table A.1). The trend within the treatment group was different, showing an increase of only 1.1 percentage points. The difference between the control and treatment trends (6.7 – 1.1 = 5.6) can be considered the mode effect, suggesting that the trend for countries that changed mode would have been 5.6 percentage points greater if they had not experienced a mode change.

Table A.1: DID Estimation for W5B ('Trust in national government' = 'a lot')

How much do you trust the national government in this country?

2018 Mode	2018	2020	Differences
F2F	27.4%	28.5%	-1.1%
CATI (Control)	11.5%	18.2%	-6.7%
Differences	15.8%	10.3%	-5.6%

Table A.2 shows that this effect was generally consistent across trust variables, particularly W5A (Neighbours), W5B (National government), W5D (Journalists), W5E (Doctors and nurses) and W5F (NGO workers). These variables showed a decrease in the 'a lot' category and an increase in the 'not at all' category, suggesting that trends may have been more positive for these items in the absence of mode effects.

The results for W10 (Science and technology will increase/decrease the number of jobs in the area in the next five years) also show that mode effects may have increased the proportion who said science and technology would decrease the number of jobs at the expense of the proportion who said that science and technology would increase the number of jobs.

The results for the W8 item (Work of scientists benefits people in this country) show that mode may have increased the proportion of people who said the work of scientists benefits 'very few' people in their country at the expense of the proportion who said that it benefits 'some' people.

The only items that did not seem to show a clear mode effect were items W1 (How much you know about science) and W2 (How much you understand the meaning of science and scientists).

Conclusion

The DID analysis suggests that mode effects may have dulled positive trends for the trust items and for the impact of science and technology on jobs. It is, however, quite likely that the assumptions required to estimate mode effects within this analytical framework are not met. In the current context, DID relies on two key assumptions: 1) there is independence between intervention (mode change) and outcomes and 2) parallel trends*. These assumptions are difficult to assess in the absence of historical data allowing us to estimate the relationship between mode and outcomes and the equivalence of trends between F2F and CATI countries.

It is possible that countries and territories that had a mode change showed different trends regarding trust for reasons other than the mode change itself. For example, before the pandemic, CATI countries in the World Poll tended to be high-income countries, whereas F2F countries tended to be lower- and middle-income countries. It is possible that trends regarding trust were different in these countries because of their economic development level.

In conclusion, while the DID analysis provides some causal evidence of a mode effect, the assumptions of the analysis in the current context are probably violated, and the precise size and direction of the effect is uncertain.

For the full Survey methodology see the Methodology Report.

*This assumption is that the change in trust for countries that switched from face-to-face to telephone interviewing between 2018 and 2020 would have been the same as the change in trust for countries that used phone interviewing in both waves, had there been no change in mode

