World Vision

COVID-19 AFTERSHOCKS:

DEADLY WAVES

Multiple, potentially deadlier, waves of COVID-19 continue to threaten millions of lives if leaders fail to prioritise vulnerable people everywhere.

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Executive Summary

As several countries move through the first wave of the COVID-19 pandemic and begin to ease lockdowns and reopen their economies and schools, they potentially face repeated waves if effective steps are not taken to tackle the disease everywhere. As a child-focused agency, World Vision is particularly concerned at the growing direct¹ and indirect risks of the virus to children and young, especially those in countries with weaker health systems.

Effective support from major donor countries to strengthen weaker health systems is crucial to protect the world's most vulnerable people, particularly those affected by conflict, disaster and extreme poverty who are living in overcrowded slums and displacement camps. If the virus continues to thrive in these situations, it will pose a perpetual threat to both the world's poorest people and those living in wealthier countries alike. Borders cannot be closed indefinitely and the virus does not distinguish between nationality or class. Success in defeating this virus ultimately depends on a commitment to reaching the most vulnerable in every country, plus a universal recognition that, as WHO Director-General Tedros Adhanom Ghebreyesus said, the world is only as strong as its weakest health system.

Donor governments must scale up their own domestic efforts to COVID-19, but it is vital that they also support countries and communities affected by conflict and humanitarian crises — many of which are already on the brink. Not only are millions of lives at risk, but history has shown that countries devastated by illnesses like AIDS or Ebola will inevitably require massive investment to address the social and economic fallout.

The call for a unified global response to the threat of COVID-19 has also been echoed by thousands of people surveyed in seven major donor countries. The majority of those interviewed by World Vision in Australia, Canada, Germany, Japan, Netherlands, Switzerland, and the UK, believed repeated outbreaks in other countries threatened their own nations, and that their governments should increase development aid spending to manage the spread of COVID-19 in countries with weaker health systems.

Understanding and building on the lessons learned during the first wave of COVID-19 will minimise the impact of second and subsequent waves, if, and only if everyone has equal access to what works. To limit the spread of the virus everyone must be given the ability to test, self-isolate if necessary, and receive treatment.

To this end, World Vision urges all donors to fully fund the UN's \$10.3 bn appeal to protect those in fragile and conflict-affected contexts now – an appeal that, as of August 12, was only 20.4 per cent funded. Without full funding, risks of future waves will continue to present a global threat.

 $^{^{\}rm I} \ See \ \underline{https://www.citynews1130.com/2020/08/14/young-people-long-term-covid/} \ and \ \underline{https://edition.cnn.com/2020/08/15/health/us-coronavirus-saturday/} \ and \ \underline{https://edition.cnn.cnn.com/2020/08/15/health/us-coronavirus-saturday/} \ and \ \underline{https://edition.cnn.cnn.cnn/2020/08/15/health/us-coronavirus-saturday/} \ and \ \underline{https://edition.cnn.cnn/2020/08/15/health/us-coronavirus-saturday/} \ and \ \underline{https://edition.cnn.cnn/2020/08/15/health/us-coronavirus-saturday/} \ and \ \underline{https://edition.cnn/2020/08/15/health/us-coronavirus-saturday/} \ and \ \underline{https://edition.cnn/2020/08/15/health/us-coronavirus-saturday/} \ and \ \underline{https://edition.cnn/2020/08/15/health/us-coron$

Key findings:

- **61 per cent** want their governments to invest more, not less, to help stop the spread of COVID-19 overseas²
- **80 per cent** of people surveyed in major donor countries believe their country won't be able to return to normal life until COVID-19 is under control everywhere in the world.
- If COVID-19 deaths mirror the 1918 influenza pandemic, more than **1.56 million** people globally may die after a second wave³, with potentially millions more dying from secondary health impacts caused by the pandemic.

