

HUMAN
SOLVING THE GLOBAL
WORKFORCE CRISIS
IN HEALTHCARE

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Preface: Cognitive dissonance

'The greatest danger for most of us is not that our aim is too high and we miss it, but that it is too low and we reach it.'

Michelangelo 1475–1564

The truism that 'there is no healthcare without the workforce' is universally acknowledged but poorly acted upon. We are hurtling towards a global workforce crisis in healthcare because of a growing and ageing population which places greater needs and demands on health at just the time when the ratio of employed workers to older people and other dependents has never been more challenging, while the millennial generation is far less inhibited about changing jobs and careers. Put simply, in healthcare, we face a future where there is too much work with too few workers.

Yet across the globe there are politicians and health employers who manage to exhibit amazing levels of cognitive dissonance; they seem able to hold contradictory ideas and values simultaneously. They proclaim their love for healthcare staff yet persistently underappreciate them; they celebrate the extra jobs created but fail to plan for a healthy supply of staff to fill them; and they extol the benefits of technology without planning for enormous digital disruption. In short, they say one thing and do another.

We have reviewed hundreds of papers and articles worldwide on the healthcare workforce for this book. With notable exceptions, they concentrate on immediate and imminent staffing problems and fall short of serious, joined-up strategic solutions. Many are written from a laudable but narrow professional view. There is little real coordination between the clinical practitioners, educationalists, researchers, scientists, technologists, demographers, economists, workforce specialists, and health executives, let alone patients and the public. But as humans we can decide to solve this problem if we want to, and work more collaboratively and imaginatively. We have to raise our ambitions.

The cover of the book is immediately recognizable. *The Creation of Adam* is a fresco painted by Michelangelo between 1508 and 1512 in the Sistine Chapel in Rome. It was inspired by the Book of Genesis, and the picture of the outstretched hands of God and Adam has become the iconic image of humanity. The book cover replaces the hand of Adam with that of a robot, forged through technology. I chose the image because I firmly believe that humankind is capable of solving the global workforce crisis with the help of the technology it has created. But technology should always be subordinated to human needs, and forms but one part of the solution. The book is called 'Human' because the essence of healthcare is compassion, empathy, and humility, offered with dignity and respect. These enduring human attributes will not be replaced by machines because, at the greatest times of illness and vulnerability, the kind heart and warm touch of a human can lift the spirit.

This book is written with a timeframe of 10 years or so in mind, to 2030. In 2017 the Fourth Global Forum on Human Resources for Health, convened in the Irish

capital by the World Health Organization and others, described in stark terms the crisis facing us. The Dublin Declaration on Human Resources for Health said we will need around 40 million more healthcare workers by 2030, but we are in danger of being 18 million short¹—more than one in five of the 80 million² we will need. It called for countries across the globe to increase health financing and the recruitment, development, training, and retention of healthcare workers.

The chapters that follow do not—indeed cannot—offer quick fixes, but show how this gap could be closed through orchestrated policy and action across a number of fronts. My ideas are based on what I have seen working with both humans and technology during my global travels. If all these approaches were pursued, the total number of healthcare staff needed would be considerably fewer than the current target—but still many more than we have today.

I am not a futurologist, digital wizard, or workforce specialist but have, over the past 10 years, worked around the world in 77 countries on about 330 occasions helping to improve healthcare. Over my 30-year career dedicated to health services I have had the privilege of leading organizations at local, regional, national, and global levels, payer and provider, public and private sectors, and passionately believe in the extraordinary abilities of staff. For example, during my time at University Hospital Birmingham (UHB), one of the largest employers in the NHS, 86% of staff said they were 'proud to work for UHB'. I am now Global Chairman and Senior Partner for Healthcare, Government, and Infrastructure at KPMG International. KPMG can trace its roots back more than 150 years, and is now a worldwide network of professional services firms spanning 157 countries. It is consistently ranked in or around the top 10 employers worldwide. I hope my experience and observations help practitioners and policymakers alike solve the workforce challenge that we face together over the coming decade.

The chapters that cover various countries across the continents are designed to give a flavour of their workforce issues rather than provide a compilation of all the details. I have tried to juxtapose the chapters on themes, such as technology or the role of government, with countries that highlight some of the issues raised.

I want to acknowledge that this book does not talk sufficiently about all health professions. It is axiomatic that allied health professionals, clinical scientists and a whole range of other dedicated staff make healthcare what it is today but, unfortunately, we just couldn't find enough consistent data across countries with which to work. Sadly, this is also true for social care and human services, both vital partners in health and well-being.

