

# Contained or contagious?

The future of infectious disease in ageing societies



**Health and care**

Retirement

Community

**Prevention**

International

**Immunisation**

Social care

Carers

Diseases and conditions

## About the ILC

The International Longevity Centre UK (ILC) is the UK's specialist think tank on the impact of longevity on society. The ILC was established in 1997, as one of the founder members of the International Longevity Centre Global Alliance, an international network on longevity.

We have unrivalled expertise in demographic change, ageing and longevity. We use this expertise to highlight the impact of ageing on society, working with experts, policy makers and practitioners to provoke conversations and pioneer solutions for a society where everyone can thrive, regardless of age.



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## Introduction

Increased longevity should be celebrated as one of society's greatest accomplishments. However, there is still a lot of work to be done to adapt to the new profile of our ageing society if we are to maximise the potential benefits of longevity. And health systems have a key role to play in this.

2018/19 marked the centenary of the deadly Spanish flu (influenza) pandemic. As part of a global programme to explore how policymakers should address the issue of infectious disease in the future, the ILC organised a series of discussion events bringing together policymakers, health systems experts and practitioners in Toronto, London and Boston. This was an opportunity to discuss global progress in tackling infectious disease since the pandemic ended in 1919, the challenges faced by the global community in the context of an ageing population, and how governments, industry and civil society can be better prepared for future outbreaks of infectious disease.

This report draws input from the meetings in Toronto, London and Boston. It argues that although we've made huge strides in combatting infectious disease, through improvements in hygiene and sanitation, clean water and preventative health interventions such as vaccinations, there is no room for complacency.

Recent decades have seen renewed infectious disease pandemics. A number of risk factors are currently increasing the likelihood of future outbreaks: these include complacency around vaccination uptake, lack of awareness of the risks of infectious disease, anti-microbial resistance, climate change and global population migration.

In an ageing society, in which more of the population have multiple conditions, there tends to be a higher incidence rate of infectious disease as well as a higher rate of medical complications resulting from disease.

To adequately prepare for future outbreaks, we need:

- Greater investment in preventative interventions throughout people's lives;
- Greater international cooperation on infectious disease risks;
- Better digital records that share patient health information with all healthcare actors;
- Better access to preventative health services for people of all ages, abilities and in all locations;
- Consistent messaging across government, healthcare professionals and civil society on the risk of infectious disease and the promotion of healthy behaviours;
- Personalised awareness campaigns that foster champions for infectious disease prevention.

## Infectious disease: then, now and in the future

### The Spanish flu

The 1918-1919 Spanish flu pandemic was caused by an influenza virus known as H1N1. The first recorded cases were in the United States, in the final year of World War I. The virus quickly spread across countries among troops and civilians. Symptoms included fever, shortness of breath, blue-tinged skin resulting from a lack of oxygen, vomiting and nosebleeds.

The outbreak not only affected the very young and the very old, but also healthy adults between the ages of 20 and 40.<sup>1</sup> It infected around 500 million people, which was a third of the world's population at the time, killing between 50 and 100 million.<sup>2</sup> The pandemic claimed more lives than World War I or the Black Death; it killed more people in 24 weeks than AIDS has done over 24 years.<sup>3</sup>

### Infectious diseases today

The number of deaths from infectious disease has fallen since that time. This is due to factors such as better access to clean water, improved hygiene, a reduction of the number of people in absolute poverty, and investment in preventative health measures. Deaths from vaccine-preventable diseases in the US have decreased from about two per 100,000 people in 1980 to less than one per 100,000 in 2014.<sup>4</sup>

However, this is no cause for complacency. Considering influenza alone, the past decades have seen a million deaths from Asian flu in the 1950s, around 500,000 people infected by the 1968 Hong Kong flu, and most recently the 2009 global H1N1 pandemic, which caused between 150,000 and 500,000 deaths.<sup>5</sup> The overall death