Executive Summary

With over 22,164,000 confirmed COVID-19 cases and more than 781,500 confirmed deaths across 216 countries, areas or territories, the COVID-19 crisis is impacting children, families and communities around the world.⁴ The pandemic has caused global upheaval through both direct and indirect impacts on people's health, wellbeing, and livelihoods. Sadly, studies of 'excess mortality' (numbers of deaths above the recorded average) are starting to confirm World Vision's prediction⁵ of significant numbers of deaths due to secondary impacts of the global pandemic.⁶

In countries where the health systems and monitoring are weak, where people may already be suffering from diseases such as malaria, TB, pneumonia, HIV and AIDS, and Ebola or where immune systems are compromised by severe malnutrition, people are at greater risk from coronavirus and the secondary impacts of the virus. As the COVID-19 pandemic spreads to lower-income, fragile and/or conflict-affected countries, there are deep concerns for the most vulnerable: those with compromised immune systems; and/or living in poverty, overcrowded spaces (e.g., urban slums, refugee camps), or situations of conflict and/or fragility where health, education, and social protection systems are severely impaired.

There are increased threats to health and wellbeing that are indirectly linked to COVID-19, due in part to reductions in service availability or opportunities for access. As noted in the Lancet, recent projections have estimated that an additional 6.7 million children could suffer from wasting in 2020 alone as a result of COVID-19. There have also been concerns about reduced routine immunisation and subsequent rises in other infectious diseases. These concerns are proving to be true – the World Health Organisation recently noted the first decline in DTP3 vaccine in 28 years.

² See Appendix 2 for full Survey Results

³ Based on the doubling of the second wave deaths from the 1918 Spanish Flu seen in the UK and US. See the methodology in the appendix for more information.

⁴ https://coronavirus.jhu.edu/map.html as of 19 August 2020

⁵ https://www.wvi.org/publications/covid-19-aftershocks-secondary-impacts-threaten-more-childrens-lives-disease-itself

 $^{^{6}\,\}underline{\text{https://www.economist.com/graphic-detail/2020/07/15/tracking-covid-19-excess-deaths-across-countries}$

⁷ Diphtheria-tetanus-pertussis (DTP3)



Where governments have asked millions to stay home, and close schools and public spaces in order to contain the outbreak, children, especially the most vulnerable, have faced and are still facing increased instances of psychological distress, violence, and social exclusion. Those who lose care givers to the virus are also at increased risk of starvation, homelessness and violence and sexual abuse.

In addition to health costs, the economic impacts have been severe. World Vision recently surveyed nearly 24,000 men, women, and children living in the Asia-Pacific region, and the findings were devastating. Almost 70 per cent of people indicated that their livelihoods have been fully or severely affected by the COVID-19 pandemic, with daily/wage workers representing the hardest hit. One-quarter of respondents also had no food stocks left, putting them at risk of hunger. Even before COVID-19, world hunger had stopped its previous decline, and more people were experiencing hunger globally. As a result of COVID-19, preliminary estimates indicate that between 83 and 132 million additional people may experience undernourishment in 2020.

As countries and communities respond to the virus by closing schools and places of work and imposing quarantines, it is children and the very poor who are greatly impacted. Any loss of work for those who survive on minimal earnings will have a devastating impact on household incomes where people survive from day to day. The price of food and goods is rising as shortages emerge. Households aren't able to afford or access food supplies in the same way and the loss of earnings is making it very hard for them to feed their children. The situation could go on for months, maybe years.

For those living in fragile contexts, already susceptible to other diseases and hunger, the direct and indirect impacts of COVID-19 could be catastrophic. Those living in refugee and internally displaced camps, where health and social services are limited and density and overcrowding are common, are also more susceptible to infection. Although we have some understanding of these vulnerabilities and impacts, the full extent remains to be seen, making it critical that we monitor these impacts and adapt programming as necessary, as countries exit the first wave and prepare for the potential of a second wave of COVID-19.^{viii}

Additional Waves: Historical Trend, Current Threat

Throughout history, pandemics and epidemics caused by infectious diseases have experienced 'waves' of infections. During the first wave, the disease takes hold in a population, infecting susceptible individuals. A public health response is generated as quickly as possible, reducing infections and educating citizens. After a steady lull in infections – sometimes weeks, sometimes months – the virus re-emerges, often worse than before.