Table A.2: Difference-in-differences test for trended items

WGM item	Response	Coef	Std. error	Hypothesis test		
				t	df	Sig.
W1. How much you know about science	A lot	-0.132	0.087	-1.518	151345	0.129
	Some	0.175	0.050	3.488	151345	0.000
	Not much	0.063	0.053	1.188	151345	0.235
	Not at all	-0.093	0.088	-1.051	151345	0.293
W2. How much you understand the meaning of science and scientists	A lot	0.019	0.050	0.382	151345	0.703
	Some	0.164	0.050	3.276	151345	0.001
	Not much	-0.073	0.069	-1.054	151345	0.292
	Not at all	-0.071	0.124	-0.574	151345	0.566
W5A. Trust people in neighbourhood	A lot	-0.297	0.056	-5.338	151345	0.000
	Some	-0.126	0.052	-2.414	151345	0.016
	Not much	0.198	0.079	2.499	151345	0.012
	Not at all	0.670	0.133	5.053	151345	0.000
W5B. Trust the national government in this country	A lot	-0.484	0.066	-7.354	141346	0.000
	Some	-0.196	0.055	-3.600	141346	0.000
	Not much	0.238	0.064	3.740	141346	0.000
	Not at all	0.165	0.067	2.483	141346	0.013
W5C. Trust scientists in this country	A lot	0.066	0.053	1.245	151345	0.213
	Some	-0.040	0.052	-0.771	151345	0.441
	Not much	-0.125	0.102	-1.230	151345	0.219
	Not at all	0.702	0.148	4.734	151345	0.000
W5D. Trust journalists in this country	A lot	-0.158	0.072	-2.200	150345	0.028
	Some	-0.195	0.053	-3.716	150345	0.000
	Not much	0.106	0.058	1.814	150345	0.070
	Not at all	0.453	0.074	6.108	150345	0.000
W5E. Trust doctors and nurses in this country	A lot	-0.309	0.052	-5.945	151345	0.000
	Some	0.172	0.051	3.396	151345	0.001
	Not much	0.215	0.111	1.935	151345	0.053
	Not at all	0.928	0.214	4.336	151345	0.000
W5F. Trust people who work at charitable organisations or NGOs in this country	A lot	-0.247	0.063	-3.914	151345	0.000
	Some	-0.100	0.051	-1.965	151345	0.049
	Not much	0.242	0.067	3.587	151345	0.000
	Not at all	0.543	0.093	5.871	151345	0.000
W5G. Trust traditional healers in this country	A lot	0.109	0.085	1.288	151345	0.198
	Some	-0.088	0.054	-1.632	151345	0.103
	Not much	-0.365	0.061	-5.934	151345	0.000
	Not at all	0.291	0.054	5.356	151345	0.000
W6. Trust science	A lot	0.213	0.055	3.887	151345	0.000
	Some	-0.062	0.052	-1.185	151345	0.236
	Not much	0.013	0.106	0.126	151345	0.899
	Not at all	0.462	0.228	2.032	151345	0.042
W7A. Trust scientists to find out accurate information about the world	A lot	0.323	0.053	6.045	151345	0.000
	Some	-0.078	0.051	-1.541	151345	0.123
	Not much	-0.160	0.094	-1.702	151345	0.089
	Not at all	0.146	0.198	0.737	151345	0.461
W8. Work of scientists benefits people in (country)	Most	0.088	0.051	1.702	151345	0.089
	Some	-0.220	0.052	-4.263	151345	0.000
	Very few	0.228	0.070	3.245	151345	0.001
W10. Science and technology will increase or decrease number of jobs in the area in next five years	Decrease	0.484	0.056	8.665	151345	0.000
	Increase	-0.345	0.050	-6.842	151345	0.000
	Neither	-0.063	0.091	-0.690	151345	0.490

Note: Coefficients represent the exponentiated odds ratios (logits) indicating the DID-based estimate of mode effect on each response category.

Appendix B: Country dataset details, 2020 Wellcome Global Monitor

The patient suffers the virus, the family carry their own affliction
Zora Kuettner

Sama Conteh was in King's ICU for many months with Covid-19.

The doctors thought he wasn't going to make it. Here he is back at home, surrounded by his three daughters. Grateful to be alive, but apprehensive and much weakened from a body returned from the edge of life.

Zora Kuettner / Wellcome Photography Prize 2021

Appendix B: Country dataset details, 2020 Wellcome Global Monitor

Country dataset details

Gallup worldwide research data collected from 2020

[a] *Margin of error is calculated around a proportion at the 95% confidence level. The maximum margin of error was calculated assuming a reported percentage of 50% and takes into account the design effect. Margin of error calculation: √(0.25/N)*1.96*√(DE)*

