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A Report by the All-Party Parliamentary Group on Global Health

Probable Futures and Radical Possibilities

An exploration of the future roles of health workers globally

Summary

July 2022

This report

Probable Futures and Radical Possibilities – an exploration of the future roles of health workers globally

This report explores the future roles of health workers globally. It is based on interviews and discussions with health workers, patients' representatives, academics and political leaders from 17 different countries, many different professions and backgrounds, and a mix of ages. These were supplemented by both general and focused reviews of the literature.

Probable Futures and Radical Possibilities is a policy document which makes recommendations to governments, and everyone involved in health systems and health workers' education, training and development.

It takes a very broad definition of a health worker as anyone, professional or otherwise, whose primary role is in providing health services, involved in organising and running health services and systems, a researcher, or working in public health. This does not include family or informal carers, advocacy organisations, or workers in other sectors who have a health role but whose primary motivation or role is different.

All-Party Parliamentary Groups

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Probable Futures and Radical Possibilities

This is a summary of a report published by the All-Party Parliamentary Group on Global Health, copies of this summary and the full report can be obtained at https://globalhealth.inparliament.uk

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Preface

This report is an exploration of the future roles of health workers globally looking forward over the next 15 to 20 years. We have been privileged to discuss the future with a wide range of people from around the world, gathering ideas and gaining perspectives. This has enabled us to describe probable futures in the report – areas where there is a great deal of consensus about the future – and identify radical possibilities which are far more uncertain but could have enormous impact.

The NHS and other health systems are vitally important but social, economic, political and environmental factors have an even greater impact on the health of populations. The central message of the report is therefore that health workers will need to take on a strengthened role as ***agents of change and curators of knowledge*** able to support, influence and guide patients, the public and people working in other sectors.

They will also need to become much more technologically skilled. As the report says ***science, technology and data will determine much of the framing and the language of health, shape how health workers think about health problems and possible solutions, and how they act***.

This report has a global focus, but it also describes the implications for the UK and the very powerful role it can play in educating and developing health workers and improving health globally.

This is an extraordinarily difficult time for everyone working in health, and for their patients. Health systems are seeking to recover from the Covid-19 pandemic and are now facing a growing financial crisis. There are also massive shortage of health workers both globally and nationally as described in this report. There are no easy fixes but we hope that the report and its recommendations will help achieve a more manageable and stable position in the mid to long term.

Our findings are displayed in a simplified form on the following two pages and described in this summary document. The full report is available on our website.

The APPG was delighted to be able to work closely with Health Education England, sharing ideas, evidence and insights as it undertook its own workforce planning *Framework 15: Shaping the Future Workforce* on a similar timescale.

We have also built on the powerful contribution of the World Health Organization (WHO) which has been working to raise the profile and importance of human resources for health since the landmark publication of *The World Health Report: 2006: Working Together for Health*[1] and we have particularly benefited from the advice and support of Dr Jim Campbell, WHO's Director of Workforce.

The APPG is grateful to everyone who has participated in the review, our sponsors and Professor Jolene Skordis and her colleagues and students at University College London who have undertaken literature reviews for us. We are particularly grateful to Dr Sam Nishanth Gnanapragasam the APPG Coordinator who has played a leading role in collecting the evidence and in writing the report with Nigel Crisp.

Dr Dan Poulter MP (Chair), Lord Nigel Crisp (Co-Chair), Baroness Sheila Hollins, Lord Bernie Ribeiro, Baroness Mary Watkins, Charlotte Beardmore, Jo Lenaghan, Professor Alistair Fitt, and Professor Jolene Skordis.

Probable Futures

Our vision

A common effort across society to improve health
Health workers as agents of change and custodians of knowledge
Most care delivered at home and in communities

Todays reality

Chronic Shortages
Exhaustion
Siloed ways of working

100+ million health workers
43 million more needed for
Universal Health Coverage

Global drivers of change

Health and well-being central to society
Changing disease patterns, health risks and demography
Crises in health systems and the health workforce
Transformational advances in science and technology
External events – pandemics, climate change, war

and Radical Possibilities

Probable futures

Blended in-person and virtual working
Provided in communities and homes
Co-creation with patients
New focus on public health
And mental health
Enhanced teamwork
Flexible employment
Agents of change

Radical possibilities

Self-organising teams
Changing recruitment
Re-design primary and community care
Reform professional education
Global partnerships to increase numbers

Recommendations

Global: Whole of society approach | Invest and recruit from whole population | Re-design education system | Global partnerships to increase numbers | Consortia of universities | WHO code on recruitment | Allow time for change

UK: Implement HEE report | More flexible regulation | Take a lead globally | Partner for mutual learning | Restore ODA cut | Broad based competencies | Compassionate leadership

Health workers: Take the initiative, don't wait for policy to catch up

Summary of report

An exploration of the future roles of health workers globally

There will be major changes in health workers' roles globally over the next 20 years and beyond – in what they do on a day-to-day basis, in their relationships with others, and in the way they are organised, employed and educated.