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<sup>1</sup>National Geographic (2018). "Inside the Swift, Deadly History of the Spanish Flu Pandemic". Available from: <https://www.nationalgeographic.com/archaeology-and-history/magazine/2018/03-04/history-spanish-flu-pandemic/>

<sup>2</sup>Taubenberger, J. Morens, D. (2006). "1918 Influenza: the Mother of All Pandemics". In: *Emerging Infectious Disease*, 12(1): 15–22. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3291398/>

<sup>3</sup>The New York Times (2004). "Virus Alert". Available from: <https://www.nytimes.com/2004/03/14/books/virus-alert.html>

<sup>4</sup>Hansen, V. Oren, E. Dennis, L. (2016). "Infectious Disease Mortality Trends in the United States, 1980-2014". In: *Journal of the American Medical Association*, 2016;316(20):2149-2151. Available from: <https://jamanetwork.com/journals/jama/full-article/2585966>

<sup>5</sup>Centers for Disease Control and Prevention (2018). "Past pandemics". Available from: <https://www.cdc.gov/flu/pandemic-resources/basics/past-pandemics.html>

rate from infectious disease increased between 1980 and 1995, mainly due to the rise of HIV.<sup>6</sup> Deaths from vector-borne disease (infections transmitted by insects, snails or inanimate sources like dust) also increased, from two per 10 million in 1980 to five per 10 million in 2014.<sup>7</sup>

“We are beginning to think that we can beat any illness, and we can’t.” *Baroness Sally Greengross OBE*

Lower-income countries are disproportionately affected, with the majority of deaths in lower-income countries caused by infection in 2010.<sup>8</sup> This is partly due to the fact that an estimated 2.4 billion people still lack access to adequate sanitation.<sup>9</sup> As such, the burden of infectious disease, including pneumonia, HIV, TB and malaria, persists.

However, even richer countries have not overcome the threat of infectious disease. Pneumonia and influenza remain the most dangerous infectious diseases in the US, accounting for about 40% of deaths from infectious disease.<sup>10</sup>

### Future risk factors

Viruses change all the time, either through gradual seasonal changes (antigenic drift), or through genetic-level mutation (antigenic shift), which can occur, for instance, as a result of reintroduction from another species. A simple mutation may allow a virus to begin spreading from person to person - and this can be enough to cause a pandemic. This makes the risk of a future pandemic very real at any given time.<sup>11</sup>

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<sup>6</sup>Hansen, V. Oren, E. Dennis, L. (2016). "Infectious Disease Mortality Trends in the United States, 1980-2014". In: *Journal of the American Medical Association*, 2016;316(20):2149-2151. Available from: <https://jamanetwork.com/journals/jama/fullarticle/2585966>

<sup>7</sup>Hansen, V. Oren, E. Dennis, L. (2016). "Infectious Disease Mortality Trends in the United States, 1980-2014". In: *Journal of the American Medical Association*, 2016;316(20):2149-2151. Available from: <https://jamanetwork.com/journals/jama/fullarticle/2585966>

<sup>8</sup>Dye, C. (2014). "After 2015: Infectious diseases in a new era of development". In: *Philosophical Transactions B*, 2014 Jun 19; 369(1645): 20130426. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4024220/>

<sup>9</sup>United Nations (2019). "Goal 6: Ensure access to water and sanitation for all". Available from: <https://www.un.org/sustainabledevelopment/water-and-sanitation/>

<sup>10</sup>Hansen, V. Oren, E. Dennis, L. (2016). "Infectious Disease Mortality Trends in the United States, 1980-2014". In: *Journal of the American Medical Association*, 2016;316(20):2149-2151. Available from: <https://jamanetwork.com/journals/jama/fullarticle/2585966>

<sup>11</sup>Centers for Disease Control and Prevention (2017). "How the flu virus can change: "Shift" and "Drift"". Available from: <https://www.cdc.gov/flu/about/viruses/change.htm>

"All it requires is that it becomes easily transmissible from person to person and it's a pandemic. So, the hard thing to predict is whether the pandemic is going to be a big killer like in 1918 or if it's going to be like the 2009 [H1N1 pandemic]." *Stefan Gravenstein, Brown University*

Recent global developments have exacerbated this risk. These include: the rising threat of antimicrobial resistance; an ageing population, which increases the incidence rate of infectious disease; climate change, which threatens to increase the likelihood of the spread of infectious diseases<sup>12</sup>; and increased global migration and travel, which contribute to disease spreading more quickly.