Country	Data collection dates	Number of interviews	Margin of error[a]	Stringency Index: Average score during fielding* period	Confirmed cases per 100,000: Cumulative total at start of fielding period[31]	Confirmed cases per 100,000: Cumulative total at end of fielding period	% change in cases
Albania	Oct 19 – Nov 23, 2020	1,000	3.8	57.2	605.29	1,170.68	93.41
Algeria	Oct 30 – Nov 14, 2020	1,020	4.3	71.6	136.52	158.23	15.9
Argentina	Nov 6, 2020 – Jan 17, 2021	1,001	4.6	79.2	2,761.72	4,043.74	46.42
Australia	Nov 2 – Dec 15, 2020	1,001	4.4	56.1	110.48	112.27	1.62
Austria	Oct 19 – Nov 17, 2020	1,000	3.8	69.1	770.71	2,519.27	226.88
Bahrain	Oct 1 – Nov 4, 2020	1,005	5.2	59.2	4,547.74	5,264.56	15.76
Bangladesh	Nov 19 – Dec 12, 2020	1,011	4.6	80.1	273.41	303.17	10.88
Belgium	Oct 20 – Nov 18, 2020	1,001	3.4	61.0	2,100.53	4,773.68	127.26
Benin	Nov 21 – Dec 9, 2020	1,007	4.6	40.7	25.39	26.9	5.95
Bolivia	Nov 1 – Nov 22, 2020	1,002	4.0	81.9	1,249.28	1,268.18	1.51
Bosnia and Herzegovina	Nov 15 – Dec 22, 2020	1,002	3.9	48.5	2,164.79	3,218.66	48.68
Brazil	Nov 3, 2020 – Jan 6, 2021	1,000	4.6	60.5	2,659.47	3,762.91	41.49
Bulgaria	Nov 24 – Dec 23, 2020	1,007	4.4	53.7	1,841.24	2,788.4	51.44
Burkina Faso	Nov 12 – Dec 15, 2020	1,002	5.0	18.5	13.09	21.77	66.31
Cambodia	Nov 21 – Dec 18, 2020	1,000	4.8	53.3	1.88	2.23	18.62
Cameroon	Oct 29 – Dec 9, 2020	1,006	5.1	39.3	86.42	99	14.56
Canada	Oct 13 – Nov 24, 2020	1,010	3.7	64.0	504.3	924.08	83.24
Chile	Nov 9, 2020 – Jan 24, 2021	1,021	3.8	78.1	2,791.79	3,732.74	33.7
China	Oct 28 – Dec 13, 2020	3,502	2.5	72.8	6.59	6.82	3.49
Colombia	Oct 15 – Dec 28, 2020	1,000	3.9	63.6	1,887.22	3,230.31	71.17

*Index is scored between 0 and 100, with a higher score indicating greater levels of Covid-19-related government restrictions.