History of multiple waves

The most frequently used comparator for the current COVID-19 pandemic is the 1918-1919 Spanish influenza pandemic. Although estimates vary, it is believed that the Spanish influenza pandemic caused an estimated 50 million deaths and sickened 25-30 per cent of the world's population. The size of the population impacted by Spanish influenza is a hallmark of the pandemic, but it is also one of the clearest examples of the dangers of a second (and third) wave. As data collection surrounding mortality and infectious diseases was still in its infancy in 1918, specific global burdens for each wave are difficult to identify. However, the U.S. Centers for Disease Control estimates that 28 per cent of total U.S. deaths from the influenza pandemic occurred during the second wave - the highest of all waves.* Similar patterns were observed in the United Kingdom, where a much higher (and more fatal) peak was observed during the second and third waves.*

The past 130 years has seen other significant infectious disease outbreaks featuring this pattern of second waves. Some outbreaks had two or more waves of varying severity. For other outbreaks, the same well defined or sizeable waves were not necessarily seen, but similar impacts occurred. Frequent pockets of infection, travelling between countries, and persistent caseloads all extended the 2014-2016 Ebola outbreak in West Africa, which was itself an extension of previous Ebola outbreaks in DRC.

The reasons for second waves varied, and in some cases are still not well understood. In the case of the 1918-1919 pandemic, one theory is that viral mutation meant that those who had previously been infected were not protected against the new form of the virus.**iv Others suggest that school openings and closures, and changes to behavioural patterns also contributed to the presence of multiple waves.**v While COVID-19 is not an influenza, all of these factors, and more, have the potential to impact the development of a second wave of COVID-19.

Second wave of COVID-19

Additional waves of COVID-19 are beginning to emerge in several countries prompting fresh concerns. As more countries ease lockdowns and begin phased-in approaches to reopening their economies, many are concerned about secondary waves occurring until the protective effects of a vaccine or immunity are generated.**vi, *vii Although a second wave of this scale hasn't been seen for previous coronaviruses historically, the COVID-19 has demonstrated similar patterns of infection to the influenza virus, causing significant concern for its easy ability be to be transmitted.**viii

As we look ahead to potential additional waves, we are still struggling with the impacts of the first. On June 7, the World Health Organization warned that we had hit the highest rate of new infections to date – I36,000, with 75 per cent coming from just ten countries primarily located in the Americas and South Asia. ** At the same time, infections are increasing in Central and South America, rippling out from a South American epicentre in Brazil to surrounding countries. Even New Zealand, a country with a strong health system that had previously declared itself free of COVID-19 faced a new outbreak in mid-August.

For those living in fragile contexts, data collection is often limited by a number of factors including access, and the full scope of direct and indirect impacts of COVID-19 in many contexts remain unknown. What is known however, is that refugees and internally displaced people are particularly vulnerable to the impacts of COVID-19.



The first coronavirus case in a Bangladesh refugee camp was reported on May 14, 2020.** A recent study estimated that COVID-19 could result in the deaths of between 1 in 201 and 1 in 281 people living in Rohingya refugee camps in Bangladesh, if transmission occurred and no preventative measures were put in place.** Yet, identifying cases and providing adequate health support remains difficult. Health services are poorly funded, rates of testing are low, and preventative measures, such as sanitisation and information campaigns are limited due to cuts in internet provision. This is compounded by severe access restrictions to the camps for humanitarian workers. If these predictions are borne out amongst the over 2.6 million people living in refugee camps worldwide, thousands of people may die.** These estimates do not even include those outside of refugee camps but living in similar circumstances, such as the 41.3 million people in internal displacement camps without adequate health and social supports **xiv*. In Syria, with millions of people displaced across the country, confirmed cases have already been noted, yet access restrictions imposed by parties to the conflict continue, with deliberate attacks on hospitals. In other countries, it was impossible for governments to obtain access to ventilators or personal protective equipment.

Lockdowns and reduced travel between countries have provided a temporary reprieve from widespread circulation of the virus. However, where countries reopened for travel and economic activity, new outbreaks were soon seen – as in the recent experiences of Australia and Vietnam.**xv. xxvi

Global outbreak, local concern

In countries that faced the coronavirus early on, residents are concerned about domestic cases, hospital capacities, and the indirect impacts of control measures such as quarantines, but it transpires they are also deeply concerned about the global impacts of COVID-19, including the potential 'butterfly effects' of future waves, i.e. local infections leading to infection in many other countries.