I have tried to be even-handed with the facts, but these inevitably change as the world turns and health systems move on. That said, unfortunately, developments in healthcare workforce are often glacial in nature. This short book is not designed to be an academic compendium and, as we all have busy lives, each chapter can be read in the time it takes to drink a cup of coffee.

Written in a personal capacity on planes, trains, and automobiles, this book could only have been completed with the research, drafting, and editing skills of Dr Charlotte Refsum, Dr Edward Fitzgerald, Jonty Roland, and Richard Vize. They have been magnificent and it has been great fun working as a team.

I would also like to thank the clients, colleagues, and countries I have worked with and in. I am privileged to work globally and it has given me a deep appreciation of

how diversity and cultural difference can spur creativity, innovation, and goodwill to new heights. My gratitude is also extended to the 16-strong International Review Panel who are acknowledged along with others at the end of the book.

As I said in my first book, *In Search of the Perfect Health System*, we all have something to teach and something to learn. The Roman statesman and philosopher Seneca once said, 'travel and change of place impart new vigour to the mind'. I certainly believe this to be true, and hope you enjoy the book.

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Chapter 1

Introduction: A workforce solution is within our grasp

Over the past decade while working all over the world, I have come to the regrettable conclusion that no country—rich or poor—manages its health workforce and workforce needs particularly well. Many countries are awash with analysis which painstakingly outlines looming shortages and crises, but there are few examples of excellent practice which improves the situation for the long term. Countries and organizations often try to spend their way out of problems with short-term fixes, causing more problems for others and, ultimately, themselves.

This is a big global problem now and it will worsen over the next decade. Since the beginning of this century the health and social care workforce has grown rapidly, but it is still not enough. Projections indicate that by 2030 demand for health workers will rise to 80 million,¹ but the World Health Organization estimates there will be a worldwide shortage of around 18 million, more than one in five of the people we will need.²

I have three motivations for writing this book. First, as I have been travelling I have noticed how my conversations with health leaders have changed. Immediately after the global financial crisis of 2008 most health systems were obviously obsessed with money (usually the lack of it). While this has not disappeared, it is increasingly overshadowed by the realization that we simply do not have enough staff to care for patients. Second, I do not believe we have to sleepwalk into this problem. With concerted, coherent effort we can supply sufficient healthcare staff, reimagine service delivery, harness technology, extend healthy life expectancy, and increase the economic well-being of nations by 2030. Health is wealth. Finally, I believe that by orchestrating 10 large-scale changes—affecting everything from how we make our staff feel loved, to how we manage the interaction of humans and robots—we can increase the capacity to care by roughly 20%—thus meeting the anticipated shortfall in staff. Box 1.1 illustrates the themes that are discussed in greater detail in the chapters that follow, while the country chapters highlight what their health systems can teach others, along with the challenges they face.

My central argument, therefore, is that we are facing a workforce crisis which is a 'wicked problem' needing a lot more than the usual linear management solutions. The complex adaptive challenge requires us to think, work, and collaborate in different ways. No country or health system is yet consistently addressing the 10 priorities for change I have identified. We need to reframe the productivity debate, reimagine clinical services, and change national investment strategies, as well as harnessing the disruptive power of technology and artificial intelligence (AI).

Staff shortages will not be spread evenly over health systems but they will be experienced everywhere. Growth in the demand for health workers will be highest

Box 1.1 Ten large-scale changes to tackle the global health workforce crisis

- 1** Reframe and reposition the debate about workforce planning to one about productivity, health, and national wealth creation.
- 2** Encourage governments to become more entrepreneurial, stimulating health worker supply through a host of measures ranging from the relaxation of training limits to increased labour participation rates for healthcare.
- 3** Encourage the rapid and large-scale adoption of new models of care that already exist in different parts of the world so that enhanced well-being, prevention, promotion, care, and treatment can increase productivity and capacity to care.
- 4** Provide the human and technological support to enable patients to be active partners in their care, taking greater responsibility for their own well-being and the management of long-term conditions. This should be a given in the twenty-first century.
- 5** Provide greater recognition, encouragement, and support for communities, volunteers, and families, who already provide most of the care in society.
- 6** Support health professionals to practise at the upper limits of their clinical licence, encouraged by regulators.
- 7** Create a new cadre of peripatetic care assistants and workers who seamlessly straddle health and social care to deliver services in communities, hospitals, and homes.
- 8** Stimulate the disruptive digital possibilities offered by AI, cognitive assistance, robotics, and blockchain to increase time to care and productivity; healthcare has little to fear and much to gain from the rise of the intelligent machine.
- 9** Instead of passively waiting to be shaped by the impact of digital technology and machines on the workforce, organizations need to become agile, learning systems which educate, re-educate, and support workers, to gain productive and competitive advantage and maximize staff well-being.
- 10** The healthcare industry needs to overhaul its rudimentary approaches to the leadership, development, and coaching of individuals and teams, embracing proven techniques which raise motivation and performance.