"We're no longer in a situation where it takes days to move between places. The risk of an epidemic spreading globally - and rapidly- is very real." *Stephen Baxter, Hymans Robertson*

Suffering from an infectious disease has compounding effects on an individual's general health, especially in older patients. For instance, within one week of contracting the flu, the incidence rate for stroke and heart attack is significantly heightened.<sup>13</sup> Seasonal flu vaccination reduces the risk of stroke and heart attack to an extent that is equivalent to quitting smoking or taking cholesterol or blood pressure medication.<sup>14</sup>

This has not only social and welfare, but also economic implications. A study in *Health Affairs* estimates that the impact of vaccine-preventable diseases alone accounts for \$9 billion of annual health and care costs in the US.<sup>15</sup> This figure can only be expected to rise as society ages.

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<sup>12</sup>Campbell-Lendrum, D. Manga, L. Bagayoko, M. Sommerfeld, J. (2015). "Climate change and vector-borne diseases: what are the implications for public health research and policy?". In: *Philosophical Transactions B*, 2015 Apr 5; 370(1665): 20130552. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4342958/>

<sup>13</sup>Warren-Gash, C. Blackburn, R. Whitaker, H. McMenamin, J. Hayward, A. (2018). "Laboratory-confirmed respiratory infections as triggers for acute myocardial infarction and stroke: a self-controlled case series analysis of national linked datasets from Scotland". In: *European Respiratory Journal*, 2018 51: 1701794. Available from: <https://erj.ersjournals.com/content/51/3/1701794>

<sup>14</sup>Udell, J. et al. (2013). "Association between influenza vaccination and cardiovascular outcomes in high-risk patients: a meta-analysis". In: *Journal of the American Medical Association*, 310 (16): 1711-1729. Available from: <https://jamanetwork.com/journals/jama/fullarticle/1758749>

<sup>15</sup>Ozawa, S. et al. (2016). "Modelling the economic burden of vaccine-preventable diseases in the United States". In: *Health Affairs*, 35 (11). Available from: <https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2016.0462>

As such, preventing and containing infectious diseases is vital, especially in an ageing society. Discussion participants agreed that national health systems must take preventative measures to address infectious disease, in order to avoid the potentially catastrophic consequences of a future pandemic.

“We are now facing health matters that are absolutely crucial.”  
*Natasha McEnroe Science Museum*

However, academics and policymakers alike were concerned about growing levels of complacency among governments and society at large about the risks of infectious disease.

“When we are faced with another pandemic - and that is a definite - do we have sufficient resources to deal with it?”, *Nicola Oliver, Medical Intelligence*

The ILC discussions identified a number of factors that have combined to cause a shift away from tackling infectious disease, including:

- Scarcity of funding for preventative healthcare due to widespread austerity measures;
- Lack of coordinated information recording and record sharing between health professionals to ensure patients receive the best possible care;
- Lack of access to preventative interventions, especially in rural areas or for those with limited mobility;
- Complacency and a lack of awareness on the part of the public concerning the dangers of infectious disease;
- Vaccine hesitancy reducing vaccine uptake.

Participants agreed that to prevent future outbreaks, governments, industry and individuals have a collective responsibility to overcome these challenges.