For more information, please see: www.bsg.ox.ac.uk/covidtracker

Country	Data collection dates	Number of interviews	Margin of error[a]	Stringency Index: Average score during fielding* period	Confirmed cases per 100,000: Cumulative total at start of fielding period[31]	Confirmed cases per 100,000: Cumulative total at end of fielding period	% change in cases
Congo Brazzaville	Oct 29 – Dec 14, 2020	1,009	4.3	45.1	100.87	118.22	17.2
Costa Rica	Nov 8, 2020 – Feb 18, 2021	1,001	3.9	58.8	2,327.52	4,025.27	72.94
Croatia	Nov 25, 2020 – Jan 12, 2021	1,000	4.1	48.6	2,730.46	5,405.83	97.98
Cyprus	Oct 7 – Dec 15, 2020	1,012	4.3	64.8	159.51	1,327.63	732.32
Czech Republic	Nov 17 – Dec 22, 2020	1,000	3.9	66.2	4,419.98	6,081.89	37.6
Denmark	Oct 14 – Nov 12, 2020	1,000	3.7	41.8	579.83	1,017.72	75.52
Dominican Republic	Oct 29 – Nov 17, 2020	1,000	3.9	66.5	1,184.82	1,267.48	6.98
Ecuador	Oct 14 – Dec 29, 2020	1,000	4.0	55.7	872.63	1,231.1	41.08
Egypt	Nov 21 – Dec 6, 2020	1,004	4.9	60.2	114.48	120.33	5.11
El Salvador	Nov 18 – Dec 28, 2020	1,000	4.4	48.0	575.71	707.32	22.86
Estonia	Nov 24 – Dec 15, 2020	1,013	3.8	45.0	768.47	1,413.19	83.9
Ethiopia	Nov 4 – Dec 7, 2020	1,003	5.0	52.8	89.61	104.13	16.2
Finland	Sep 1 – Oct 21, 2020	1,000	3.9	33.3	147.62	255.12	72.82
France	Oct 19 – Nov 14, 2020	1,000	3.8	66.8	1,359.09	2,918.31	114.73
Gabon	Dec 2 – Dec 26, 2020	1,005	5.0	64.4	435.95	448.12	2.79
Georgia	Nov 5 – Dec 22, 2020	1,000	4.2	74.2	1,320.74	5,703.02	331.8
Germany	Oct 19 – Nov 14, 2020	1,000	4.6	61.6	455.79	967.55	112.28
Ghana	Nov 18 – Dec 21, 2020	1,000	4.3	38.9	169.51	181.25	6.93
Greece	Nov 2 – Nov 26, 2020	1,006	4.5	75.6	392.11	925.35	135.99
Guinea	Nov 26 – Dec 16, 2020	1,009	5.4	45.7	104.31	108.54	4.06
Hong Kong SAR	Nov 10 – Dec 20, 2020	1,004	3.5	N/A	N/A	N/A	N/A
Hungary	Nov 10 – Dec 11, 2020	1,000	4.4	72.2	1,216.48	2,774.26	128.06
India	Nov 24, 2020 – Jan 8, 2021	3,045	3.0	69.0	681.78	771.28	13.13
Indonesia	Nov 16 – Dec 31, 2020	1,023	4.0	61.8	175.84	277.66	57.9
Iran	Nov 2 – Nov 8, 2020	1,007	3.7	68.1	768.68	834.33	8.54
Iraq	Dec 4, 2020 – Jan 2, 2021	1,009	3.7	50.4	1,458.68	1,553.41	6.49
Ireland	Oct 19 – Nov 13, 2020	1,000	3.7	79.5	1,047.66	1,378.56	31.58
Israel	Nov 11 – Dec 1, 2020	1,063	3.5	65.7	3,620.19	3,809.49	5.23
Italy	Oct 19 – Nov 11, 2020	1,000	5.1	68.4	701.04	1,702.08	142.79
Ivory Coast	Nov 12 – Dec 4, 2020	1,005	4.8	25.0	83.3	85.41	2.53
Japan	Oct 2 – Dec 3, 2020	1,012	3.4	35.3	67.04	123.18	83.74
Jordan	Dec 21 – Dec 31, 2020	1,005	3.8	81.2	2,786.74	2957.95	6.14