This report is an attempt to understand what will drive these changes, what the result might look like and how governments, institutions and the professions could shape and steer developments. It describes the probable changes – where there is a broad convergence of opinion – and some more radical possibilities.

The report's focus is global, but it also spells out the implications for the UK and discusses ways that the UK can contribute to strengthening the health workforce globally to the benefit of all.

The most radical idea at the heart of this report is that health workers will increasingly need to become ***agents of change and curators of knowledge*** in addition to their other roles as clinicians, researchers or specialists in public health, policy and management.

This is accompanied by a vision for health described in Box 1.1 which envisages a future where: there is a common effort across all sectors to improve care, prevent disease and create health; health professionals are agents of change and curators of knowledge; and most care, treatment and support are delivered in homes and communities through blended in-person and virtual services and transformational technology.

Box 1.1: A vision for health for the future

A vision for health for the future

- **There is a common effort across all sectors to improve care, prevent disease, and create health** – with the links between health and education, employment, the physical, social and political environment and the economy well understood and providing the basis for shared policy and action
- **Health professionals are agents of change and curators of knowledge** – who as well as undertaking their own specific roles are able to influence, inform, support, develop and facilitate action by members of the public and organisations in all aspects of health and care
- **Most care, treatment and support are delivered in homes and communities** – in person and virtually by multi-disciplinary teams working in partnership with patients, families and communities, using the latest data and technology, and with easy access to more centralised specialist services when these are needed.

Choices for countries, organisations and health workers

This is not the only possible vision.

The report describes the massive array of social, economic, demographic, political and epidemiological changes that are underway nationally and globally and which are already affecting health and, in some cases, helping create crises in health systems. The way in which these continue to play out in any country will depend in large part on local circumstances and on the choices made by their governments, citizens, institutions, and health leaders about priorities and their vision for the future.

Governments have fundamental decisions to make about the direction in which they want to steer their systems and about how they conceive of health – whether as being primarily about healthcare and health services or about something much wider. Do the governments or others running health systems see themselves as responsible for securing the health of an area or nation or more simply as ensuring health services are available? The answer to this question and their vision for health for the future will very largely determine the roles of health workers in their country or system and the education and training that they will require.

The reality is that the complexity of decision making as well as lack of time, funding, and other resources will complicate the picture enormously. Developments will not happen in the ordered and logical fashion advocated by reports such as this – and many health workers will find themselves unprepared for new approaches and new technologies. Nevertheless, it is important that countries have a vision for the future and know what they are aiming for so that that they can steer their policies in this direction and make gains where they can.

Health workers also have choices to make. The vision described in Box 1.1 gives them a strengthened role as professionals, leaders, enablers and facilitators. It is perfectly possible, however, based on some current trends to imagine a future at the other extreme from the one described.

This would be a future which is not driven by people, localness and society but by narrowly defined commercial, political and technological considerations. A future in which health workers very largely become technicians, working in pre-ordained ways, following rules, cogs in the machine. Their activity would be transactional not relational. Followers not leaders.

Some health workers feel that this future is already here and that this is contributing to the current crises in the health workforce. It is vital therefore that the professions and bodies representing health workers have a positive vision for their own future and, as the report argues in its recommendations, that they develop their roles and competencies as agents of change and curators of knowledge – leaders and movers and shakers in health.

Agents of change and curators of knowledge

Health systems and health workers cannot, and should not, take responsibility for every aspect of health. They are not responsible for poor housing, addictions and social inequality, for example, and cannot tackle them by themselves. They can, however, develop new roles in facilitating and supporting others to do so, across the whole spectrum of maintaining and creating health and preventing disease.

The concept of health professionals as agents of change came from a Lancet Commission on professional education which described how health professionals as leaders need to be constantly shaping and re-shaping services and approaches to health[2]. It is a similar idea to that promulgated by the Institute for Healthcare Improvement (IHI) when it says that every health worker has two jobs – their own job and making improvements[3].

Recent publications have taken these ideas further by recognising that families, communities, schools, employers, housing associations, planners, businesses, governments and every other part of society shape peoples' health and life chances – sometimes for good and sometimes for bad – and that they, not health workers, make the decisions in all these areas and are ultimately in control. Health workers as agents of change have a role in helping them to do so as effectively as possible by influencing, supporting and guiding them[4-6].