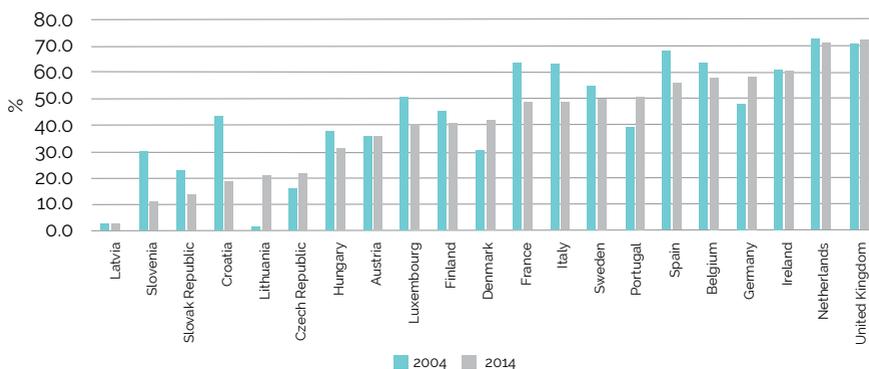
## Preventing future outbreaks of infectious disease

### Reframing the prevention of infectious diseases as a public health priority

The World Health Organization (WHO)'s ten threats to global health in 2019<sup>16</sup> include the global influenza pandemic, HIV and Ebola. However, the ILC discussions revealed a growing concern that we are not adequately addressing the risk of infectious disease, limiting the global community's ability to effectively prevent and control it.

For instance, in spite of the proven health benefits of flu vaccination, only around a third of older people ( $\geq 65$  years old) in Europe are currently vaccinated. This leaves the majority at risk in the case of an outbreak (see Figure 1).<sup>17</sup>

**Figure 1: Influenza vaccination coverage among older people in member states of the WHO European Region in 2004 and 2014**



Source: OECD and Eurostat 2016 and Eurostat 2016

Furthermore, despite governments across the world publicly committing to a greater focus on prevention<sup>18</sup>, spending has been falling across Organization for Economic Co-operation and

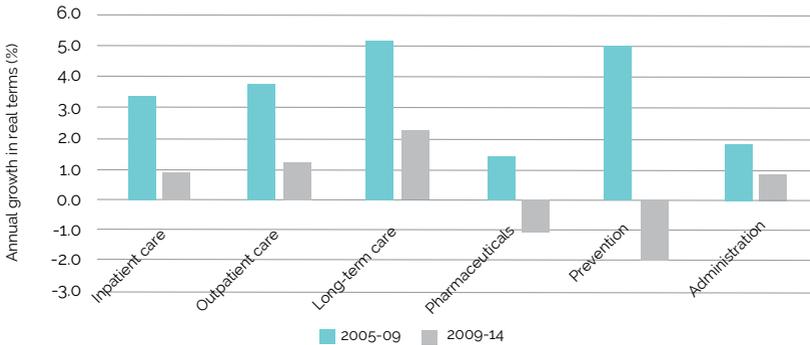
<sup>16</sup>WHO (2019). "Ten threats to global health in 2019". Available from: <https://www.who.int/emergencies/ten-threats-to-global-health-in-2019>

<sup>17</sup>Jorgensen, P. et al. (2017). "How close are countries of the WHO European Region to achieving the goal of vaccinating 75% of key risk groups against influenza? Results from national surveys on seasonal influenza vaccination programmes, 2008/2009 to 2014/2015". In: *Vaccine*, 36 (4): 442-452. Available from: <https://www.sciencedirect.com/science/article/pii/S0264410X17317620>

<sup>18</sup>G20 Leaders communique (2019). Available from: [https://www.consilium.europa.eu/media/40124/final\\_g20\\_osaka\\_leaders\\_declaration.pdf](https://www.consilium.europa.eu/media/40124/final_g20_osaka_leaders_declaration.pdf)

Development (OECD) member countries. Between 2009 and 2014, their public spending on prevention fell by two percent (see Figure 2).

**Figure 2: Spending on medical care in OECD countries from 2005 to 2014**



Source: OECD and Eurostat 2016. Data - Per head, at constant prices (2010) and constant PPPs (2010). In US dollars

Participants agreed that national governments must join efforts and allocate more funding to preventative interventions throughout people’s lives, as an investment in the future wellbeing and productivity of our ageing society.