A survey undertaken in seven of the top 12 development aid donor countries revealed that 83 per cent believe the world is interconnected and that their country is at risk while the rest of the world still has COVID-19 infections. 77 per cent are concerned about a second wave⁹, and 61 per cent believe their government should increase its development spending to tackle COVID-19 and prevent it from spreading.

The public concern about multiple waves of COVID-19 is understandable not least when one considers the risk to the most vulnerable – those aged 70 and above, and/or those with at least one underlying health condition that creates increased susceptibility to COVID-19. Among 10 of the top donor countries¹⁰, as of late July, 84.8 per cent of deaths from COVID-19 were among older people – typically aged 70 and above. Data from the UK and US after the 1918 influenza pandemic suggested that as least as many people died in the second wave of infection as in the first. If the same happened with a second wave of COVID-19, almost 466,000 vulnerable people could die in those ten donor countries alone. What is more, while the most significant threat from COVID-19 was initially to older people and those with health conditions, the threat to younger people and children is increasing. **xvii, xviii**

⁸ https://www.hrw.org/news/2020/04/28/bangladesh-covid-19-aid-limits-imperil-rohingya

⁹ This question was asked in six countries of the seven countries.

¹⁰ Those countries where World Vision has an office: United States, United Kingdom, Germany, Japan, France, Netherlands, Canada, Italy, Switzerland, Australia.

In countries with weaker health and social welfare systems, or among displaced populations, the death toll among vulnerable people will inevitably be much higher. Donor countries must act to prevent unnecessary deaths across the world, and to create access to resources where none has yet been possible. Not only is it their moral obligation, but it is also the only way to eradicate COVID-19 globally – otherwise, everyone remains vulnerable to future waves as COVID-19 moves throughout the world, and shifting epicentres will continue to create smaller, butterfly effect ripples in neighbouring countries, and reintroduce infections into previously controlled areas.

Our world is better positioned than ever before to prevent a second wave. Unlike in 1918, many countries have better health services, stronger global communication and support networks, plus an understanding that we are only as strong as our weakest health system. With a comprehensive understanding of what has and has not worked in our approach to the first wave of COVID-19, and with fierce and coordinated political will, we can mitigate the impacts of a second wave.





Recommendations to prevent and mitigate additional waves

There are many programme- and policy-specific interventions that are also critical for a strong response and recovery. Below, we cover a few including shutdowns/lockdowns, physical distancing, contact tracing and testing, vaccines and the potential of antivirals. These recommendations may apply in differing degrees in different contexts. For each one, it is critical that countries understand what they are sufficiently resourced to do, and which interventions will minimise the indirect consequences on their residents while maximising their protection from COVID-19.

I) Shutdowns/ lockdowns

Many countries have implemented some form of lockdown or shutdown in order to control the virus with positive results. A study released in pre-print by *Nature* found that, in various combinations with travel restrictions, physical distancing, and supportive sick leave, an estimated **530 million** infections and **62 million** confirmed cases were averted in six countries (China, South Korea, Italy, Iran, France, and the United States).**

Similar interventions are estimated to have prevented approximately **3.1 million deaths** across II European countries, and lowered virus transmission by 82 per cent on average.**

Where well-supported by social systems, such as in the Indian state of Kerala, they've kept COVID-19 caseloads to a minimum.** However, they also have the power to do incredible harm through indirect impacts that take away livelihoods and access to services.***

In many countries, the majority of jobs largely take place in the informal economy. With COVID-19 lockdowns, these jobs have dissipated, and millions of people have been left without a source of income.**

Across countries in Africa, 69 per cent of people are reporting that they are currently earning less than 50 per cent of pre-COVID income, and 59 per cent of respondents have been forced to turn to a common coping mechanism: spending less on nutritious food.**

A lack of social protection systems often compounds the devastating impacts of job loss. As such, millions of people are facing poverty and hunger at increasing rates, leading to desperate decisions.**

Vith COVID-19

Lockdowns and shutdowns have also proven difficult to implement in refugee and internal displacement camps, urban slums and informal settlements where overcrowding is common and access to health and social services is limited. Yet these are the very places where people are the most vulnerable, as density increases the likelihood of transmission, and those infected are less able to be treated or supported, as seen in the analysis of the vulnerabilities facing Bangladesh's refugee camps.**xxxvi

Testing and tracing, which is detailed in the section below, provides greater flexibility for maintaining 'business as usual' – enabling people to go to work, go to school, and access services. However, in the absence of widespread immunity, lockdowns and shutdowns may be the necessary last option if cases continue to increase, or if a significantly large second wave emerges.