This is an idea which will become more important as we understand more fully how these groups affect the health of individuals and populations and how important it is to address the social, environmental, economic and political

determinants of health[7]. In the words of Professor Francis Omaswa, former head of the Ugandan health service, *"Health is made at home, hospitals are for repairs"*[8]. Health is made at home and in the family, the community, the school, the place of worship, the workplace ...

A significant part of this role will be for health workers to help others access knowledge about health at a time when knowledge and truth have, too often, become relative, negotiable, "alternative" and disputed. In an interview for this report Dr Julio Frenk, co-chair of the Lancet Commission and a former Mexican minister of health, suggested that health workers in the future could also be *curators of knowledge*, keeping abreast of the findings of science and evidence in their field, and making it available and accessible to the public.

These ideas are closely linked with three others which are central to this report. The first is the importance of community and context and of the need to deliver services far more locally in homes and communities. The second is the vital but often over-looked role for health creation (salutogenesis) – with its focus on the *causes of health* creating the conditions for people to be healthy – and not just on the *causes of disease*, prevention and the treatment of disease (pathogenesis). The third is the recognition that the health of individuals is intimately connected with the health of communities, the health of wider society and the health of the planet.

Much of the thinking and debate about health has been dominated by the old mindset where health=healthcare=health professionals=institutions. This needs to be replaced by a far more sophisticated understanding of health.

These ideas – and their implementation in practice – will be supported by advances in science and technology and by a new focus on health workers making the most effective use of data and evidence at every step. Taken together, they represent a very substantial change from current practice and will require equally radical changes in the education and training of health workers.

The global context

Probable Futures and Radical Possibilities takes a global perspective which looks at the health sector in the round, addresses the links between countries as well as their differences and commonalities and is based on discussions and evidence from all regions of the world.

There are significant differences between and within countries. Demographic pressures, to take just one example, are very different with African countries having fast growing young populations while East Asian and European countries have shrinking and ageing ones. Health needs are very different in these different countries. There are, however, many commonalities – science is science, biology is biology, technology can help us all and health workers everywhere will need similar foundational skills which they can adapt to their own particular environment.

There are also shared global threats – most notably pandemics, climate change and conflict. The Covid-19 pandemic not only exposed long standing problems in health systems and the workforce including the shortages of health workers, the inadequacies of current systems, and the inequalities in societies. It also revealed starkly the massive global inequalities in access to vaccines, treatments and care.

Wars and conflicts in many countries are causing dreadful casualties, blighting the lives of many more and leading to migration and the largest number of refugees since the second world war. The combined effects of conflicts and the pandemic mean that life expectancy has fallen globally, patients are missing out on treatment, mental health problems are growing, and there is widespread exhaustion and burnout among health workers.

Conflict and the pandemic have also undermined the very positive vision of global solidarity which was exemplified by the global agreement to the Sustainable Development Goals as recently as 2015[9]. It now needs to be re-built in different ways which recognise the changing and uncertain political environment[6]. Moreover, and very importantly, countries can all learn from each other and work together on shared problems.

The health workforce data are compelling

Globally and nationally the health workforce data are compelling. The numbers shown here are only a series of snapshots in time and have been arrived at by different researchers using different methodologies. They therefore need to be treated with caution. There can be no doubt, however, about the scale and the complexity of the problem. It is about numbers of health workers, growing demand, their uneven spread, their education and training, morale and age profile. There is a developing crisis, and the combination of health worker shortages and financial constraints make change inevitable.

Estimates of the number of health workers globally range from 104 to 135 million, depending on the methodology used and who is counted as a health worker[10, 11]. A recent report from the Global Burden of Disease study shows that to achieve Universal Health Coverage everywhere requires more than 43 million additional health workers based on 2019 figures. Two thirds of this shortfall is in nurses and midwives. Clearly, a lower number would be needed to achieve a lower standard. Equally clearly, there will be big differences between countries and there is a demand for higher numbers in many countries in order to achieve higher standards.

There is uneven distribution of health workers between countries – with low-income countries having the lower numbers despite having the greatest health needs. There is also uneven distribution within countries with rural and poorer areas typically having lower numbers.

There is a global market in trained health workers with doctors and nurses in particular being highly mobile. There is also considerable migration by untrained or semi-skilled care workers from low-income countries to higher ones.

There is evidence of low morale, high turnover rates, early retirement and people leaving the professions in many countries. This attrition is exacerbated by an ageing workforce in some areas. It is also influenced by a younger generation who, as described later, have higher expectations than older colleagues about support, development, careers and work life balance.

The standard of health workers' education and training is highly variable around the world. This, together with staff shortages, means that patient outcomes are very poor in some areas.

Box 1.2 overleaf reveals something of the urgency of the current situation and provides the backdrop against which governments and others need to take action.

There can be no doubt, however, about the scale and the complexity of the problem. It is about numbers of health workers, growing demand, their uneven spread, their education and training, morale and age profile.