among upper-middle-income countries, driven by growing economies, populations, and ageing. These shortages will fuel global competition for skilled health workers at just the time that nationalism and nation-first politics are gaining popular traction. Middle-income countries will face shortages as demand exceeds supply, and low-income countries will face low growth in both demand and supply and will not be able to meet the United Nations' Sustainable Development Goals for health and well-being, which set ambitious targets for disease reduction and health equity including universal health coverage by 2030. Every country signed up to the Development Goals, but they now need to spell out how they will play their part in delivering universal health coverage, ensuring they make their fair contribution to the pool of global health talent. These are life and death issues.

Universal health coverage is a just cause, given that the average life expectancy of a citizen born in Sierra Leone is just 50 years compared with the 84 years lived in Japan³—a terrible waste of life and human potential. Of course, this is not just a problem for developing countries. A man born in upmarket Kensington, London, can expect to live for 83 years while a man born in Glasgow, Scotland, would be expected to live just 73 years. In America, Oglala Lakota County, South Dakota—which includes the Pine Ridge Native American reservation—has the lowest life expectancy at 66 years, while a cluster of counties in Colorado enjoy 86 years of life.⁴

The greatest gift a country can give its people

Universal healthcare is the greatest gift any country can give its people, but we are currently on a trajectory of failure condoned by those who passively accept that demography is destiny. All too often I have found some health professionals and academics have been more eager to analyse the problem than mobilize for action.

Unfortunately, many health systems fail to put their best people on the most important problem—the future supply, management, and motivation of healthcare staff. In some respects, it is a Cinderella service. Many health organizations and systems are still stuck in the mindset of thinking about personnel issues. Instead, we need a fundamental reset of approach to ensure a relentless focus on human resources. Hospital and health system governing boards should—at the very least—give 'people' the same priority as 'finance'.

No one country has all the solutions, but I am convinced we can generate the equivalent of 20% extra capacity to care over the next decade or so if politicians, policymakers, practitioners, patients, and the public change their ways. Of course, it is difficult, but it is an urgent priority if we are to provide adequate healthcare for all 8.5 billion humans that will live on the planet by 2030. This is an honourable goal which is attainable if we leverage the best ideas around the world, orchestrate effort nationally, and learn from other sectors of the economy that have changed more rapidly to harness the technological power of the fourth industrial revolution.

Fractured globalization

All over the world people ignore the blessings associated with globalization while being quick to point to its failures. Over the past 25 years, globalization, liberal democracy, and free-market economics have faced a crisis of identity in the West and parts of the East. People are troubled and find it hard to know what their country stands for now. Growing numbers of middle-class citizens feel they have neither adequate security nor liberty. The poor have always felt this. The young and the old feel alienated in different ways. Many feel their country is moving away from them—caring less for them as their standard of life stalls or falls. When people feel their opportunities are diminished they look for quick and simple answers, which is when populism takes hold.

Decent healthcare can help heal these fractures. Health is cited as a top five political issue for most countries. Governments are a little bit similar to Maslow's 'hierarchy of needs'. As a first base, functioning societies and democracies need to provide security for their populations—military security, economic security, social security, and health security. Only when these are in place do liberty and the legitimacy of democratic institutions flourish.

Health has an enormous role to play in building hope and social cohesion, and a well-trained, technologically productive health workforce is good for families and society and their economies. The enduring values of healthcare—compassion, fairness, and equity—can bring people together. But there is a problem.

Currently standing at just over \$9 trillion, the global healthcare sector is the second largest industry in the world, consuming an average of around 10% of a country's gross domestic product (GDP). Yet the capability and capacity for the industry to replenish itself, innovate, and become more productive is frustratingly slow and amateur. Coupled with the workforce shortages, this slothfulness will cause unnecessary deaths, impede the healthy extension of life, and slow the growth of national wealth and harmonious societies. It doesn't have to be this way.

An enormous challenge

The health sector globally is performing poorly on predicting and delivering numbers of properly trained health workers. The World Health Organization and Global Health Workforce Alliance looked at workforce data for 183 countries covering supply, skills, access to care, and the dignity of care and concluded that every single one of them had staff shortages.⁵

The workforce is ageing and not being sufficiently replaced. Availability and accessibility are highly uneven in their spread (there are substantial issues of geographical equity for health professionals within countries, let alone between them). Health worker motivation is problematic in many countries and performance assessment and management of individuals is rudimentary and given insufficient priority. Countries' capacity to estimate future human resource needs and design longer term policies is highly variable. Quality information and reliable data is problematic. There is a pressing need to rethink how staff are trained, deployed, and rewarded.