“...that translates to putting money into preventive efforts – public health funding or whatever it may be. That translates into covering vaccinations through Medicare programmes in the United States, which many still do not do. That translates into supporting manufacturers as they go through what’s called the “valley of death” in the development process, to make sure that effective vaccines targeting conditions that people really want... are actually making it to market, and getting the recommendations that the manufacturers need to stay in business, [both] to produce those vaccines and to continue to do R&D. So if you’re talking about big P policy, I think these three [areas] are [vital].” *Elizabeth Sobczyk, Gerontological Society of America*

“You have a public policy [environment] that doesn’t really support innovation in this area, you know. Developing the next new antibiotic isn’t really high on the list for a lot of research-based organisations. It’s not as big a market as for treatment of chronic disease.” *Thomas E. Menighan, International Federation of Pharmacists*

## Improving digital records

To support healthy behaviours and preventative interventions throughout people's lives, we need infrastructure that can effectively record, share and remind people of upcoming vaccinations and other preventative interventions. However, participants agreed that in most countries, digital records and data sharing systems are not adequate or fail to interact with each other.

"I think some of the reporting systems are evolving but they're by no means perfect in the US. ...when pharmacies do vaccines, we report them but the systems don't really interact with each other, so we really have a lot of work to do. We very much want the world to know the vaccinations we're doing but [that information] might just sit in the public health department for a community and not go any further." *Thomas E. Menighan, International Federation of Pharmacists*

"The records are held by the healthcare providers and may or may not be shared with others, including the pharmacies that [these patients] go to." *Kevin O'Neil, Affinity Living Group*

Participants suggested examples of previous attempts to make health records more transparent and to ensure they can be shared between each patient's health professionals as well as accessed by the patient.

One example shared was that following Hurricane Katrina, the Louisiana state government placed adult immunisation records on the state registry along with other health records, as people were no longer able to access their records.<sup>19</sup> Files in the state registry are accessible to individuals, as well as healthcare professionals, including doctors, pharmacists and nurses. While there are still some gaps in the data, Louisiana is currently passing a bill to make it mandatory for primary care providers to transfer information to the state registry.

Other online portals to save, access and share medical records have sprung up over recent years, including the MyMedicare portal<sup>20</sup> and

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<sup>19</sup>For more information on the Louisiana Registry System, please see: <https://lars.dhh.la.gov/app/Views/Public/Login.aspx>

<sup>20</sup>For more information on the MyMedicare Portal, please see: <https://www.mymedicare.gov/>

the Next Gen Patient Portal<sup>21</sup> in the US. However, these systems rely heavily on the willingness and resources of healthcare professionals to keep details up to date, as well as the willingness of patients to engage with the data. This in turn raises accessibility barriers for those who are not digitally literate.

"[Patients] often give up the first time they lose their password. So, initially there's high uptake when they start and then it dies down."  
*Thomas E. Menighan, International Federation of Pharmacists*

Another proposed innovation was the VeriChip, an injectable identification microchip to store medical records.<sup>22</sup> However, this was not rolled out due to privacy and identity theft concerns.

More recently, a medical student in India devised a digital necklace, which stores the wearer's medical history. The necklace is a medallion on a black thread, which is culturally a powerful symbol of protection and thus integrates well into people's lives. When healthcare workers visit a village, they can easily scan, read and update information using a smartphone. The necklace has been found to be five times less likely to be lost than paper records and has increased vaccination uptake.<sup>23</sup>

In summary, the ILC discussions identified a number of innovations that address the current failings of health systems to create easy-to-access, integrated, shared health records. However, participants agreed that digital record management requires improvement at a system level to make each patient's medical history available to all involved in their healthcare. The system should also remind patients of upcoming preventative interventions, especially patients who aren't in the health system and those who need these interventions most.