Box 1.2: The health workforce in numbers

The health workforce in numbers

There was an estimated **43 million global shortage** of health workers in 2019 (6.4 million medical doctors, 30.6 million nurses and midwives, 3.3 million dentistry personnel, and 2.9 million pharmaceutical personnel) relative to minimum workforce density thresholds required to meet universal health coverage[10].

There is **demand for greater numbers** to achieve a higher level of health care. A 2021 estimate suggested that the UK will need 1.1 million more health workers by 2031[12].

The work force is **spread unevenly around the world** with low-income countries having on average 9 trained nurses and midwives for 10,000 population and high-income countries having on average 115 for 10,000 population[13]. About a billion people globally never see a trained health worker.

The workforce is also **spread unevenly within countries** with rural areas having on average 38% of nurses and 24% of physicians despite 50% of people living in those area[1]. Poorer and more disadvantaged areas typically also have lower numbers.

There is **migration between and within countries** with, for example, an estimated 15% of health and care workers globally are working outside their country of birth or first professional qualification[14]. There has been an estimated 60% rise in the number of migrant nurses and doctors working in OECD countries in the last decade.

The health workforce in many countries is **ageing** with, for example, 17% of all nurses globally being aged 55 or over[15], and one in six of the global nurse workforce are expected to retire in the next ten years[16].

Morale, particularly after COVID is poor in many places with a survey from Sub-Saharan Africa, for example, showing that 50% of nurses have an intention to leave their job[17].

The **quality of education and training** is very variable and compounded by staff shortages, poor equipment and facilities in some areas results in harm to patients. Treatment by appropriately trained professionals improves outcomes and reduces mortality[18].

Seventy per cent of the health and social **workforce are women**, compared to approximately 41% in all employment sections[19]. As such, investment in the health workforce also creates and widens opportunities for women and young people.

The shortages of trained health workers lead to **increased mortality and morbidity**[20].

The major drivers for change

Health workers, academics and politicians from around the world were asked, as part of the research for this report, to identify the main drivers for change. These have been grouped into five main areas which will profoundly influence health systems and the health workforce in the future for better or for worse.

These are shown in Box 1.3 and discussed below.

Box 1.3: The drivers of change – the five major groupings

The drivers of change – the five major groups

- **Health and well-being are becoming ever more central concerns for our societies and linked to inequalities and life chances** – and, at the same time, social, environmental and economic issues are becoming central to health systems and the education and roles of health workers.
- **Changing disease patterns, health risks and demography** – which are affecting different countries and regions differently. There is a global growth in non-communicable diseases and co-morbidities as well as ageing populations in some countries.
- **Health systems and health workers alike are engulfed in slow-burning crises** – these are characterised by the continuing use of 20th century models of healthcare to deal with 21st century problems, with all the accompanying inefficiency, and by a significantly exhausted and demoralised workforce, experiencing staff shortages and working under great pressure.
- **Advances in science, technology and the use of data are opening up many new possibilities for tackling disease, repairing minds and bodies, and improving health** – and they will determine much of the framing and the language of health, shape how health workers think about health problems and possible solutions, and how they act.
- **External events will force change** – pandemics, climate change, political turmoil, conflict inside and between countries, migration and economic crises will affect the demands placed on health systems and health workers.

The first of these five groups of issues is the interconnectedness of social, economic, environmental, and political issues with health and wellbeing and their link to inequalities and life chances. There is a growing awareness of, to take just one example, how vital education is to being healthy and how important health is to educational attainment. This has been known for years, of course, but is only now becoming part of wider public discourse – in part thanks to the Covid-19 pandemic. Similarly, the links between health and food are vitally important and work both ways with each affecting the other.

Education, employment and life chances are all affected by health and a new report from a high profile thinktank has argued for a change in the narrative about health so that it is described as an investment not a cost – something which has been recommended before but never achieved traction[21].

Timing is vital and there appears to be an opportunity for change. Recent years have seen wellbeing budgets adopted in New Zealand, new definitions of the value added by services which include health, and a new interest in the links between healthy individuals, healthy communities, healthy societies and a healthy planet.

There is also a very widespread drive to address inequalities within countries and between countries. It is an idea that is now well rooted both in public discourse and in the changing balance of power around the world. As a result, we can expect it to drive policy change in the coming years with renewed focus on the needs of vulnerable, alienated, minority and excluded groups.

The second group embraces the multiple ways in which changing diseases, risks and demography affect health. Population growth, ageing and demographic changes have implications for health needs and the disease burden. There is a global shift in the disease burden from infectious, neonatal and nutritional diseases that typically affect children to non-communicable diseases that typically impact adult populations who will increasingly have co-morbidities as they age.

