

How Big Pharma sold Vaccines to the World

Paula Jardin

1.1 Part-1

Over the last five decades - long before governments used the fear of Covid-19 to accustom their citizens to bio-security surveillance through continuous mass testing of healthy people, test and trace, vaccine mandates and vaccine passports that replace people's rights to participate in society with conditional permissions - the control and elimination of diseases via medication has gradually become the sole and ultimate goal of global public health policy. Clean water, ending malnutrition, improving food production and supply and education have been all but eclipsed in the pursuit of universal vaccination.

Writing on the politics of vaccination in 2017 the international health policy expert William Muraskin warned that *'an all-out war on microbes is being planned right now by eradication proponents who intend to prevail regardless of developing-country governments' or their peoples' choices.'* Like the 'war or terror' it was an open ended concept, ambiguous and useful to justify a range of actions.

That vaccines have become the weapon of global health choice is down to two influential philanthropic foundations which have been working relentlessly towards the hubristic goal of eradicating diseases via universal vaccination. For the past quarter-century the Bill and Melinda Gates Foundation (BMGF) has been front and centre of this widely perceived humanitarianism, inviting humankind to *'reimagine the way we use our immune systems to combat disease'* through *'just-in-time'* vaccines and surveillance. In fact BMGF is but a newcomer to this great vaccine game, joining another influential private American organisation, the Rockefeller Foundation (RF), which set the groundwork for this years ago. Set up by the family of John D Rockefeller, the world's first billionaire who made his money through his company Standard Oil, RF's role in vaccine promotion traces back to its pioneering disease eradication campaigns against hookworm and yellow fever. The foundations for what was to become the war on microbes was laid over the next decades with the RF making most of the running; exerting its influence through the placement of RF trustees across numerous international organisations, always evading the type of public attention that the BMGF has attracted by operating largely under the radar.

At the World Health Organisation (WHO) convened 1978 World Health Assembly in Alma Ata, Kazakhstan, member nations agreed a broad vision for *'Health for All'* as a fundamental human right, which was set out in a clear declaration. This was a manifesto to improve health in the developing world by the year 2000 by raising living standards through clean water, improved sanitation and nutrition – the fundamental contributory elements to good health. In this call for primary health care, immunisation against the major infectious diseases was but one of the tools in the box alongside *'education, food supply and proper nutrition, the adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs'*.

The Alma Ata declaration displeased the Rockefeller Foundation because the vision and strategy ran counter to the disease-centric cure or eradicate model it had pioneered against hookworm, yellow fever and malaria. The RF convened a conference of its own six months later in Bellagio, Italy, to develop a counter-response. According to the US Centers for Disease Control, it was one of their own employees, Dr Rafe Henderson, who first encouraged the WHO to embrace vaccines. In 1977 he was seconded to WHO to run the Expanded Program on Immunization (EPI).

Addressing the World Health Assembly 30 years later, the Danish physician and former WHO director general Dr Halfdan Mahler reminded his audience *'of the transcendental beauty and significance of the definition of health in*

How Big Pharma sold Vaccines to the World

Paula Jardin

WHO's Constitution', health as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'. He lamented donors' speedy loss of interest in and distortion of the very essence of the Alma Ata vision and its primary health care strategy 'under the ominous name of Selective Primary Health Care which broadly reflected the biases of national and international donors and not the needs and demands of developing countries'.

Selective Primary Health Care, the Rockefeller Foundation's riposte to Alma Ata written by its director of health sciences, Dr Kenneth Warren, was a '*band aid*' package of '*scientific*' solutions to paper over infrastructure and systemic problems. It was believed that 'GOBI', the United Nations Children's Emergency Fund (Unicef) acronym for its four essential measures for the maintenance of child health in developing areas – Growth monitoring, Oral rehydration, Breast-feeding and Immunisation could halve the child death rate in developing countries. According to Warren, the GOBI scientific advances were more realistic and cost-effective interim measures.

While WHO director general Mahler was endeavouring to deliver his broader Health For All programme, the Rockefeller Foundation was busy finding a way around it. James P Grant, a Rockefeller Foundation trustee and a member of its executive committee, was nominated as a candidate to be executive director of Unicef. Grant, feted by Bill Gates as a '*visionary leader*', was appointed to this post in 1980 by United Nations Secretary General Kurt Waldheim.