"...you've got interconnected interoperable systems within health systems but people don't live in health systems, and so they circle out of that for most of their lives and they're in their communities and there's no cooperability with their community pharmacies, with their primary care doctors and that sort of thing. And in most cases,

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<sup>21</sup>For more information on the Next Gen Patient Portal, please see: <https://www.nextmd.com/ud2/Login/Login.aspx>

<sup>22</sup>MD Magazine (2007). "The VeriChip implantable microchip: the future of patient identification". Available from: <https://www.mdmag.com/medical-news/verichip>

<sup>23</sup>Vaccines Today (2019). "The 'digital necklace' saving lives in India". Available from: <https://www.vaccinestoday.eu/stories/the-digital-necklace-saving-lives-in-india/>

pharmacies and pharmacists are blinded from the electronic health record." *Thomas E. Menighan, International Federation of Pharmacists*

### Making prevention accessible

Another barrier to delivering preventative interventions to infectious disease is accessibility, especially in rural areas. This is becoming increasingly important in an ageing population where more people live with limited mobility.

"So you have... all these resources, but how do you get [people] to those resources?" *Linda Samuel, Savannah State University*

Potential solutions suggested during our discussions included an increased role for community pharmacy to deliver preventative interventions. For example, in North Carolina, more than 200 pharmacies have formed a network that not only delivers medicines but provides transport services to bring people to appointments.<sup>24</sup>

Moreover, participants discussed the potential of leveraging the sharing economy to deliver preventative interventions. For instance, the US-based healthcare transport company, Circulation, uses ride-sharing services such as Uber and Lyft to take patients to healthcare appointments.<sup>25</sup>

While the private sector has made some attempts to make preventative healthcare more accessible, participants agreed that this should be a policy priority for governments.

### Tackling negative attitudes towards prevention

While systems factors are crucial, our discussions also highlighted the significance of public attitudes to health and prevention. This is a major factor affecting individual choices relating to preventative interventions, including vaccinations, preventative medications and even hygiene practices such as handwashing. Discussions made it clear that most of the general public are not aware of the threat of infectious disease.

"We can teach it, we can teach it, we can teach it, but people don't believe it." *Barbara Resnick, University of Maryland*

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<sup>24</sup>For more information on the Community Pharmacy Enhanced Services Network (CPESN), please see: <https://www.communitycarenc.org/what-we-do/supporting-primary-care/pharmacy/cpesn>

<sup>25</sup>Uber News (2018). "Introducing Uber Health, Removing Transportation as a Barrier to Care". Available from: <https://www.uber.com/newsroom/uber-health/>

"It's not until people actually start getting sick and dying that you have some visual proof and verification that this is really legitimate."  
*April Green, Ochsner Health*

Many people alive today have limited experience of infectious diseases, especially in richer countries. Medical advances have led to the eradication of many childhood and other infectious diseases. Participants explained that most people don't feel that they have any agency or personal responsibility for the prevention of infectious disease in society.

"...there's the belief that it's not going to make a difference if I don't wash my hands. It's not going to make a difference if I don't get immunised."  
*Barbara Resnick, University of Maryland*

In the ILC's recent report on older peoples' attitudes to seasonal influenza vaccinations in the UK, Canada, Australia and Japan, we saw that many older people had doubts about the effectiveness of vaccinations and other preventative interventions.<sup>26</sup> The report also revealed that many older people associate vaccinations and other preventative health interventions with the sick and frail. This means that older people don't want these interventions.<sup>27</sup>

"Older people don't really need vaccination against flus and colds and stuff like that if they take care of their health."<sup>28</sup> *Male, Australia, participant in ILC research study on attitudes to immunisation*

Finally, participants argued that a growing "anti-vaxx" sentiment in some regions is limiting vaccination uptake, a trend exacerbated by the increasingly distorting influence of social media.

"I think that's also more true now than ever because [people are] all Doctor Internet and so they get strong confirmation bias for whatever their belief system is."  
*Stefan Gravenstein, Brown University*

These attitudes have led to the return of many previously eradicated diseases, such as measles, and an increased likelihood that infectious disease will spread and we will see an increase in limiting conditions.