As we progress into any second (or subsequent) waves, World Vision recommends:

- Governments and organisations must ensure that adequate planning has been done to mitigate the potential negative impacts due to lockdowns through cash and voucher provision, door-to-door provision of nutritious food, and adapted protection systems for women and children, who are highly vulnerable to violence.
- Governments and organisations ensure continuity of the supply chain at national, regional and international level for essential commodities and services to preserve their lives and livelihoods assets, and should support the UN shared services capacity to quickly move more essential goods and people in support of the COVID-19 humanitarian response, including greater pre-positioning of critical resources (food, cash, medical/health supplies, etc.) as close to affected populations as possible and frontloading food/cash distributions for two to three months.
- Donors must fully fund the UN Global Humanitarian Response Plan (GRHP). This must be done in addition to ensuring full funding of existing humanitarian operations through country and response-specific appeals. Donor support of the GHRP and ongoing appeals (e.g. HRPs, RRPs, RMRP) must address the direct and indirect or secondary impacts of the pandemic.

2) Physical distancing and masks

Where lockdowns and shutdowns may do more harm than good, physical distancing (also referred to as social distancing) options can offer some protection against disease transmission with less severe impacts on the economy and personal livelihoods. Creating smaller social networks with others who are geographically close and who typically interact with the same people or visit the same settings can reduce opportunities for COVID-19 to spread; this can include developing smaller bubbles with other people or families, and avoiding non-essential contact outside of these bubbles.**

Without a vaccine, physical distancing measures are also necessary in order to minimise transmission while protecting critical care capacity.**

Where physical distancing is more challenging, or in indoor/poorly ventilated spaces, wearing multi-layer cloth or medical-grade masks can also mitigate transmission of COVID-19 by up to 85 per cent.**xxix,xl

In combination, these policies can enable people to resume some measure of day-to-day activities, including those involving income generation and livelihoods, while also mitigating transmission risks – a critical balance. Given this, World Vision recommends that:

- Governments find alternatives to shutdowns or lockdowns in countries where they are creating more harm than benefit to the population. This requires doing a comprehensive assessment of the indirect harms that may be caused, as well as mapping all available social supports, before implementing lockdowns or shutdowns.
- Governments make masks available to all citizens, in sufficient numbers to be worn daily, and implement mandatory mask requirements where possible for areas where transmission is more likely, such as indoor public spaces.
- Governments and donors should ensure that masks are comprehensively available to contexts or countries where they are difficult to obtain, or where resources are limited.

3) Contact tracing, testing, and isolation

A clear and coordinated approach to contact tracing, testing, and isolation can help to prevent against new infections^{xli, xlii}, and is necessary for countries to be able to safely exit lockdowns and shutdowns while continuing to protect residents. Tracking the contacts of all newly diagnosed cases ensures that those with whom they have come in contact, and those who are susceptible, can themselves be tested. They can also be advised to isolate for an appropriate period in order to ensure that they don't continue to pass on the virus. When these strategies are used in combination, they can reduce transmission by 50-60 per cent, compared to reductions of 2-30 per cent when using only mass testing and self-isolation.^{xliii}

The benefits of contact tracing, testing, and isolation have also been proven in many countries during the first wave of infections. XIIV Unlike lockdowns and shutdowns, these interventions can be executed while reopening economies and services, providing both health and economic benefits.

However, as with lockdowns and shutdowns, these interventions are more challenging to carry out in low-income countries. Many countries lack testing capacity, whether through limited access to testing technology or the absence of government systems and structures by which to implement them.*\text{\text{V}} Many fragile contexts, such as Afghanistan and Somalia, are currently having to fly their testing samples to other countries to be processed, leading to significant delays in diagnosis and management of cases and contacts. In these contexts, it is critical for donors and responding organisations to provide interim funding, testing capacity, and training to ensure that this option is integrated into as many countries as possible.