Writing later about the start of the global health strategy, Dr Kenneth Warren focused almost exclusively on vaccination. He explained how in May 1983 Jonas Salk, the inventor of the polio vaccine who campaigned vigorously for mandatory vaccination throughout the rest of his life, calling the universal vaccination of children against disease a '*moral commitment*', and Robert McNamara, the President of the World Bank who had advocated for population reduction claiming that population growth was second only to nuclear war as a global threat, together convinced Unicef that the Expanded Program on Immunization that Rafe Henderson was running for the WHO needed to be accelerated. Warren records how in 1984 the Rockefeller Foundation helped to organise a consortium of agencies, including the World Bank and the United Nations Development Programme, to foster that goal, and how, within six years, 80% immunisation was achieved.

Yet it is striking how infrequently the WHO Health For All reports of that time, the early 1980s, mention immunisation, by contrast consistently noting how disease in developing countries caused by parasites, insects and infections was closely related to economic and social conditions, notably malnutrition or marginal nutrition and poor water. When vaccination is mentioned in these reports it is as 'a' tool rather than as 'the' tool for addressing disease. The insertion of the word '*universal*' before vaccination coincided with the arrival of Grant at Unicef. However innocuous it may have seemed, the inclusion of this single qualifying word has had far-reaching ramifications. Universal vaccination was a policy choice, and the one preferred by the RF and its acolytes at the CDC.

Two years into his tenure, Grant rebranded the RF's Selective Primary Health Care as Unicef's Children's Survival and Development Revolution. Phrases referencing Mao's Cultural Revolution are, astonishingly, scattered throughout. He was soon touting vaccines as cutting-edge and low-cost and the push for universal vaccination began in earnest, aiming for 90% of children in the developing world to be inoculated against diphtheria, tetanus, pertussis (DTP), polio, measles, mumps, rubella and tuberculosis by 1990, never mind whether these children had clean water to drink or adequate food or sanitation.

How Big Pharma sold Vaccines to the World

Paula Jardin

1.2 Part-2

In the 1984 Unicef State of the World's Children report, its director general James Grant talked of how the developing world was lagging 50 years behind the industrialised world in terms of child mortality rates. Explaining how the industrialised world had succeeded in reducing its own child mortality rates, he acknowledged that *'the mainspring of this great leap forward was rising living standards – better food, water, housing, sanitation, education and income'*.

Although the spread of maternal and child health care undoubtedly played an important role, health technology and medical services played only a secondary part, and the report stated that effective vaccines for measles became available only *'after child deaths from measles had been reduced to almost zero by better nutrition'*. Yet despite malnutrition being the spectre that loomed large in the Unicef reports, Grant was quick to explain vaccines could help with that as well: *'All infections are nutritional setbacks. Often the climb back to normal weight and growth takes several weeks. Immunisation against the six main infectious diseases of childhood would therefore be a partial "immunisation" against malnutrition itself.'*

It was not long after the retirement of Dr Halfdan Mahler, WHO's director general from 1973-1988, that Unicef, the Rockefeller Foundation (RF) and other 'partners' launched the Children's Vaccine Initiative (CVI) to encourage developing countries to self-finance their Child Survival Revolution vaccination programmes. This was a significant change of direction. No longer would vaccines be interim aid schemes: they were to be elevated to a strategic priority and meagre health budgets would be redirected to pay for them. The justification made was that *'that the development, introduction, and widespread use of vaccines in industrialised and developing countries have resulted in considerable progress against some of the most devastating infections of humankind.'*

Today, the US Centers for Disease Control (CDC), contrary to the admission in the 1984 Unicef report that vaccines had only a secondary impact on child mortality, claims that the improved socio-economic conditions in industrialised countries only had an indirect impact on disease. It is more than 20 years since the RF and the Bill and Melinda Gates Foundation (BMGF) joined forces, using the World Bank to create the Global Alliance for Vaccines and Immunization (GAVI), now known as GAVI, The Vaccine Alliance. In the mid-1990s, with new leaders at the helm of both Unicef and the WHO, Dr Seth Berkley, the RF's associate director of health sciences, proposed to James Wolfensohn, the Rockefeller Foundation trustee appointed to the Presidency of the World Bank (WB) in 1995, that the WB and the RF stage 'a coup'. *Berkley wanted to replace the CVI, which was failing to live up to the expectations of the vaccine manufacturers: 'We will have an outside body that can bring in industry [which the World Health Organisation cannot legally do], do advocacy and build a truly international alliance'*.