Country	Data collection dates	Number of interviews	Margin of error[a]	Stringency Index: Average score during fielding* period	Confirmed cases per 100,000: Cumulative total at start of fielding period[31]	Confirmed cases per 100,000: Cumulative total at end of fielding period	% change in cases
Kazakhstan	Nov 26, 2020 – Jan 6, 2021	1,000	3.9	71.2	934.79	1,127.01	20.56
Kenya	Oct 29 – Nov 26, 2020	1,002	4.3	63.5	102.37	155.86	52.25
Kosovo	Nov 13 – Dec 15, 2020	1,004	4.2	N/A	N/A	N/A	N/A
Kyrgyzstan	Nov 26 – Dec 10, 2020	1,000	3.8	49.4	1,131.59	1,208.18	6.77
Laos	Nov 18 – Dec 1, 2020	1,000	5.1	32.8	0.35	0.55	57.14
Latvia	Oct 27 – Dec 16, 2020	1,005	3.9	51.2	253.9	1,426.7	461.91
Lebanon	Dec 11 – Dec 30, 2020	1,035	3.4	87.0	2,098.21	2,598.89	23.86
Lithuania	Dec 3, 2020 – Jan 21, 2021	1,001	4.4	70.1	2,394.43	6206.9	159.22
Malaysia	Dec 18, 2020 – Feb 18, 2021	1,004	4.6	73.1	288.04	871.83	202.68
Mali	Oct 28 – Nov 15, 2020	1,002	4.5	38.0	18.5	20.44	10.49
Malta	Sep 6 – Oct 30, 2020	1,002	3.6	45.0	420.73	1,226.09	191.42
Mauritius	Oct 20 – Dec 5, 2020	1,000	4.2	16.7	33.11	40.15	21.26
Mexico	Nov 17, 2020 – Jan 15, 2021	1,000	4.3	71.8	801.29	1275.64	59.2
Moldova	Nov 26 – Dec 20, 2020	1,005	3.9	56.2	3,802.37	4,996.47	31.4
Mongolia	Dec 3 – Dec 20, 2020	1,000	4.0	80.3	26.21	31.32	19.5
Montenegro	Nov 22 – Dec 31, 2020	1,027	4.0	0.0	4,992.07	7,753.92	55.32
Morocco	Nov 12 – Dec 3, 2020	1,012	3.7	66.2	768.33	1,023.13	33.16
Myanmar	Dec 9 – Dec 25, 2020	1,000	4.4	75.9	192.09	224.45	16.85
Namibia	Dec 15 – Dec 28, 2020	1,007	4.2	33.7	690.82	910.32	31.77
Nepal	Dec 13, 2020 – Jan 6, 2021	1,000	4.9	60.2	884.45	937.03	5.94
Netherlands	Sep 10 – Dec 14, 2020	1,000	4.3	58.9	455.1	3,602.01	691.48
New Zealand	Oct 19 – Dec 6, 2020	1,000	4.0	22.2	38.98	42.95	10.18
Nicaragua	Sep 24 – Dec 1, 2020	1,000	4.3	8.6	78.46	90.29	15.08
Nigeria	Oct 30 – Nov 18, 2020	1,002	4.7	50.9	32.01	33.54	4.78
North Macedonia	Oct 19 – Nov 26, 2020	1,019	3.6	0.0	1,142.03	2,813.69	146.38
Norway	Aug 28 – Oct 10, 2020	1,000	3.9	35.4	199.21	291.16	46.16
Paraguay	Sep 22 – Dec 9, 2020	1,000	4.1	67.2	500.68	1,295.93	158.83
Peru	Sep 11 – Oct 30, 2020	1,001	4.0	82.6	2,240.35	2,814.01	25.61
Philippines	Oct 19 – Dec 2, 2020	1,000	4.2	69.4	336.77	407.27	20.93
Poland	Nov 9 – Dec 7, 2020	1,002	4.1	75.0	1,496.09	2,812.05	87.96
Portugal	Sep 14 – Oct 21, 2020	1,004	4.2	58.3	628.13	1,033.38	64.52
Romania	Nov 2 – Dec 17, 2020	1,006	3.9	71.9	1,287.9	2,966.41	130.33