Lying behind these difficulties are hard numbers and human lives. The *British Medical Journal* reports that China is short of at least 200,000 paediatricians, 161,000 general practitioners, and 40,000 psychiatrists.⁶ A high-ranking health official in Beijing told me that the relaxation of the ‘one child’ policy (to maintain economic growth and support an ageing population) would require an extra 180,000 obstetricians by 2022. It has been estimated that India requires an extra 1.5 million doctors and 2.4 million nurses just to match the global average, while the physicians that do exist live in the cities, which only account for a third of India’s mainly rural population.⁷ While working in India recently, hospital officials confided to me that the government’s desire to double the amount of public health expenditure to 2.5% of GDP might fail because the human capital simply does not exist, so the extra money would push up wages rather than deliver sustainable jobs growth.

In Japan the number of nurses tripled from 550,000 in 2000 to 1.7 million in 2013 yet incredibly, according to the *Japan Times*, the country is now seeking to add an extra 250,000 nurses from 2017. According to the Ministry of Welfare, Japan will also need 2.5 million care workers by 2025 but estimates it will fall short by 377,000 because its population is ageing and declining as the fertility rate decreases. Germany expects to be 300,000 nurses short by 2030.⁸

In the United States, according to the Bureau of Labor Statistics, 1.2 million vacancies will emerge for registered nurses between 2014 and 2022.⁹ This is being driven by the ageing of the Baby Boomer generation, with the percentage of people aged over 65 forecast to rise by 75% to 69 million, meaning one in five Americans will be a senior citizen.¹⁰ In a double whammy, around one million registered nurses are older than 50, suggesting that nearly one-third of the current workforce will retire in the next decade.¹¹ To add insult to injury, a recent survey of chief nursing officers revealed that 61% thought nurse shortages were harming nurse morale and more than a third said it was having a considerable impact on patient care.¹²

For doctors, a report by the Association of American Medical Colleges reveals that the physician shortage is getting worse as the population grows and ages. By 2030 the shortfall is expected to total anywhere between 41,000 and 105,000¹³ (a perfect example of unreliable data) depending on numerous factors including immigration policies. Yet it would be foolish to write America off. During the Obama years, in a push to become the final Organisation for Economic Co-operation and Development (OECD) member to provide universal healthcare, his reforms contributed to total growth in healthcare staff of more than 1.5 million staff. That is phenomenal, adding roughly the equivalent of the entire workforce of the United Kingdom’s National Health Service (NHS)—itself the fifth largest employer in the world¹⁴—in just five years. If one considers that only 40% of the world’s countries currently have universal healthcare, it is not difficult to imagine the global ‘war for talent’ that has been ignited by the Sustainable Development Goals, which have resulted in countries across the globe committing to universal health coverage by 2030.

In the United Kingdom, Brexit could have profound consequences for the health workforce and patient care. The near total collapse in European Union (EU) nurses registering to work in the United Kingdom (worsened by the introduction of a tougher language test for migrant nurses) has aggravated an already chronic problem. While the number of NHS clinicians has risen by 26,000 since 2012, this has been outstripped by the creation of 62,000 additional posts, including

many established in the wake of the Mid Staffordshire hospital crisis, where insufficient nursing staff was associated with a higher than expected number of patient deaths.¹⁵ In June 2018 there were almost 42,000 unfilled nursing posts in the NHS in addition to 62,000 staff, or 5.6% of all NHS workers, classified as EU nationals. Overall, 12% of NHS staff say their nationality is not British.¹⁶ So even where countries and health systems can afford to create extra clinical posts, the staff increasingly do not exist.

While my travels have taken me to many interesting places, there are more which I have yet to explore fully. For example, the Middle East and the Gulf Cooperation Council (GCC), representing six countries including Saudi Arabia and the United Arab Emirates (UAE), all have particular workforce challenges alongside ambitious strategies for healthcare sustainability. I have visited Saudi Arabia, Qatar, and the UAE and marvelled at their ability to establish impressive healthcare infrastructure. But despite good salaries and low taxation rates the workforce challenges are a persistent problem, including the reliance on staff from abroad.

In Saudi Arabia and the UAE, the proportions of expatriate healthcare workers are 78% and 85%, respectively. The GCC has 5.5 nurses per 1,000 population, compared with the United States at 11.3 and Germany at 13.3. Only 3% of the nurses in the UAE are Emirati.¹⁷ Competition for skilled healthcare workers among the GCC is fierce and bound to increase. So even with massive financial resources, countries cannot entirely buy their way out of workforce shortages.