GAVI was officially created *'to save children's lives and protect people's health through the widespread use of safe vaccines, with a particular focus on the needs of developing countries'*. Structured as a public-private partnership, largely funded by BMGF and vaccine manufacturers, GAVI's purpose was reverse the stagnation of the vaccine market, shaping it so more new and underused vaccines could be sold to the developing world. Until 2017, the WHO modelled vaccine impact estimates for GAVI. However as Gavi's questions became more strategy and policy-oriented, with a need *'to better account for uncertainty'* and to be able *'to estimate the vaccine impact more accurately striving for the highest level of scientific rigour'*, GAVI and the Gates Foundation outsourced this modelling work to a consortium led by Professor Neil Ferguson.

How Big Pharma sold Vaccines to the World

Paula Jardin

The unique selling point of vaccines is that, as products targeted at healthy people, virtually every person on the planet becomes a potential customer and, even better, a repeat customer. Vaccines represent opportunities for continuous growth and profit, unrivalled in the pharmaceutical sector even before Covid-19.

In 2011 when Seth Berkley left the RF to become GAVI's CEO to oversee the implementation of its 'Decade of the Vaccine', vaccines accounted for only 3% of all pharmaceutical sales. But they stood apart from all other pharmaceuticals in one significant way: their sales were growing at twice the rate of any other pharmaceutical product, at 10-15% per annum compared with 5-7% for other products. A 2013 survey of industry trends prepared by WHO health economist Miloud Kaddar predicted that the global market for vaccines would become an engine of growth for the industry, increasing in market value to \$100billion by 2025. In a single year the Covid-19 vaccines alone have eclipsed those projections, generating \$150billion revenue for the financial year 2021-2022 according to the World Economic Forum (WEF).

The revenue growth that Kaddar's survey found didn't, however, come from developing countries. It came from persuading all countries, whether industrialised or developing, to target 90% coverage rates for all vaccines on their national immunisation schedules. When he conducted his survey Kaddar found 82% of all sales were in fact to the 15% of the global population living in industrialised countries where living standards are highest and where well-nourished populations have the lowest disease burden. The portion of the world GAVI was meant to be targeting remained a largely untapped market.

GAVI's first task was to increase surveillance of vaccination coverage, which is the number of people in a population who have been inoculated with specific vaccines as recommended in the immunisation schedules. In 2004, for example, in an effort to hit coverage targets, the UK introduced financial incentives to encourage GP practices to increase vaccination rates for three childhood vaccines and seasonal influenza for four at-risk groups.

Additional financial incentives were offered to NHS Hospital Trusts in 2016 to increase influenza vaccine uptake by frontline staff. Unlike the threatened Covid vaccine mandate, flu vaccination is not compulsory but strongly encouraged as evidenced by NHS England's suggested incentives: *'Staff appreciate recognition for their contributions to the health of others and including an incentive or reward aspect to a staff flu vaccination programme can be effective. A small treat can have a big impact. Even something as simple as a sticker to show they have had their jab can be worn as a sign of pride and signal to others that they should have the flu vaccination.'*

It heralded the bribery and coercion to come with the Government's determination to achieve population level Covid vaccine take up.

How Big Pharma sold Vaccines to the World

Paula Jardin

1.3 Part 3

The WHO's Global Vaccine Action Plan (GVAP) was developed to help GAVI (the Global Alliance for Vaccines and Immunisation) achieve its 'decade of vaccines' from 2010, helping '*all individuals and communities enjoy lives free from vaccine-preventable diseases*'. All countries were to make immunisation a strategic priority, requiring more surveillance to '*strengthen national capacity to formulate evidence-based policies*'. There was no aversion to financially incentivising either individuals or healthcare workers to encourage vaccination, despite the potential for conflict of interest.

The primary success metric in the GVAP was that by 2020 there should be at least 90% national vaccination coverage '*with at least 80% vaccination coverage in every administrative unit for all vaccines in the national immunisation programme*' for the target populations. Immunisation Information Systems (IIS), national registries to record the who, what and when of vaccination, were established. The European Centre for Disease Control (ECDC) led a scoping exercise for this in 2016. Systems which would be interoperable with other databases were to be formulated with '*a heavy design emphasis on generating evidence to support decisions that need to be made at the population level*'.

Vaccination coverage is mentioned 81 times in the ECDC report, twice as many times as vaccine safety. The ECDC claims that '*IIS can help mitigate potential rumours and unfounded concerns through the provision of evidence, including on adverse events following immunisation*'. That may be so, but the only safety signal likely to emerge from an IIS is evidence of secondary vaccine failure – that is, breakthrough disease outbreaks amongst those inoculated against a given disease, requiring a booster vaccination campaign.