The Access to COVID-19 Tools (ACT) Accelerator, a joint initiative of the World Health Organization, the Bill and Melinda Gates Foundation (BMGF), the Coalition for Epidemic Preparedness Innovation (CEPI), Gavi the Vaccine Alliance, Global Fund, UNITAID, Wellcome Trust, private sector partners, and other stakeholders, was recently launched to provide time-limited, leadership on the development, production and equitable global distribution of new COVID-19 essential health technologies. This initiative is providing valuable expertise on testing technologies. In addition to supporting this initiative, World Vision recommends that:

- Governments and donors commit funding to manufacturing and scaling-up rapid diagnostic tests, ensuring access through appropriate channels.
- Governments, donors, and service providers ensure that low- and middle-income countries are provided with training and support on contact tracing, testing, and isolation protocols and best practices, including ensuring that local testing capacity is made possible.

4) Vaccines and antivirals

To minimise, or even eradicate, COVID-19 transmission it will be critical to develop and distribute a vaccine. Although the exact coverage numbers to achieve herd immunity are unknown, comprehensive vaccination will increase the proportion of people protected against the virus, and reduce opportunities for transmission.*Viv Over time, it will help to minimise or eliminate the virus that causes COVID-19. In order to achieve this, it will be necessary to ensure that global access is comprehensive and equitable, or COVID-19 transmission will continue to occur.

Progress is moving quickly – there are currently 29 candidates in clinical evaluation, and a further 138 in pre-clinical development. But progress is also fragmented, without clear leadership, and comprehensive funding and planning for distribution are required.

¹¹ As of August 13, 2020 at https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines

Although funding for^{x|v|i} and progress towards a vaccine is positive, vaccine development and deployment will require further funding, coordination, and political will. We recommend that:

- Governments must commit to providing equitable access to vaccines across the globe. The protectionism and nationalism of some countries' approaches to COVID-19 response presents a significant threat in this area, and one that is misguided unless vaccines are provided equitably across all countries, COVID-19 will not be sufficiently controlled, and it will return to other countries where some may have chosen not to receive the vaccine.
- Governments and organisations must implement comprehensive campaigns to build support for the COVID-19 vaccine in advance of its arrival, ensuring that citizen uptake will be high enough to create herd immunity.
- Governments and donors must engage with the ACT Accelerator and global health leaders to ensure coordinated funding for vaccine manufacturing to the scale needed.
- Global health agencies and governments must coordinate with private sector actors and regulators to streamline and expedite regulatory processes to ensure that vaccines are licensed as quickly as possible while maintaining safety concerns.



Appendix I – Methodology

For the purposes of this report, it was important to understand the potential size and scale of subsequent waves of COVID-19. However, as the virus is new and there are still many uncertainties surrounding its capacity for infection, morbidity, and mortality, we looked to historical trends in order to get a sense of what may occur in the future.

The 1918-1919 Spanish influenza pandemic is most frequently referred to as a comparator for this pandemic. Although estimates vary, it is believed that it caused an estimated 50 million deaths and infected 25-30 per cent of the world's population. However, due to limited data collection and retention, specific global burdens for each wave are difficult to identify. We took data from the U.S. Centers for Disease Control, which estimated that 28 per cent of total U.S. deaths from the influenza pandemic occurred during the second wave, which they noted was the highest of all waves. They also noted that similar patterns were observed in the United Kingdom, where a much higher (and more fatal) peak was observed during the second and third waves. Without complete data available from the historical figures, we used an estimated equal second wave as our lower point – an effective doubling of numbers from the first wave.

If we saw similar patterns in our second wave projections, we could expect to see at minimum an equal second wave, or potentially higher. Based on these experiences, we estimated what would happen if this situation were replicated in the case of COVID-19.

As of August 19, 2020, Johns Hopkins University's COVID-19 tracker noted over 22,164,230 confirmed COVID-19 cases and more than 781,500 confirmed deaths across 216 countries, areas or territories. Assuming that existing cases are a continuation of the first wave rather than the commencement of a second wave (an active discussion amongst researchers and policymakers), a doubling of these numbers would result in over 44 million cases, and over 1.56 million deaths.

As data collection and an understanding of the disease continue to unfold, our knowledge will likely change, and these projections may as well. However, in order to be best prepared and focused on protecting the most vulnerable, we felt that it was important to identify the potential impacts on vulnerable populations. For the countries where our survey was conducted, the most vulnerable are those 65+ or 70+.

