Asia-Europe Foundation (ASEF)
31 Heng Mui Keng Terrace
119595 Singapore

The Case for Investment in Pandemic Preparedness

Dr Fergus Cumming, Chief Economist of the UK Health Security Agency

23 June 2023

When it comes to making decisions about how to allocate resources across time, it is often very natural to put more weight on the present than the future. There might be binding financial constraints *today*, some problems might simply be easier to solve in the future, and spending today can be attractive if it is associated with more certain outcomes. It is therefore natural to discount the future to some extent.

But there are a whole class of problems where the temptation might be to discount the future *too much*: as time moves on, we regret our past decisions. Such *time inconsistent* problems are common in lots of settings, from tax policy to climate change, or even everyday travails such as going back for that extra dessert or not getting up early to go for a run.

In lots of ways, choices about how much to invest in policies, systems and capabilities that protect countries from future pandemics can be thought of as time inconsistent problems. The exact payoffs from this investment will be hard to measure and will likely occur at some uncertain time in the future, or even far future. Meanwhile, following Covid-19, governments across the world have a series of financial pressures that can seem like they are more urgent. All that means the temptation is to underinvest in pandemic preparedness today.

Scholars have studied these kinds of problems extensively in the past, especially in the latter part of the twentieth century in moves that saw many reforms in central banks across the globe. That work showed one of the key ways to lean against time inconsistency is to build institutions that have a degree of independence from central government. But it is a careful balancing act. Too much discretion over objectives or financial independence is inappropriate in a democracy where political leaders can legitimately expect their wishes to be acted upon. But operational independence via an agreed-upon framework can reap benefits if it leans against the temptation of short-termism. In many countries, there is now a relatively high bar to taking away central bank independence and the academic consensus is that this has led to more macroeconomic stability and positive outcomes consistent with longer-term government objectives.

In public health, many of these partially independent institutions already exist in varying degrees all over the world. Public health authorities and centres of disease control are often trusted for their expertise and have powers to improve health outcomes across many dimensions. That said, it is always worth examining institutional design to ensure we can lean against the consequences of time inconsistent preferences. For example, is the funding horizon of the public health authority appropriate to make longer-term investment decisions and are the list of responsibilities and powers clearly delineated across institutional boundaries?

Beyond institutional issues, there are other things public health authorities can do to attract investment in activities that will mitigate the worst effects of the next pandemic. Despite the brushes with global pandemics in the early and mid-2000s, public health was often underfunded in the run-up to the Covid-19 pandemic and that surely led to an excess health and economic burden for many nations. Ultimately, a key objective for public health authorities must be to make it *as easy as possible* for finance ministers to appropriately invest in pandemic preparedness. There are three things public health authorities should carefully consider in order to do this.

Asia-Europe Foundation (ASEF)
31 Heng Mui Keng Terrace
119595 Singapore

First, it is **important to clarify the objectives, trade-offs and interdependencies inside and outside of health crises**. It is difficult to know whether allocations are suboptimal unless we fully understand what optimal looks like; it is difficult to know what went wrong with many Covid-19 responses without a careful examination of what could have been achieved instead. Over the last few years, all governments have had to make difficult trade-offs concerning different outcomes (e.g., health, the economy, education, personal liberty etc) as well as different groups of citizens. Clarifying whether the same trade-offs would be made in the future is important. But outside of crisis, it is also important to be transparent about all the other pressures government spending is currently under. More pandemic preparedness investment today might mean giving up something else. Making the case for a different allocation of resources *has* to start with understanding why that is practical and how it fits into the multidimensional problems governments are trying to solve.

Second, **the case for more investment needs to be specific and analytically grounded**. When considering investment in infrastructure projects, many governments look at the costs, benefits and uncertainties involved. The higher the net benefit and the more accurately it can be pinned down, the easier it is to give it the green light. Pandemic preparedness arguments are more challenging because the payoffs will likely occur in the future and can be harder to quantify, but the onus is on public health authorities to make the case *as convincing as possible*. Why will better surveillance lead to earlier and better decision-making, and what does that mean for a broad range of outcomes? Why was it so important that the world was able to produce, procure and deliver vaccines quicker than many expected in early 2020? How much better would it have been if we could have reduced those timelines even more? How does a particular investment activity lead to those timelines being sped up in the future? To the extent that benefits accrue to different parts of society and have implications for different arms of the state, it is also worth spelling those out to make it clear that pandemic preparedness is not solely an issue for health budgets.

Third, **investment should be targeted at multipurpose capabilities** that deliver better outcomes today as well as building up response capabilities for the realisation of health threats in the future. If executed well, this can nullify many of the identified trade-offs. For example, optimising vaccination infrastructure and trust can reduce health harms associated with the regular cycle of respiratory disease. But by reducing seasonal health pressures, that also reduces the wider and interdependent pressures on health systems, as well as keeping more people in work during the winter months. Moreover, robust vaccination systems (whether that is booking logistics, apps or personnel decisions etc) can be scaled up during a pandemic to good effect. Other flexible and scalable public health investments could include pathogen-agnostic surveillance systems, analytical toolkits and even technology. Generative artificial intelligence shows great promise in solving many every-day and crisis problems, all the way from genomics to turning unstructured data into usable information.

The world has moved beyond the worst of the recent pandemic and there have been many scars left behind. Many governments are keen to turn their attention to healing some of those scars, as well as pivoting towards forgotten challenges of the past or more recent events as they unfold. But now is also the time to learn the lessons from the lack of pandemic preparedness that deepened the tragedy of the Covid-19 pandemic in some contexts. Leaning against short-termism in this space should not be about tying the hands of governments like Odysseus did to his mast, but demonstrating why investment to mitigate future pandemics is so compelling.