The IIS do not exist for safety monitoring (the technical term for which is pharmacovigilance) of the vaccines once they are deployed on the population at large. Pharmacovigilance is the remit of the regulators who license them, not of the public health authorities who monitor vaccination coverage. In fact, only seven European countries record adverse events to vaccines in their IIS. The UK is not amongst them. Of the seven that do, only Sweden automatically reports them to the regulator who has the power to withdraw unsafe products from use.

Dr David Sencer is the former director of the US government agency the Centres for Disease Control and Prevention (CDC), who lost his job after America's ill-fated 1976 swine flu vaccination campaign. *He has pointed out that some adverse effects from vaccines become apparent only once the clinical trials conclude and after the vaccine is administered to very large numbers of people.*

Sencer's swine flu program had an active surveillance system for adverse events which he later called a trojan horse as the scale of death and injury led to the vaccination campaign being terminated after three months. *Having indemnified the manufacturers because their insurers balked at covering them*, the US government paid \$135m for swine flu vaccines and an additional \$90m in compensation for death or injury – almost as much in compensation over the swine flu vaccine programme as it did rolling it out.

The size of the US government's 1976 compensation bill perhaps explains why no pharmaceutical regulator in the world has a system that actively monitors for post authorisation adverse events. Instead all regulators rely on passive surveillance through voluntary reports to systems like the Yellow Card system operated by the Medicines and Health Care Products Regulatory Authority (MHRA) in the UK.

How Big Pharma sold Vaccines to the World

Paula Jardin

A vaccine is deemed safe if it passes Phase 1 clinical trials without any '*unscheduled*' animal deaths or untimely deaths of human subjects and effective if it passes Phase 2 clinical trials. Products such as the ill-fated Pandemrix flu vaccine – hit by adverse effects in 2009 – may on occasion be withdrawn after licensing, *but as a rule, regulators make no active effort to protect consumers at large that might necessitate a product being withdrawn once it is in use.*

To facilitate GAVI's efforts to monitor vaccination coverage rates reliably, the GVAP asks for each individual to be assigned a unique identification number so that the respective health authority can ensure everyone gets every vaccine in 'time-monitored' adherence with the vaccine schedules. In 2013, the Bill and Melinda Gates Foundation (BMGF) funded a fingerprint identification system to track vaccinated children in Africa. GAVI, the Rockefeller Foundation and Microsoft subsequently formed the ID2020 alliance in 2016 to promote the global need for secure digital identity. '*We are currently in the middle of a global identity crisis: Tens of millions of children – especially those living in most remote, impoverished communities – have no formal record of their existence,*' said Dr Seth Berkley, associate director of health sciences at the Rockefeller Foundation, and one of the instigators of GAVI. '*That represents an enormous impediment to GAVI's mission of ensuring that every child worldwide receives the essential vaccines they need to survive and thrive.*' He said the pacesetters of GAVI's initiative called INFUSE (Uptake, Scale and Equity in Immunisation) '*are on the cutting edge of technologies that might help us overcome that challenge.*'

Covid-19 has presented another opportunity to fulfil GAVI's vaccination monitoring mission. [Dr Rebecca Weintraub](#), a board member of Simprints, one of the companies working with it to develop biometric identification solutions for immunisation registries, said: '*We have a narrow opportunity to set the stage for such fair and sustainable infrastructure across the globe. If done well, we can ensure the promise of the Covid-19 vaccine portfolio leads to future widespread vaccination – and protection – for global populations.*'

However, biometric identification for developing immunisation registries is beginning to morph into something else. The Ada Lovelace Institute, which was set up by partners including the Wellcome Trust in 2018 to '*ensure that data and AI work for people and society*', calls vaccine passports and Covid status apps systems for verifiably sharing private health data relevant to Covid-19 which could be used to stream society and impose differential lockdown restrictions. '*This might mean limiting individual access to work, insurance, hospitality and leisure, and other parts of life, based on an individual's health or risk of Covid-19 infection or transmission.*' In other words, universal vaccination means universal control.