TABLE 2: DEATHS BY COUNTRY IN POPULATIONS
65+ OR 70+ DUE TO COVID-19

Country	% deaths 70+	# deaths over aged 70*	Cumulative figures, assuming equal second wave ^{li,lii}
Australia	91.73%	388	776
Canada	89.61%	8,020	16,040
France	80.85%	15,915	31,830

Germany	85.51%	7,894	15,788
Italy	85.37%	30,429	60,858
Japan	79.33%	871	1,742
Netherlands	82.45%	5,465	10,930
Switzerland	89.23%	1,532	3,064
United Kingdom	84.72%	43,892	87,784
England and Wales	46736	39257	78,514
Scotland*	4213	3837	7,674
Northern Ireland*	859	798	1,596
United States*	79.46%	118548	237,096
Average/Totals	84.82%	232,954	465,908

^{*} aged 65+ in Scotland, and U.S.; 60+ in Northern Ireland

Country	Data Source	Data End Date
Australia	https://www.health.gov.au/resources/covid-19-deaths-by-age-group-and-sex	19-Au
Canada	https://health-infobase.canada.ca/covid-19/epidemiological- summary-covid-19-cases.html#a5	18-Aug-20
France	https://dc-covid.site.ined.fr/en/data/france/	26-Jul-20
Germany	https://www.rki.de/DE/Home/homepage_node.html	18-Aug-20
Italy	https://dc-covid.site.ined.fr/en/data/italy/	II-Aug-20
Japan	https://toyokeizai.net/sp/visual/tko/covid19/en.html	17-Aug-20
Netherlands	https://www.statista.com/statistics/1109459/coronavirus-death-casulaties-by-age-in-netherlands/	II-Aug-20
Switzerland	https://www.statista.com/statistics/1110092/coronavirus-covid-19-deaths-age-group-switzerland/	18-Aug-20
United Kingdom		
England and Wales	https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsinvolvingcovid19englandandwales/deathsoccurringinjune2020	March - June 30, 2020
Scotland	https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/general-publications/weekly-and-monthly-data-on-births-and-deaths/deaths-involving-coronavirus-covid-19-in-scotland	up to July 9 2020
Northern Ireland	https://files.nisra.gov.uk/Deaths/Weekly-Deaths-Dashboard.html	up to August 7 2020
United States	https://data.cdc.gov/widgets/9bhg-hcku	12-Aug-20

Appendix 2 – Survey

APPENDIX: SURVEY DATA^{12,13}

	Aus	Australia Canada		Germany Japan		Netherlands		Switzerland		United Kingdom				
Survey Dates	12-19 Au	ıgust	14-19 May		12-19 August		12-19 August		12-19 August		12-19 August		7-10 August	
Sample Size	1056		2087		2190		1001		1000		1000		2073	
Question	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree
Life won't return to normal unless COVID-19 controlled in all parts of the world	82%	14%	82%	12%	74%	20%	86%	10%	76%	21%	74%	23%	84%	12%
An outbreak in another part of the world will impact my country	84%	12%	88%	7%	73%	17%	90%	7%	81%	15%	74%	22%	89%	7%
Normal life can't return if there are spikes in COVID-19 cases in other parts of the world	73%	22%	80%	14%	74%	19%	82%	14%	70%	24%	71%	26%	72%	20%
Are you worried about a second wave?	79%	18%	-	-	66%	29%	87%	9%	84%	14%	66%	32%	77%	20%
Government should increase ODA spend to combat COVID-19 in other parts of the world	61%	31%	79%	21%	58%	31%	52%	37%	60%	33%	60%	34%	54%	36%

¹² For each question, there was a percentage who were unsure, or didn't know, which are not included on the table 13 All figures, unless otherwise stated, are from YouGov Plc. Total sample size and Fieldwork dates are as above. The survey was carried out online. The figures have been weighted and are representative of all adults in each country (aged 18+).