This is not just a problem for affluent and ageing western countries. Low- and middle-income countries face the triple or quadruple impact of "epidemics" of infectious, non-communicable diseases, maternal mortality and physical trauma. HIV/AIDS, TB and malaria are still widespread at the same time as increasing diabetes and heart diseases incidence globally.

The third group of drivers, stressed very strongly by almost all the people interviewed, is that there are developing crises in health systems and the health workforce which are already causing major disruptions and difficulties. These is partly due to the changing needs and aspirations noted above and because current service models are poorly designed to deal with co-morbidities, long term conditions and the needs of diverse groups in the population. This results in great inefficiency, poor quality care and unsustainable costs.

There is also what Maureen Bisognano, President Emerita of IHI, called *"an epidemic of exhaustion"* in the health workforce with demoralisation, burn-out and large-scale resignations or early retirements. Other respondents pointed to the fact that a large part of the health workforce were lower paid and mostly female and that their conditions, pay and status needed to be improved. Moreover, younger people were looking for more flexible working environments which better meet their work and life needs.

The fourth group are the advances in science, technology and the use of data which are all vital in making change happen, enabling the fourth industrial revolution. Some of this will be truly radical and create extraordinary new possibilities. Some services will disappear, and some new ones appear. We need only think of the way in which advances in imaging and interventional radiology have changed diagnosis and surgery in recent years or how new drugs and therapies have turned most cancers from short-term acute killers into long-term conditions. Or, most topically, how vaccine technology has developed rapidly in response to Covid-19.

Science, technology and data will determine much of the framing and the language of health, shape how health workers think about health problems and possible solutions and how they act. They will not, however, in themselves dictate what happens. Ultimately, health is about human beings, societies and physical, social, political and economic environments and about the choices people make. As Dr. Sangita Reddy, joint managing director of Apollo Hospitals told us *"We can all buy the technology, but it is the people who make the difference"*.

The fifth and final group, mentioned by almost everyone are the great global developments which range from war and pandemics to climate change and economic crises which were briefly described earlier. All of these will have profound impacts on health and wellbeing. The impact of climate change, for example, will affect health in many different ways and will over time add enormous pressures with further migration, changes in disease patterns, and growing starvation and food shortages. It will also add massive costs to the expense of recovering from the pandemic and dealing with the problems of conflict at a time when the world economy is already under pressure.

The exact way that these different drivers play out in any country will be unique to the country. However, all countries will be affected in some way.

Probable futures

Probable futures – the changing roles of health workers

This report's focus is on the way health workers' roles may change over the next 15 to 20 years. It asks what will health workers aged 25 today be doing when they are 40 or 45 and playing leading roles in health?

Interviews and research for the report revealed that there are many common ideas and considerable convergence of thinking about future roles which are shared by people around the world. These can be described as characterising probable futures. These characteristics include:

- **Blended working which normalises and makes routine the best use of data, research, technology and systems thinking** in a future of blended services where some services and some parts of services are virtual, and some are in person and where the generation and use of data and evidence is routine, and research becomes a normal part of practice.
- **A local focus** where health workers need to understand the impact of the wider determinants of health, culture, communities and environment on their patients and their communities including such factors as housing, nutrition, education and access to employment.
- **The development of co-creation** where health workers work alongside their patients.
- **A renewed emphasis on public, population and global health** with new approaches to epidemiology, targeted interventions, health protection and disease prevention and a new focus on health creation and on understanding the causes of health.
- **New priority for mental health** and better integration with physical health.
- **A much greater emphasis on teamwork** – encompassing professionals, non-professionals and lay people – and the development of **new roles and task sharing** between professions and groups.
- **Increased flexibility** in employment and organisational structures.

Underpinning all these other changes will be the further development of health workers as **leaders, agents of change and curators of knowledge**. This can be done in a piece meal fashion with individuals taking on this role on their own initiative as part of a "probable future" – as some do now – or as a more "radical possibility" where this is implemented as a system wide change.

These characteristics represent a major shift in roles which will require a great deal of thought and practical planning as well as changes to education and training. It will also require a great deal of political will, time and resource to implement these changes. The reality is that these developments will mostly come about in an unplanned and uncoordinated fashion and proceed at different paces in different countries and different settings. Nevertheless, the overall direction is clear, and the more planning and resource devoted to their introduction the better the outcome will be for patients and populations.

Health workers and their skills, interests and development will themselves drive change and help shape the future. Nursing in particular has undergone a massive development in the past 30 years with degree level education and new opportunities and roles being developed. The benefits are already becoming apparent with new services, new ways of delivering care and new perspectives influencing developments.