Covid-19 may have brought these passports to public attention, but the idea is not new. In December 2017, the European Commission published a Roadmap on Vaccination. The first action on the roadmap is to '*examine the feasibility of developing a common vaccination card/passport for EU citizens (that takes into account potentially different national vaccination schedules and) that is compatible with electronic immunisation information systems and recognised for use across borders, without duplicating work at national level.*'

In 2018, the European Health Parliament, a lobby organisation that develops health policy recommendations to '*rethink European health care*' and whose sponsors include Johnson & Johnson and Pfizer, recommended that electronic vaccination passports be established in order to '*ensure people know and act in their best interests on vaccination*'.

How Big Pharma sold Vaccines to the World

Paula Jardin

The very day the MHRA authorised the use of the Pfizer-BioNTech vaccine, the WHO put out a call for experts to develop a so-called Smart Vaccine Certificate programme. Pharmaceutical revenue growth has been stimulated not only by measures to increase inoculation coverage, but by raising the number of vaccines put on national immunisation schedules.

The ‘*child survival revolution*’ promoted by the United Nations agency UNICEF began in 1982 with six vaccines. At the time of the first GAVI board meeting in 1999, there were 11 routinely recommended vaccines on the US national immunisation schedule. GAVI immediately identified a vaccine gap that the developing world needed to close, and its ambition is for immunisation schedules around the world to mirror that of the US. *The goalposts keep moving. When it was updated again in 2013, the US immunisation schedule comprised a total of 52 injections of 17 different vaccines over the course of a person’s lifetime.* Gone are the days when the promise made to parents was that with a single injection their children could avoid infections and be protected for life. The number of boosters continues to increase and now includes a recommendation for adults to have an additional measles, mumps and rubella (MMR) vaccine.

A footnote to the MMR recommendation says: ‘Documentation of (healthcare) provider-diagnosed disease is not considered acceptable evidence of immunity for measles, mumps or rubella.’

The very idea that someone might have acquired lifelong immunity after recovering from an infectious disease is now anathema, unless proven by a laboratory test. The current UK immunisation schedule is marginally more conservative, both in terms of the total number of vaccines recommended and the number of doses. The most recently updated version, as of November 23, 2021, appeared on the website of the Oxford Vaccine Knowledge Project. It recommends only three vaccines for adults – flu, pneumococcal and shingles. The three are recommended by Public Health England only for over-65s, or 70 in the case of the shingles vaccine. Despite the controversial mandate for NHS staff to have the Covid-19 vaccine – now withdrawn – the jab is not listed on the schedule. The Oxford Vaccine Knowledge Project’s medical information is reviewed by Professor Andrew Pollard, chair of the UK’s Joint Committee on Vaccination and Immunisation, and a member of the WHO’s Scientific Advisory Group of Experts Committee.

How Big Pharma sold Vaccines to the World

Paula Jardin

1.4 Part-4

Adding vaccines to countries' immunisation schedules is meant to be the function of expert advisory groups. It can also be influenced by lobbying, sponsored by industry, to create the perception of a public demand for increased access to certain vaccines. Indeed, many of governments' senior medical and scientific advisers have close links with, or interests in, pharmaceutical companies and the crossovers are multiple. Take a closer look for instance at the Supporting Active Aging Through Immunisation (SAATI) partnership. It was founded in 2011, as the so-called Decade of the Vaccine began, at the instigation of the Confederation of Meningitis Organisations (CoMo).

In 2013, SAATI entered into a collaboration agreement via a memorandum of understanding with Vaccines Europe. This organisation was previously known as European Vaccine Manufacturers, the vaccines specialist group within the European Federation of Pharmaceutical Industries and Association. A 2014 SAATI report calling for more adult immunisation was prepared by Hill and Knowlton, the international PR agency and funded by Pfizer.

Professor Dr Javier Garau, chair of SAATI, said: *'As we get older, the immune system weakens, increasing our risk of contracting infectious diseases. Furthermore, acquired immunity to certain infections (tetanus, whooping cough, diphtheria) declines with age; due to this, vaccination and revaccination are a particularly relevant prevention strategy for adults. We are determined to engage with all relevant stakeholders to make life-course immunisation the norm as part of healthy ageing, public health or prevention strategies.'* The acquired immunity Garau speaks of comes from vaccines and the decline in protection over time is called secondary vaccine failure. Vaccines do not confer lifelong immunity. As the protection conferred fades, more vaccination is required.

CoMo was created in 1994 and receives funding by Pfizer, Sanofi and GSK. One American charity affiliated to it, the Emily's Dash Foundation, successfully lobbied the US Centres for Disease Control and Prevention (CDC) to lower the age at which children could be given a meningitis vaccine. CoMo receives additional financial support from the Coalition for Life-Course Immunisation (CLCI) whose individual sponsors include MSD, Sanofi-Pasteur and Vaccines-Europe and whose members are Moderna, Sanofi-Pasteur, MSD, Novavax, Pfizer, Seqirus, Takeda and VBI Vaccines.