Country	Data collection dates	Number of interviews	Margin of error[a]	Stringency Index: Average score during fielding* period	Confirmed cases per 100,000: Cumulative total at start of fielding period[31]	Confirmed cases per 100,000: Cumulative total at end of fielding period	% change in cases
Russia	Oct 15, – Dec 2, 2020	2,002	2.7	45.8	931.89	1,610.7	72.84
Saudi Arabia	Sep 30 – Oct 17, 2020	1,013	5.0	57.4	992.89	1,014.41	2.17
Senegal	Oct 25 – Nov 22, 2020	1,025	3.9	35.2	98.09	100.17	2.12
Serbia	Nov 4 – Dec 1, 2020	1,000	4.0	55.9	766.12	2,627.06	242.9
Slovakia	Nov 2 – Dec 11, 2020	1,004	3.8	70.5	1,135.15	2,333.25	105.55
Slovenia	Sep 24 – Nov 9, 2020	1,001	4.3	60.1	232.22	2,199.97	847.36
South Africa	Nov 19 – Dec 13, 2020	1,004	4.3	43.4	1,314.75	1,490.08	13.34
South Korea	Nov 28 – Dec 29, 2020	1,009	3.8	57.0	65.54	115.82	76.72
Spain	Oct 19 – Nov 12, 2020	1,000	3.9	69.0	2,082.31	3071.21	47.49
Sri Lanka	Nov 17, 2020 – Jan 2, 2021	1,011	4.2	61.3	83.41	204.76	145.49
Sweden	Sep 8 – Oct 21, 2020	1,000	4.0	55.6	845.1	1,074.49	27.14
Switzerland	Oct 19 – Nov 17, 2020	1,000	4.0	49.0	976.82	3,224.79	230.13
Taiwan	Sep 23 – Oct 19, 2020	1,000	4.1	23.2	2.16	2.28	5.56
Tajikistan	Dec 2 – Dec 20, 2020	1,000	4.3	40.1	134.81	142.4	5.63
Tanzania	Nov 8 – Nov 22, 2020	1,000	4.8	17.6	0.9	0.9	0
Thailand	Dec 8, 2020 – Jan 14, 2021	1,000	4.8	59.1	5.94	16.22	173.06
Tunisia	Oct 12 – Nov 4, 2020	1,006	4.3	60.7	281.5	556.52	97.7
Turkey	Nov 24 – Dec 3, 2020	1,000	4.5	66.2	559.91	631.89	12.86
Uganda	Nov 16 – Nov 25, 2020	1,027	4.8	47.0	38.05	44.21	16.19
Ukraine	Oct 28 – Nov 16, 2020	1,000	4.2	59.4	838.19	1,258.51	50.15
United Arab Emirates	Oct 13 – Nov 5, 2020	1,002	3.5	49.3	1,127.7	1,439.1	27.61
United Kingdom	Oct 19 – Nov 16, 2020	1,000	3.9	70.8	1,115.27	2,092.5	87.62
United States	Aug 4 – Oct 9, 2020	1,001	4.2	65.2	1,461.18	2,348.1	60.7
Uruguay	Nov 20, 2020 – 9 Jan, 2021	1,003	3.6	56.8	129.79	724.03	457.85
Uzbekistan	Nov 20 – Dec 12, 2020	1,000	4.2	39.8	216.07	227.01	5.06
Venezuela	Oct 31 – Dec 30, 2020	1,000	4.0	86.1	318.71	391.83	22.94
Vietnam	Oct 19 – Dec 6, 2020	1,000	5.0	48.8	1.19	1.43	20.17
Zambia	Dec 1 – Dec 17, 2020	1,005	4.1	46.2	101.8	106.64	4.75
Zimbabwe	Oct 25 – Nov 21, 2020	1,002	4.2	69.6	57.32	63.52	10.82

Endnotes

31. Guidotti, E., & Ardia, D. (2020). Covid-19 data hub. Journal of Open Source Software, 5(51), 2376. doi: 10.21105/joss.02376

Appendix C: Global regions

Measure and Middle
Ingmar Björn Nolting

Young couples meet at the previously open border between Konstanz, Germany, and Kreuzlingen, Switzerland. The authorities put up a fence, and later a second one to force distancing more effectively. Here, on a stretch on private ground, there was only one old fence, allowing a little physical contact.

About this series
Covid-19 and lockdowns disrupted almost every aspect of life, challenging people, governments and organisations of every kind to find ways to adapt. Ingmar Björn Nolting travelled through Germany in April 2020 to see what was going on.