The global movement of clinical skills is insatiable, and as Figure 1.1 shows, medical migration in full flow. More countries are opening doors to foreign-trained physicians, with Israel topping the league with 58% of all its doctors trained abroad. This is followed by Australia at 30%, the United Kingdom at 28%, United States at 25%, and Canada at 23%.¹⁸

Of course, it is not just doctors who move around the world. Chris Tufton, the health minister of Jamaica, explained to me that the loss of nursing personnel across the Caribbean is creating a crisis in the delivery of health services in vulnerable countries such as his. He cites a World Bank report of 2009 which revealed that, 15 years after graduation, about half the nurses from English-speaking Caribbean countries were working abroad. He estimated that the regional shortage of nurses was expected to triple to over 10,000 by 2030, just as many countries across the Caribbean are launching national health insurance and universal healthcare schemes. More dramatically, in Africa, 25% of the world's disease burden confronts just 4% of the healthcare workforce.

How did we get into this mess?

Some countries can afford more healthcare workers and can find them, some can afford more workers but cannot find them, some produce more workers than they can afford, and some can neither afford nor find health workers. Some countries believe in free market forces to shape labour supply while others take a more state regulated and planned approach to future workforce needs. Most health systems can point to small-scale, local success but many countries can see that whatever efforts they make are overwhelmed by the magnitude of the demographic, labour, and service delivery challenge. It's all been too little, too late.

72,314 doctors from EU countries applied to work elsewhere in the bloc between 1997 and 2016*. Here are the countries they sought to leave and those they wanted to join.

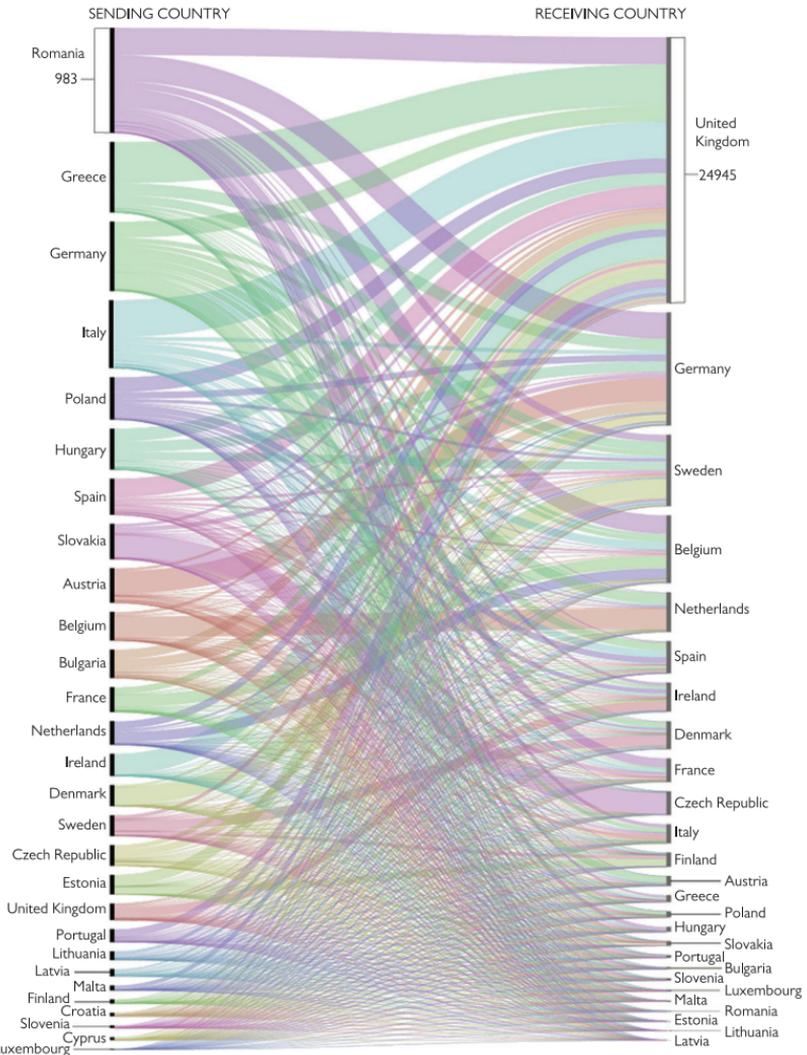


Fig. 1.1 Where do they come from, where do they go?