Survey questions in full:

AWV_QI_I. 'I believe that, until a vaccine is found, unless COVID -19 is controlled in all parts of the world, we won't really be able to return to normal life here in \$market

AWV_QI_2. 'I believe that our world is so interconnected that an outbreak of COVID-I9 in another part of the world could impact \$market'

AWV_QI_3. 'I believe that even if \$market reduces domestic transmission rates, normal life can't return (i.e. the movement of people and goods) if there are spikes in COVID-19 cases in other parts of the world'

AWV_Q2. How worried, if at all, are you about the occurrence of a second wave of coronavirus in \$market within the next six months (i.e. between now and early February 2021)? (Please select the option that best applies)

AWV_Q3. How acceptable, if at all, do you think it is for \$market Government to increase the amount of money it spends on development aid (i.e. financial aid given to developing countries) in order to tackle the Coronavirus and help manage its spread within these countries?

The survey in Canada was conducted by Abacus Data and questions were worded slightly differently, as below.

- Our world is so interconnected that an outbreak of COVID-19 in another part of the world could impact Canadians again
- Before a vaccine is found, unless COVID-19 is controlled in all parts of the world, we won't really be able to return to normal life here in Canada
- Even if Canada flattens the curve, normal life can't return (like the movement of people and goods) if there are spikes in COVID-19 cases in other parts of the world
- Do you think it is a very good idea, a good idea, an acceptable idea, a bad idea, or a very bad idea for the Government of Canada to increase the amount of money it spends on development assistance focused on helping those in refugee or displaced persons camps impacted by COVID-19?



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- ** Truelove S, Abrahim O, Altare C, Lauer SA, Grantz KH, Azman AS, et al. (2020) The potential impact of COVID-19 in refugee camps in Bangladesh and beyond: A modeling study. PLoS Med 17(6): e1003144. https://doi.org/10.1371/journal.pmed.1003144
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- *** https://www.ifpri.org/blog/covid-19-lockdowns-are-imposing-substantial-economic-costs-countries-africa
- **** Truelove S, Abrahim O, Altare C, Lauer SA, Grantz KH, Azman AS, et al. (2020) The potential impact of COVID-19 in refugee camps in Bangladesh and beyond: A modeling study. PLoS Med 17(6): e1003144. https://doi.org/10.1371/journal.pmed.1003144

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iv https://www.wvi.org/publications/report/coronavirus-health-crisis/aftershocks-out-time

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- $^{\rm xl}$ In Japan, where masks were commonly used during flu season or when otherwise ill, these estimates were born out despite a lack of consistent interventions beyond masks, Japan has been able to control its infections, and keep its total number of deaths below 1,000 https://www.nytimes.com/2020/06/06/world/asia/japan-coronavirus-masks.html
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- https://cmmid.github.io/topics/covid19/reports/bbc_contact_tracing.pdf
- xiiv China, Singapore, Taiwan, South Korea, Germany, Rwanda, and Iceland all employed comprehensive and coordinated approaches to these interventions, testing widely and ensuring contacts were self-isolating. These countries were also, by and large, able to control their rates of infection, and in some cases prevent them (or new outbreaks) entirely https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7185949/
- xlv https://www.un.org/development/desa/dpad/publication/un-desa-policy-brief-66-covid-19-and-the-least-developedcountries/
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- xivii On May 4, 2020, the European Commission—in partnership with Germany, the United Kingdom, Norway, France, Japan, Italy, and Canada—held the Coronavirus Global Response Pledging Conference. This virtual pledging event raised 7.4 billion euros toward the COVID-19 response, with a large proportion supporting research and development for vaccines and other therapeutics.

Gavi, the key global health agency focused on immunisation in low- and middle-income countries, recently celebrated a successful replenishment of its work through to 2025. Donor countries and organisations committed \$8.8 billion towards global vaccination campaigns, including US\$567 million towards the Gavi Advance Market Commitment for COVID-19 Vaccines (Gavi Covax AMC), a new financing instrument that will ensure access to COVID-19 vaccines for low- and middle-income countries by incentivizing production and access for low- and middle-income countries. If fully funded to its \$2 billion projection, the Gavi Covax AMC will ensure that there are enough vaccines for Gavi-supported countries to immunise health care workers and high-risk individuals, with additional vaccines that can be used where most needed. https://www.gavi.org/news/media-room/gavi-launches-innovative-financing-mechanism-access-covid-19-vaccines xiviii https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2720273/; (Jeffery K. Taubenberger and David M Morens,

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World Vision

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