Ingmar Björn Nolting / Wellcome Photography Prize 2021

Appendix C: Global regions

The Wellcome Global Monitor Covid-19 study includes representative surveys in the following 113 countries and territories, categorised into 11 global regions for analysis. It should be noted that results for questions asked specifically about Covid-19 are unavailable for China, Australia, New Zealand and Japan. However, these countries were included in the analyses of more general questions related to trust in science and scientists as well as in other institutions.

East Asia
China
Hong Kong SAR
Japan
Mongolia
South Korea
Taiwan

Southeast Asia
Cambodia
Indonesia
Laos
Malaysia
Myanmar
Philippines
Thailand
Vietnam

South Asia
Bangladesh
India
Nepal
Sri Lanka

Australia/New Zealand

Russia/Caucasus/ Central Asia
Georgia
Kazakhstan
Kyrgyzstan
Russia
Tajikistan
Uzbekistan

Sub-Saharan Africa
Benin
Burkina Faso
Cameroon
Congo Brazzaville
Ethiopia
Gabon
Ghana
Guinea
Ivory Coast
Kenya
Mali
Mauritius
Namibia
Nigeria
Senegal
South Africa
Tanzania
Uganda
Zambia
Zimbabwe

Latin America
Argentina
Bolivia
Brazil
Chile
Colombia
Costa Rica
Dominican Republic
Ecuador
El Salvador
Mexico
Nicaragua
Paraguay
Peru
Uruguay
Venezuela

Northern America
Canada
United States

Middle East/ North Africa
Algeria
Bahrain
Egypt
Iran
Iraq
Israel
Jordan
Lebanon
Morocco
Saudi Arabia
Tunisia
Turkey
United Arab Emirates

Western Europe
Austria
Belgium
Cyprus
Denmark
Finland
France
Germany
Greece
Ireland
Italy
Malta
Netherlands
Norway
Portugal
Spain
Sweden
Switzerland
United Kingdom

Eastern Europe
Albania
Bosnia Herzegovina
Bulgaria
Croatia
Czech Republic
Estonia
Hungary
Kosovo
Latvia
Lithuania
Macedonia
Moldova
Montenegro
Poland
Romania
Serbia
Slovakia
Slovenia
Ukraine

The country income groups used in this report are based on the World Bank's classification of economies by average income. The low-income and lower-middle-income groups were combined for analysis.

Low income/ Lower-middle income

Algeria
Bangladesh
Benin
Bolivia
Burkina Faso
Cambodia
Cameroon
Congo Brazzaville
Egypt
El Salvador
Ethiopia
Ghana
Guinea
India
Ivory Coast
Kenya
Kyrgyzstan
Laos
Mali
Moldova
Mongolia
Morocco
Myanmar
Nepal
Nicaragua
Nigeria
Philippines
Senegal
Sri Lanka
Tajikistan
Tanzania
Tunisia
Uganda
Ukraine
Uzbekistan
Vietnam
Zambia
Zimbabwe

Upper-middle income

Albania
Argentina
Bosnia and Herzegovina
Brazil
Bulgaria
China
Colombia
Costa Rica
Dominican Republic
Ecuador
Gabon
Georgia
Indonesia
Iran
Iraq
Jordan
Kazakhstan
Kosovo
Lebanon
Malaysia
Mexico
Montenegro
Namibia
North Macedonia
Paraguay
Peru
Russia
Serbia
South Africa
Thailand
Turkey
Venezuela

High income

Australia
Austria
Bahrain
Belgium
Canada
Chile
Croatia
Cyprus
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hong Kong SAR
Hungary
Ireland
Israel
Italy
Japan
Latvia
Lithuania
Malta
Mauritius
Netherlands
New Zealand
Norway
Poland
Portugal
Romania
Saudi Arabia
Slovakia
Slovenia
South Korea
Spain
Sweden
Switzerland
Taiwan
United Arab Emirates
United Kingdom
United States
Uruguay

Wellcome supports science to solve the urgent health challenges facing everyone. We support discovery research into life, health and wellbeing, and we're taking on three worldwide health challenges: mental health, global heating and infectious diseases.

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