The APPG drew attention to these developments in nursing in its 2016 report *The Triple Impact of Nursing*[22] and sought to accelerate them though the global *Nursing Now*[4] campaign which it started. The campaign which ran from 2018 to 2021 reached more than 120 countries and advocated raising the profile and status of nursing.

The Nursing Now campaign argued that nurses were too often undervalued and unable to work to their full capabilities – "the top of their licence"[23]. Moreover, the increase in long-term conditions coupled with improved education and training and the development of nurse practitioner and other new roles meant that nurses had a greater clinical and leadership role to play in the future. The campaign called for more nurse-led services in primary and community care and the management of long term conditions as well as a greater involvement in service planning and leadership. It argued that Universal Health Coverage would not be achieved without supporting and enabling nurses and midwives to achieve their potential.

There will be other changes, too, in the balance of roles between professions and between professionals, and between them and non-professional groups such as community health workers and lay people. Task sharing and task-shifting between groups will become increasingly common. There is need to ensure that this does not turn into task dumping, and that appropriate training, supervision and support is provided.

Exactly how these changes play out in any health system will depend on the local environment and, as noted earlier, the choices that governments and health leaders make about the sort of health and care systems they want. Finances will also play a major part in what is and can be achieved and, conversely, what is damaged or destroyed as a result of the massive financial pressures caused by the pandemic, wars and the current economic downturn.

Dr Natalia Kanem, Executive Director of UNFPA, the United Nations sexual and reproductive health agency, suggested to the APPG that midwives working autonomously and often single-handedly in villages across Africa offer a very good model for what the future might look like. She suggested that these midwives are a perfect example of health workers acting as agents of change and curators of knowledge. They make professional judgements and provide high-quality clinical services, but they also influence and advise mothers and communities and can help bring about changes in attitudes and behaviours.

These midwives are in many ways the exemplars of a way of working that addresses the physical and psychological needs of individuals, while helping shape their social and physical environment. A very ancient profession that is also a very modern one.

Probable futures – education, training and regulation

The report, in responding to these changing roles, embraces the idea of competency-based education as spelled out in the Lancet Commission report on *Education of Health Professionals for the 21st Century*[2]. This will support health workers to react to changing health needs, break down siloed ways of professional working and promote inter and multi professional ways of working and help health workers develop the skills and tools to be effective team members and leaders.

It also recognises the growing need for more health workers to have broader based education and training – with exposure to mental health, public health and different disciplines – so that they are better able to manage people with co-morbidities whose health problems do not fit easily into any specialist category. Specialisation is vital but there is also a need for this to be balanced by an understanding of wider issues and good access to other team members with other knowledge and skills[24].

The report also stresses the importance of widening recruitment into health, the development of leadership, offering team-based education and community-based training, strengthening postgraduate life-long learning, supporting students and staff wellbeing from the start of education, and building value-based education systems.

Migration of health workers from lower income to higher income countries is likely to become an even greater problem in the future and the report considers ways of handling this to secure fairer outcomes with receiving countries supporting sending ones with their own workforce development. As part of this the *WHO Global Code of Practice on the International Recruitment of Health Personnel* needs to be fully implemented and given far higher priority in international agreements.

These midwives are in many ways the exemplars of a way of working that addresses the physical and psychological needs of individuals, while helping shape their social and physical environment.

Radical possibilities

Radical possibilities

The report also identifies some radical possibilities for the future. Five of them are described in the report:

1. **Health workers working in self-organising and self-employed teams, outside the traditional health institutions.** Doctors in some countries already work like this but it could be extended to other professions – as Burtzog is doing with nurses in Holland – and to multi-disciplinary teams and become the norm globally.

2. **Recruiting and educating health workers from local communities and all sectors of the population.** Cuba's Latin American Medical School was established to educate people from low-income communities and countries to be doctors in their own communities and countries. Other smaller scale initiatives are establishing new career pathways for people from lower income communities.

3. **The complete re-design of primary, community and home-based care, embracing physical and mental health, integrating it with public health, education and other appropriate services and becoming the location for most care and treatment.** There are many developments and initiatives but not as yet anything that has this complete focus for health, broadly as envisaged in the Alma Ata Declaration of 1978.

4. **Reforming professional education around the three stages of informative, formative, and transformative education and the development of global consortia of universities and other organisations to deliver the new model.** This extends the thinking of the Lancet Commission on the education of health professionals and will help secure quality and consistency of standards across a vastly larger and very mobile global workforce.

5. **A massive increase in the numbers of health workers educated and trained globally through partnership working across the world.** Health Education England has pioneered the use of "earn, learn and return" arrangements for educating health workers abroad. Apollo Hospitals has now made a proposal to the Indian government to lead on global partnerships with a headline target of educating a million health workers a year.