Reproduced with permission from Hervey, G/POLITICO. The EU exodus: When doctors and nurses follow the money. POLITICO. 9/27/17. Copyright © 2017 POLITICO. Available at <https://www.politico.eu/article/doctors-nurses-migration-health-care-crisis-workers-follow-the-money-european-commission-data/>

According to Deloitte, doctors and nurses are more likely to move between countries than people in any other highly regulated profession, driven by better pay and opportunities.¹⁹ The pattern of migration it identifies in Europe has wider resonance. Within the continent, professionals tend to move from east to west and south to north—in other words, towards the better resourced and better paying health systems. So poorer countries are training staff for their wealthier neighbours. It is striking that the countries with the highest proportion of foreign-trained nurses are Switzerland (19%), the United Kingdom (15%), and Norway (9%).²⁰

But the drivers of migration are more complex than just pay and resources. They include historical, political, and trade relationships, workforce policies, supply and demand, demographic trends such as the number of women in the workforce, and migrant licensing and registration rules, much of which may have nothing to do with the needs of the local healthcare system.²¹

Policy changes can drive sharp shifts in immigration. In the United Kingdom, for example, the number of migrant doctors and nurses rose rapidly in the early 2000s, before dropping sharply from 2006 to 2008 as the government ended its international recruitment drive.²²

The World Health Organization (WHO)'s study of healthcare migration patterns in the aftermath of the global financial crisis highlights the complexity of supply and demand. India was the top country of origin for doctors in Australia, the United Kingdom, and the United States. South Africa has been a major supplier to Australia, the United Kingdom, and Canada, while the United States was the largest origin country for Canada.²³

The Philippines was the dominant country of origin for nurses, being the top source for Canada, the United Kingdom, and the United States. In Australia, the top three sources for nurses were New Zealand, the United Kingdom/Ireland, and the Philippines. The United States attracts substantial numbers from Mexico and Haiti, and the United Kingdom still attracts considerable numbers from former colonies.

Pay differentials can be massive. A Filipino nurse might earn 20 times more in the United States than at home. Remittances—money sent home to the family—are an example of the conflicting impact of migration. Huge numbers of staff sending money back is good for the economy but makes it difficult for the Philippines' healthcare system to keep good staff.

Professional regulation can be a significant barrier to migration, with wide variation in the rules governing the registration of nurses, midwives, and doctors. Registration systems are often poorly adapted to registering migrants, and the reason for arriving in a country—such as joining one's family or claiming political asylum—can be another barrier. Perceptions matter too. I have come across plenty of examples of doctors quitting the United Kingdom for Australia because they expect the work to be less pressurized and bureaucratic.

The impact on developing countries

A major study by Nair and Webster (2012) into the impact of health professionals' migration on developing countries identified three distinct flows—one between

countries and two within them. Internationally, staff tend to migrate from south to north, while within developing countries they tend to move from rural to urban areas and from public sector to private or non-governmental organizations (NGOs).²⁴

Nair and Webster found significant shifts from public to private in countries such as India, Thailand, and China. The growth in medical tourism is leading to an upsurge of private and multinational hospitals which often hire the best specialists, to the detriment of the public healthcare system. NGOs can exacerbate problems by hiring the best staff on good pay.

Supply and demand can have some unexpected effects. In the Philippines, doctors have been retraining as nurses because of the higher international demand, while in China, doctors struggling to compete with a growing market for overseas physicians are moving into research and jobs with pharmaceutical companies.²⁵

The Migration Policy Institute examined the impact of healthcare workers' migration on Malawi.²⁶ The first medical school opened in 1991. A decade later more than half of the 500 doctors born and trained in Malawi were working abroad, as were around one in six of the 2,200 home-trained nurses. Popular destinations included the United States, South Africa, and the former colonial power of the United Kingdom.²⁷

Emigration led to chronic staff shortages. By 2004 there were 250 doctors for a population of 23 million, and half the doctors worked in the cities even though the population was overwhelmingly rural. The Ministry of Health described the health sector as 'critical, dangerously close to collapse . . . facing a major, persistent and deepening crisis with respect to human resources'.

It launched a six-year Emergency Human Resources Programme to raise staffing levels. The \$100m investment over five years attracted major donor funding, notably from the United Kingdom's Department for International Development. The major groups of staff were given pay increases of around 50%, the numbers being trained were increased and volunteers were brought in to plug short-term gaps. Incentives encouraged staff to work in rural areas, the availability of drugs and medical supplies was improved, and poor management was tackled.

By the end of the programme the number of healthcare workers per 100,000 population had increased by about two-thirds and there has been a sharp decline in migration. But the workforce is still significantly smaller than the African average.