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<sup>26</sup>ILC-UK (2019). "Under the skin: Listening to the voices of older people on influenza immunisation". Available from: <https://ilcuk.org.uk/under-the-skin-listening-to-the-voices-of-older-people-on-influenza-immunisation/>

<sup>27</sup>ibid

<sup>28</sup>Other quotes from the interviews conducted with older people in the UK, Canada, Australia and Japan on influenza immunisation available from: <https://ilcuk.org.uk/under-the-skin-listening-to-the-voices-of-older-people-on-influenza-immunisation/>

"We are seeing increasing resistance to Victorian age diseases that used to be easily treatable." *Helen Donovan, Royal College of Nursing (UK)*

Messaging on health promotion and preventative care must tap into people's underlying attitudes, rather than just focussing on factual education.

"...there may be a deeper reason why people don't get vaccinated. They may say "I don't need it, I don't need it," but the real issue might be they don't like the shot, they're afraid. I think motivating somebody sometimes really is that individual digging deeper. It's not "I don't have time" or other excuses. It's really down deep. It's hard, it's individual." *Barbara Resnick, University of Maryland*

Our experts discussed a number of approaches to attitudinal and behavioural change during the ILC discussions, including:

#### **Providing incentives:**

Participants discussed the role that financial and other incentives could play in increasing uptake of preventative interventions.

"People respond to financial incentives." *Thomas E. Menighan, International Federation of Pharmacists*

"Starbucks cards for HPV vaccines. I'm only half joking..." *Stefan Gravenstein, Brown University*

#### **Mandatory vaccination in care settings:**

Participants mentioned examples of care homes, hospitals and assisted living settings where immunisation is mandatory.

"I think we sort of joke, but kids can't go to school without a vaccine record but we can put people into facilities that are like college dorms without a vaccine record." *Barbara Resnick, University of Maryland*

"Click it and tick it, it's like safety belts, no one wore safety belts until a fine [was introduced]" *Lisa Brown, Palo Alto University*

"When I was [working in a care centre], we mandated it and we terminated about 50 staff because they refused [to be vaccinated] and the declinations were not for medical reasons. We've made it a condition of employment, so before the time of hire, we're requiring that everyone consents to receive the annual invitation." *Kevin O'Neil, Affinity Living Group*

### **Appealing to altruism:**

Participants argued that appealing to altruism and motivating people to adopt healthy behaviours not just for themselves but for others in the community could be a useful approach to reframing messaging around prevention.

"I remember my husband saying 'I don't think we need a flu shot.' Then we got a note from our daughter-in-law, it said: 'Make sure you have your flu shot before you take care of your granddaughter.' And there's a large proportion of grandparents caring for their grandchildren." *Linda Garcia, International Longevity Centre Canada*

"We've promoted to our associates that this is a moral obligation you have, to not only yourself but to your colleagues, people you're working with, friends, but most importantly the residents that are trusting us to care for them. And you don't want to be the one who's responsible for taking down a whole community. And I've seen it happen." *Kevin O'Neil, Affinity Living Group*

"We each of us, as citizens, have an obligation to ourselves, to our families and to our communities." *Malcolm Taylor, Global Coalition on Aging*

"You can have messages like 'Get your flu shot. Make sure the rest of the population can live as long as you have.'" *Linda Garcia, International Longevity Centre Canada*

### **Reframing ageing:**

Participants agreed that to encourage people to engage with preventative interventions throughout their lives, and especially in later life, there was a need for more positive messaging around ageing, to overcome people's negative perceptions of preventative healthcare, associated with frailty and limited functional ability.

"So, reframing ageing so that actually it's not the end and older people have a great deal to contribute to our society." *Scott Bane, The John A. Hartford Foundation*

### **Unified messaging:**

Discussion participants also noted that to effect change and counter the messaging of anti-vaxxers, it's vital to ensure unified messaging across the healthcare pathway and all parts of society, from businesses, to policymakers, to civil society organisations, to the media.