Many participants in the review stressed the importance of mental health and of truly giving it parity of esteem with physical health, particularly in the aftermath of the pandemic. There are many interesting innovations being developed and trialled including several new types of role such as specialists by experience, mental health advocates, peer support workers and others. Charlene Sunkel of the Global Mental Health Peer Network, for example, reasoned that peer support workers need to become a formal occupational category in order to promote human rights more effectively and tackle inequalities.

There appears to be scope for much more innovation here and in the care of people with intellectual disabilities, autism or dementia. This might include radical proposals for the bringing together of psychological and physical health services – recognising that many people have health needs in both areas and that professionals in both have some level of shared knowledge, even if it is not often utilised.

One interesting development in the UK is the very recently launched **Beyond Pills: Hope for the future campaign**. This is led by young health professionals and students and is focused on transforming the undergraduate and postgraduate curricula for health-related subjects to ensure its suitability for 21st century demographic needs[25].

Their mission is that by 2030, young trainees and recent graduates in health-related subjects will deliver medicine beyond medicines using a truly biopsychosocial approach to health and care. This will ensure patient's social, psychological, emotional and practical needs are being met through principles of personalised care, social prescribing, prevention and health creation. The campaign argues that long term change can only be achieved by transforming education, changing the culture, and nurturing one generation at a time.

Meanwhile the Nursing Now campaign has become the Nursing Now Challenge linking more than 55,000 young nurses and midwives globally so they can share and develop ideas for the future.

Implications for the UK

This report's focus is global, but it also considers the implications of its findings for the UK in two broad areas – the UK's contribution to developing the health workforce globally and the development and management of the health workforce within the English NHS.

As earlier APPG reports have demonstrated, the UK is a global leader in health. These noted that the UK "has world class universities and research, is a global leader in health policy and international development, has strong life sciences and bio-medical and bio-tech industries, and a vibrant and diverse not-for-profit sector"[26,27]. The UK is second only to the US in terms of contribution to health and health sciences globally, which it surpasses in some areas.

The UK's strengths in research, education, networks and partnership are particularly relevant to this report where they provide a strong foundation to build on. Recent developments including continuing government priority for life sciences and the very successful vaccine programme have strengthened this position. However, other developments including the continuing fallout from Brexit have harmed some crucial relationships. The cut in Overseas Development Aid at a time when low-income countries have worsening problems and when other international donors have increased support has also damaged the UK's reputation. There is also considerable concern, as mentioned earlier that the UK and other countries are returning to recruiting health workers internationally in ways that will harm health systems in their home countries.

There are clear opportunities for the UK to play an even greater role in educating the health workers of the future – in developing and implementing these new approaches to education and training, creating global consortia and other organisations to deliver education and training to millions more health workers in the UK and abroad, and through working and learning together with other countries. Grasping these opportunities would continue the great UK tradition of promoting health globally and at the same time benefitting UK universities and enterprises and strengthening the UK's soft power and influence.

The APPG report also considers its findings to the particular context of the English NHS where, as noted earlier, Health Education England has undertaken a workforce planning review and there has been a review of leadership and management. There are five areas of importance this report highlights for England:

1. Meeting the changing health needs of an ageing and diverse population with increasing levels of co-morbidities through the development of broad-based skills, competencies, and training for health professionals.

2. Strengthening leadership is health systems through building on the ideas of compassionate, collective and inclusive leadership as well as the recent *Health and Social Care Leadership Review Leadership for a Collaborative and Inclusive Future*.

3. Undertaking regular workforce review and planning in an open and independent fashion.

4. Promoting regulatory flexibility and alignment to global norms which will enable the UK to participate fully in global workforce developments. This would involve for example, moving the point of full registration for doctors to the point of graduation at university rather than at the end of Foundation Year 1.

5. Providing support, mentorship and investment for foreign trained health professionals so they are able to learn, train, live and work effectively in the UK.

Conclusions and recommendations

Health, like every other sector, faces great challenges in these uncertain and troubled times. There are remarkable opportunities to address very long-standing problems, update systems, processes and organisations, improve working arrangements and reduce inequalities. There are also unprecedented threats. It is very easy to see how health and care systems could be overwhelmed, health workers put under even greater pressure, and population health suffer.

Health and political leaders have choices about what direction they steer their systems – about what their vision is for health and the sort of roles that they want health workers to play in the future.

Adopting a vision and appropriate policies are only a part of responding to current crises and shaping the future. Even the best vision and policies are worthless without robust implementation as the members of the APPG, co-chaired by a former health minister and a former chief executive of the English NHS, know only too well.

They are, however, the starting point. The next crucial part will be to begin an implementation process which follows the IHI mantra of will, ideas and execution[28]:

- Building the will for change – and gathering the necessary momentum.
- Clarifying the ideas that work – enabling people to see in very practical terms what the future can hold.
- Creating a robust delivery methodology.