It is important to bear in mind that, as the report Triple Impact from the United Kingdom's All-Party Parliamentary Group on Global Health highlighted, migration is only one part of the workforce problem confronting low- and middle-income countries. It states: 'For example, it has been estimated that if every African health worker who had received some level of health worker training and then emigrated were to return home, this would only address about 10% of the shortage in the continent. There are many interconnected problems but in numbers terms the single biggest factor is that not enough nurses and other health workers are trained in the first place.'

Nonetheless, healthcare migration is still a big issue. In 2010 the obvious problems it was causing prompted the 193 member states of the WHO to adopt the Global Code of Practice on the International Recruitment of Health Personnel.²⁸ It describes the responsibilities of everyone from governments and recruitment agencies to the staff themselves, trying to balance the obligations of healthcare

workers to the country in which they were trained with their right to find work abroad.

It committed countries to promote the sustainability of healthcare systems in developing countries, and to improve their own health workforce planning, education, training, and retention to reduce the need to attract migrant staff.

While the global commitment to the code of practice is a promising step, it is difficult to discern a significant impact. Analysis of its first few years indicates that progress is patchy at best.²⁹ To truly meet the size of the challenge, global action needs to be sustained, radical, and imaginative.

Short-term thinking

All over the world, I have seen how health systems and organizations repeatedly tackle the urgent rather than important issues. It is easy to see why. Faced with ever-increasing patient demand as populations age, grow, and carry a greater burden of non-communicable disease, health systems have to deal with immediate pressures. Some take the workforce for granted and nearly all health systems have been blithely assuming that someone will always be there to cope with the work. Workforce planning is technically difficult because the periods over which forecasts are made are long and the impacts of new models of care are difficult to compute.

At least some of the workforce planning failures are the result of unrealistic expectations from politicians and policymakers disconnected from delivery. Workforce planning is often isolated from clinical and financial planning. A high proportion of education and training costs are spent upfront on attracting new recruits—driven by competing professional silos and interest groups—while fewer resources are committed to developing the existing workforce and ensuring the right skills exist in the right numbers in the right place at the right time. Workforce planning requires the ability to respond flexibly to different supply and demand factors over time. As the King's Fund has pointed out, it is less about long-term predictive precision than about developing an adaptive, flexible approach.

Solving the problem—by 20%

Surely it can't be that difficult? After all, we managed to sequence the human genome back in 2003 after more than a decade of endeavour, and that was a rather harder challenge. But while other industries take much more flexible, agile approaches to managing their workforce needs, human resource management in healthcare is much more about process than practice. I am not a workforce or human resource specialist, but I am convinced this problem can be solved. Over the following chapters I outline a series of actions that, when taken together, can improve workforce capability and the capacity to care by 20% or so.

Leading—not resisting—the productivity debate

The debate in healthcare about workforce supply, sufficiency, and pay has taken place on the wrong territory. For the next decade, the discussion needs to address productivity head-on. Across the world, productivity in healthcare has been lacklustre. I used to think that care process redesign and quality improvement techniques such as Lean could modernize care pathways and improve productivity. While this is sometimes true, I have increasingly come to recognize that many of these worthy initiatives, which often take years, fail because managers realize too late that they have not got the clinical skills they need in the right place at the right time, and in the right quantity and quality.

If we are to have sufficient healthcare staff enhancing population health and national wealth, then management and investment strategies for staff and technology need to be radically different. While it is easy to highlight the difficulty of assessing the true productivity of healthcare, given the numerous ways we can judge and measure patient outcomes, it is now essential we do so.

Like other industries, productivity usually grows through four major sources: improving the well-being and health of the workforce (reducing absenteeism); investing in training, education, and development (skills); introducing new forms of technology (efficiency); and innovating with new care and business models (effectiveness). In America healthcare productivity has actually decreased by 0.6% annually over the past 20 years compared with 2.5% growth across the entire economy, while in the United Kingdom, NHS productivity grew at 0.8% per year from 1995 to 2015³⁰ (about half the rate of the entire economy). If health is to generate greater national wealth then it is vital to link the health and well-being of the workforce explicitly with productivity, so governments and business make the necessary long-term investment to realize this ambition.

For example, Australia has enjoyed its longest period of economic prosperity, yet its productivity growth has been stagnant for the past decade. Ironically, in the age of artificial intelligence, a recent report by Australia's Productivity Commission says that across the OECD, growth in GDP per hour worked was lower in the decade to 2016 than in any decade from 1950.³¹ The report went on to suggest that healthcare could play a leading role in improving national performance and highlights a change in thinking about productivity.