"All the noise against vaccines needs to be balanced with good noise and sound science." *Eduardo Eugenio de Gomansaro, GlaxoSmithKline*

"I think if you're talking about coordinated messaging, then you work with partners and you have places to drive them for information, and not, you know, "MyShinglesShot.com", "MyFluShot.com", "My Whatever". ...how many people can pay attention to that many websites?" *Jane Carnaby, The John A. Hartford Foundation*

"And it seems to me we could have a collective effort, you know, get multiple companies together with multiple organisations and get our collective act together and do this as a team." *Thomas E. Menighan, International Federation of Pharmacists*

"Governments, industry, all of us have to spread that message." *Baroness Sally Greengross OBE*

Some suggestions for creating integrated messaging included:

- An FAQ handbook answering all common questions on vaccination, for use by all providers that make vaccination recommendations, as well as the general public;
- Articles and blogs providing a communications framework and model language for use by the general public to help them talk to family members, friends, colleagues or neighbours about the value of preventative interventions from medication to handwashing;
- Postcards for healthcare professionals with one minute talking points on the value of preventative health interventions at all stages of life.

### **Championing change:**

All participants agreed that while education is important, what really motivates behaviour is the use of champions, from celebrities in awareness campaigns to a friend making an individual recommendation.

"Geriatrics is a team sport, we're engaging pharmacy, engaging our colleagues in nursing and getting everyone to be advocates for this. And I think the key there is leadership... you have to have leadership, then you can create that sense of urgency of how important this is, not only to oneself but to one's families, one's colleagues and to the residents. And I think that's critically important, just knowing the principles of leading change." *Kevin O'Neil, Affinity Living Group*

"...this is where it comes back to the strong provider recommendation because the provider has the chance to make the message personal. They make the risk personal and they make benefits personal, and that's the chance that you have to make the key difference... unfortunately, the media can do all they want and we can norm all that we want ... but beyond that, to understand the risks and benefits personally, is I think where parents make the decisions, where individuals make the decision, you know 'What's the risks and the benefits?'" *Jane Carnaby, The John A. Hartford Foundation*

"What you're really saying is everybody needs to be a champion."  
*Barbara Resnick, University of Maryland*

## Conclusion

A hundred years after the Spanish flu pandemic killed between 50 and 100 million people worldwide, society has made great progress in preventing infectious disease.

But as a result of lower incidence rates, reduced prevention spending and vaccine hesitancy, public focus has shifted from prevention of infectious disease.

This report concludes that there is no room for complacency. New risk factors, such as antimicrobial resistance, climate change, as well as growing global travel and migration make it vitally important for public policymakers, industry actors and individuals to work together to prioritise prevention. And these risks are exacerbated by global ageing trends.

To deliver on the WHO pledge to tackle infectious disease, governments must address general attitudes to vaccination and other preventative health interventions, improve access to healthcare and manage better digital records more effectively.

The ILC discussions between policymakers, health systems experts and practitioners proposed three key policy priorities to address the threat of infectious disease:

- Fostering a policy environment that supports prevention and innovation;
- Creating a health system infrastructure that is more accessible and transparent;
- Supporting consistent messaging on the risk of infectious disease and the importance of prevention.

The global community faces a collective challenge to ensure we are adequately prepared for the continuous threat of infectious diseases, especially in an ageing society.

"Advances in healthcare over the last century have resulted in increased longevity, and that should be counted as one of our greatest societal achievements. However, the risk of infectious disease is by no means eradicated. And indeed, with a growing share of the population in later life, a number of new risk factors spring up. We cannot be complacent about the prevention of ill health, if we want to make sure that we can all maximise the opportunities that increased life expectancy can bring. Preventing disease and limiting long-term impairment is at the core of ensuring we all can make the most of the benefits increased longevity can yield." *Baroness Sally Greengross OBE*

"As ILC's analysis shows, it is important we do not become complacent about the risks of infectious disease. Governments and the pharmaceutical industry must work to minimise the risk of infectious diseases; innovate to develop new and better vaccines; and ensure that we are maximising the impact of existing vaccines by encouraging high uptake among children and older people." *Dr John Beard, (previously) World Health Organization*





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