The APPG recognises that it is always easy to make recommendations when you are not the people who have to build the will for change, find the resources, and manage the change. This report sets out a direction of travel. Even small steps in this direction will be beneficial and better than standing still, ignoring the problems or going in a direction which ultimately you do not want.

One advantage in this case is that there are many pioneers around the world who are already acting as agents of change and creating and co-creating the future. Part of any government's responsibility must be to get behind them and support them, accelerating change and helping make it coherent and consistent.

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Recommendations

Probable Futures and Radical Possibilities makes fifteen recommendations. Seven are global and addressed to all governments and all countries, seven are specific to the UK, and one is addressed to all health workers.

These recommendations build on current developments and propose a structured approach to change. They start from the understanding that health needs to be seen as an issue for the whole of society, integrated with other concerns and that improving health is essential both for economic prosperity and the quality of life.

These are very big changes and will take time and resources to develop fully. Health workers themselves, however, have a crucial role to play by taking the initiative locally and not waiting for policy to catch up with them. Many, of course, are already doing so – despite the pressures they face – working informally with others inside and outside health services to provide care, prevent disease and create health.

Global recommendations

The report recommends that the governments of all countries:

1. Promote shared actions across society to improve care, prevent disease and create health – and empower health workers to act as agents of change and curators of knowledge who can influence, inform, support, develop and facilitate action by members of the public and organisations in all aspects of health and care.

2. Invest in their own health and care workforce, create more flexible employment conditions, and build strong links with schools and communities to encourage people from all backgrounds to take up roles in health and care – emphasising the important role that people from the poorest and most disadvantaged communities can play.

3. Adopt a model for educating health workers based on the 2010 report *Health Professionals for the 21st Century* which recognises the informative, formative and transformative elements of education and promotes the creation of health professionals as leaders and agents of change and custodians of knowledge.

4. Support the development of global consortia of universities and other bodies to deliver education and training which will secure the quality and consistency of standards across a vastly larger and very mobile global workforce.

5. Work together with global partners to increase massively the supply of health workers being educated and trained and tackle the enormous problems caused by migration from lower income countries to higher income ones and from poorer communities within a country to more affluent ones.

6. Re-commit themselves to the WHO Global Code of Practice on International Recruitment, publish a report on their compliance with it, and work with the WHO to strengthen its application.

7. Plan and prepare for these changes and ensure that all heath workers have sufficient time in the workplace to learn and develop new skills and knowledge as neccessary.

UK recommendations

The seven global recommendations apply equally to the four countries of the UK. In addition, the report recommends seven others focussed on the UK and on the English NHS:

8. The UK Government should agree and implement the recommendations of the Health Education England Review *Framework 15: Shaping the Future Workforce for England* and in doing so set out their vision for the health workforce and health and care systems for the future. It should also commit itself to the publication of regular workforce reviews and plans.

9. The UK Government should work with Universities UK and other bodies to develop plans for promoting the UK's role in the education of health workers in the UK and abroad. These could include leading the development of global consortia of universities and other bodies to deliver education and training.

10. The Government should work with NHS management, universities, the regulators, and the professions to ensure that pre-service and in-service education and training enable the development of the broad-based skills and competencies necessary for meeting the changing health needs of an ageing and diverse population with increasing levels of co-morbidities.

11. NHS England should strengthen leadership in the NHS through building on the ideas of compassionate, collective and inclusive leadership which engages all members of the workforce as well as the report from the Health and Social Care *Leadership Review Leadership for a Collaborative and Inclusive Future*. As part of this, it should specifically foster and invest in clinical leadership.

12. The UK Government should work with regulators and the professions to promote regulatory flexibility and alignment to global norms which will enable the UK to participate fully in global workforce developments. This should involve for example, moving the point of full registration for doctors to the point of graduation at university medical school rather than at the end of Foundation Year 1.

13. NHS England should ensure that there is appropriate support and mentorship for foreign trained health professionals in England and the investment to enable this so that they are able to learn, train, live and work effectively in the UK.

14. The UK Government should adopt the growth and development of the health workforce as a priority for its contribution to international development and make specific commitments to support the growth and development of the health workforce in partner countries. It should maintain and strengthen the many global partnerships – at professional, institution and country levels – to ensure mutual learning and shared development. It should also reinstate the commitment to spend 0.7% of Gross National Income on Overseas Development Aid.

Recommendation for all health workers

It is vital, if this approach is to be successful, that health workers themselves should wherever possible:

15. Take a lead in acting as agents of change within the confines of their existing role to support, influence and enable others to improve, maintain and create health. There are many examples of this already happening including the Beyond Pills campaign mentioned earlier.

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