Seqirus is under contract with the Biomedical Advanced Research and Development Authority, a US government agency, to develop next-generation self-amplifying mRNA vaccines for influenza. It is also developing new Covid-19 vaccines using technology that purports to have fewer side-effects than first generation mRNA gene therapy vaccines.-

The World Bank has now *'financialised'* epidemics and pandemics through bond issues, making them a vehicle for profit that entrenches their permanency. Vaccine bonds were introduced in 2011 to finance GAVI. In 2017, before we'd even heard of Covid-19, a pandemic bond and a finance facility had been introduced. In May 2021, 750 million dollars in Covid-19 vaccine bonds underwritten by the Rockefeller-linked JP Morgan Bank were released.

'No one in the world is safe from the threat of Covid-19 until everyone is safe,' said Seth Berkley, chief executive of the GAVI Alliance. *'And this transaction will help us supply lower-income countries with the vaccine doses they need to roll back the pandemic in its most acute phase. Proceeds from the bonds will also strengthen GAVI's continuing support for its core vaccine programmes to ensure that routine immunisation does not fall behind and hard-earned gains against vaccine-preventable disease are not lost.'*

How Big Pharma sold Vaccines to the World

Paula Jardin

All but the very poorest countries are expected to take on additional debt burden to purchase and distribute the vaccines. By June 2021, reluctant to do so, developing countries had only availed themselves of 3.9 billion dollars of the 100 billion dollars the World Bank had set aside to finance Covid vaccines. It is hard to see Covid-19 vaccines as anything other than a cash cow for the industry. In February 2021, two months after the UK's watchdog Medicines and Healthcare products Regulatory Agency (MHRA) issued a temporary use authorisation for Pfizer's vaccine, the firm's chief financial officer, *Frank D'Amelio, told investors the profit margin for the vaccine was in the upper 20%. That was based on what he called 'pandemic pricing' – charging 19.50 dollars per dose compared with a normal price of up to 175 dollars. He added that the percentage could go higher depending on economies of scale.*

Pfizer chief executive Albert Bourla said '*a durable Covid-19 vaccine revenue stream like is happening in flu*' was likely for the firm, because booster shots would be needed and emerging variant strains would have to be countered. The Covid vaccines, smashing conventional wisdom, were cleared for use in what were meant to be exceptional circumstances. Bourla said: '*I believe the Covid thing has created a new normal.*'

Even at discounted '*pandemic pricing*' levels, the financial bonanza for the firm was astronomical. In November 2021, *Pfizer executives told institutional investors the 39 billion dollars in revenues from its Covid-19 vaccine accounted for 44% of its record 88 billion dollars total revenue for the year.* In the euphoria following the granting of emergency use authorisations for the Covid vaccines and the huge profits, many new vaccines are being planned and industry expectations have been raised.

As I mentioned in Part 1 of this investigation, the international health policy expert William Muraskin warned in 2017 that '*an all-out war on microbes is being planned right now by eradication proponents who intend to prevail regardless of developing-country governments' or their peoples' choices.*' Like the 'war on terror', it was an open-ended concept, ambiguous and useful to justify a range of actions. Muraskin argues that vaccination has been prioritised at the expense of, and to the detriment of, the already limited resources of the health systems of developing countries.

Covid-19 has now hijacked the resources of the industrialised world's health systems and undermined their economies in an unprecedented way. Israel has just authorised its fourth booster in a year, even as the toll of adverse events and deaths mounts in their wake. It is now evident that the revenue stream is for the time being more '*durable*' than any protection derived from the vaccines. The public health agenda was long ago seized by private interests. The campaign to eradicate Covid-19 and other diseases through vaccination reflects the biases of GAVI, the Vaccine Alliance partners, and more especially those of its founders. The rationale may be questionable, but the approach is certainly lucrative. Eradication appears a fools' game, but one in which we will all be forced to participate if vaccination passports become a permanent mechanism for accessing our everyday lives. As of 2013, a pipeline of 120 new vaccines was in development and only half were directed at tropical diseases afflicting developing countries. There are more now.

*How many of these are destined to be added to national immunisation schedules and indiscriminately used?
How many might become mandatory?*

Society needs a wider debate on the merits of the war on microbes before it sweeps us all away.