It says the emphasis has shifted from the need to produce goods more cheaply to improving human capital—the knowledge, skills, and work practices of staff—and delivering more efficient and effective health, education, and related services. The report recognizes that Australia is now predominantly a service economy and that healthcare is both a clinical service and a significant economic driver. Like other OECD countries, healthcare represents a growing share of the Australian workforce, growing from 1.1 million to 1.6 million—13.3% of the total—in the decade to 2017. Employment in retail, mining, and manufacturing has remained static. Significantly, the productivity report concludes that improving the effectiveness of the healthcare workforce 'would bring welfare gains for the individuals concerned, savings for the health system and gains for the economy more broadly'.

Change is a human contact sport

The increased motivation and improved performance management of the health workforce is one of the most neglected areas in health practice today. The trapped potential of millions of people across health systems is enormous. In nearly every conference I speak at, I ask the audience what percentage of their staff have meaningful objective-setting and appraisals which are aligned with their team's or organization's objectives. You may be shocked to learn that only one-fifth to one-third put their hands up. How can people deliver compassionate care if they are not cared for too?

As the Chartered Institute of Personnel and Development stresses, there is a consensus among academics and practitioners that performance appraisal can encourage a range of organizational outcomes including task performance, productivity, loyalty, satisfaction, and commitment. Yet, ironically, the special status of caregivers is often used as an excuse to ignore standard management techniques that work perfectly well elsewhere. Healthcare professionals should be given more responsibility and accept greater accountability for what they do.

If change is a human contact sport, then we had better contact human beings. Organizational charts often juxtapose organizational health (so-called softer measures such as culture, staff well-being, and organizational development) with organizational performance (the hard metrics of activity, margins, profit and loss, or shareholder return). While you can always perform better on one than the other for a limited time, in the long run the best organizations seek a balance. The same should run true for hospitals and health systems.

Health organizations can become substantially more efficient and effective just through smarter objectives and better appraisal, management, and staff development. As noted in Value Walks, the KPMG International report in 2016, there are five characteristics that separate great health employers from the good and the bad: a strategic focus on value for patients, empowered staff, process redesign, innovative use of technology, and the management of staff performance. Given the looming workforce shortage, we need to broaden the skill base for health and care staff, encourage their flexibility, and reduce costly demarcations that do not serve patients' interests. In other industries the war for talent is seen as mission critical; the same urgency needs to be applied on an industrial scale in healthcare.

Inverting and reimagining the pyramid of care

The clinical hierarchy of doctors, nurses, allied health professionals, and care assistants has remained largely unchanged for a century or more, and most spending on education, training, and development of healthcare workers is focused at the top of the skills pyramid. This fails to reflect the rapid rise of chronic conditions for which lower-skilled care workers, alongside devices, technology, and algorithms, can provide substantial levels of support as well as encourage a significant degree of self-management.

To be clear, I am certainly not arguing that clinical staff should get less attention, but given the impending workforce shortages there is a compelling opportunity for untapped labour sources to enter the healthcare workforce. We will talk later about patients and the part they can play in leveraging our productive capability, but we should also mobilize at scale people with basic secondary education qualifications, the underemployed, and the unemployed. These people tend to live and work in the communities that need their help.

My solution is to invert the traditional thinking about investment in skills and create a large cadre of care workers that today might be called care assistants. Instead of recruiting, training, developing, and paying at different rates and various ways, employers and educators should come together across health, social care, and human services. As I shall describe later, the most radical approach to changing the pyramid of care I have seen is Buurtzorg, the home care provider in the Netherlands, which supports tens of thousands of people through self-directing nurses, each providing a wide range of skills from basic to advanced, backed by a flat management structure.

Within our grasp

What could be more important to human beings and nations than the health of the world's citizens? Health, and how a country cares for its people, is a hallmark of a civilized society. I was a member of the NHS Management Board that published the first Constitution for the NHS back in 2008 (to celebrate its sixtieth birthday). It stated that 'the NHS belongs to the people and exists to improve our health and well-being, supporting us to keep mentally and physically well, to get better when we are ill and, when we cannot recover, to stay as well as we can to the end of our lives. It works at the limits of science—bringing the highest levels of human knowledge and skill to save lives and improve health. It touches our lives at times of basic human need, when care and compassion are what matters most'. These are noble goals for any country, and they are within our grasp.

All of this sounds fine on an objective, detached level but as we all know, health and healthcare matters most when it's personal. My world was shaken when I discovered, quite by chance, that I had prostate cancer at the age of 42. Ten years on, and thanks to a radical prostatectomy provided by the NHS, performed by a German surgeon and cared for by a charge nurse from the Philippines and a British general practitioner, I am fortunate to be able to enjoy my life, my children, my community, and a job that takes me to every corner of our amazing planet. Without the globalization of science, health workers, and their skills, where would I be? Where would we all be?