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MEETING THE ESCALATING DEMANDS FOR HEALTH AND SOCIAL CARE SERVICES OF ELDERLY POPULATIONS IN DEVELOPING COUNTRIES: A STRATEGIC PERSPECTIVE

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ABSTRACT. Population ageing is a phenomenon affecting developed and developing countries alike and represents a major global challenge. This paper is concerned with the impact of ageing populations, in developing countries, on the future provision of health and social care services to the growing elderly population. As well as reviewing previous research and available data, the paper presents the findings of a series of qualitative interviews with policy makers and clinicians in a small number of developing countries in various parts of the world. The paper argues that developing countries cannot expect to see major increases in financial resources available to health and social care for the foreseeable future. Thus, the key issue is establishing how best the available public funding for delivering health and social care services to the elderly can best be used to maximize public value at a time when public services around the world face ongoing austerity measures. The paper focuses on a number of key strategic themes to achieve this which are as follows: the strengthening of public health infrastructure and capabilities; the re-configuration of existing health systems; a stronger focus on elderly medicine as a distinct specialty; a strengthened role for mobile healthcare, particularly in rural areas; the development of models of generic health and social care assistants; the promotion of community based social care; the utilization of appropriate public/private health care partnerships.

Keywords: health; social care; ageing; resources; austerity; public value

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Introduction

A consequence of the combination of medical advances to prolong life in old age coupled with decreasing fertility rates, is that population profiles across the globe are ageing rapidly with greater proportions of a country's population being deemed elderly or very elderly. This represents a major challenge for the world, up there with other challenges such as climate change, poverty and inequality and conflict resolution.

It is well known that this ageing of the population has many implications for a range of public services such as health, social care, pensions, housing, transport etc as well as the economic performance of a country. While the ageing phenomenon affects both developed and developing countries it seems likely that the most serious impacts of ageing populations would be in developing countries without safety nets or adequate legal protection in place for older people.

This paper is concerned with the impact of ageing populations on future health and social care service provision in developing countries. In this context, developing countries are defined as nations with a less developed industrial base, and a low human development index (HDI) relative to other countries (Sullivan and Sheffrin, 2003).

Some commentators try to imply that there is a *direct* link between population ageing and levels of health expenditure (Bloom et al., 2014). While this may or may not be true in developed countries it is argued, in this paper, that, in developing countries, there can be no *direct link* between growing needs for health and social care services (consequent on population ageing) and actual expenditure on such services, since these factors are derived in different ways which will be discussed further below. Thus the thrust of this paper is that what is important is to consider how best the available public funding for delivering health and social care to the elderly can best be used to maximize public value at a time when public services around the world face ongoing austerity measures.

The paper is based on available literature findings coupled with a series of qualitative interviews held with a sample of clinicians and policy makers in developing countries.

The paper is structured as follows:

- Research approach
- The nature of population ageing in developing countries
- The needs for and expenditure on health and social care services for the elderly in developing countries
- Macro-economic and public finance trends
- Research findings
 - *Current health status in developing countries*
 - *Existing health care and social care systems*

- *Demographic trends and their impact on the needs for health and social care services*
- Potential policy developments
- Conclusions.

Research Approach

This paper describes exploratory research concerning health and social care systems for the elderly in developing countries. Although much has been written on the nature of ageing populations in developing countries, little of this takes account of the impact of financial austerity or the policy priorities required in such countries

The paper is basically an interpretive approach based on the views of stakeholders concerning the health and social care systems of their country. It involves a qualitative analysis of the views and opinions with each of the following groups of people in several developing countries:

- **Policy makers** – people in various roles who involved in policy making and planning concerning services for the elderly in their country
- **Clinicians** – people who are in the front line of delivering health and social care services to elderly people in their country

This approach has been adopted because of observations by the authors (and other evidence) that in many countries the policy making process is often divorced from the reality that exists “on the ground” and it is important to check out any such divergences.

The initial aim was to interview one clinician and one policy maker from each of the five countries concerned. In the event, for practical reasons, the interview program had a slightly different form as shown below in table 1.

Table 1 Interviews

| Country | Clinicians | Policy Makers | Total |
|------------|------------|---------------|-------|
| Kenya | 0 | 1 | 1 |
| Uganda | 1 | 1 | 2 |
| India | 2 | 1 | 3 |
| Moldova | 1 | 2 | 3 |
| Kyrgyzstan | 0 | 2 | 2 |
| Total | 4 | 7 | 11 |

All of these countries conform to most definitions of a developing country and in total, 11 interviews were conducted which to a large degree followed the pattern described above with two additional interviews with persons knowledgeable in the field of telemedicine and mobile health care in developing countries. The interviews were transcribed and subsequently analyzed.

The interviews were semi-structured in nature with supplementary questions being asked as required. The main themes covered in the interviews were as follows:

- The main patterns of morbidity and mortality among elderly patients in the country.
- The main difficulties faced by the health and social care systems in dealing with this workload of patients.
- What are seen as the implications of ageing populations in the country for its health and social care services.
- What are seen as the likely resource consequences of these implications and how will they be addressed.
- How might the health and social care system respond to this changing (increasing) workload consequent on ageing.
- Any significant clinical developments being mainstreamed in the future which will have an impact on how elderly patients are treated.
- The resource consequences of these clinical developments being mainstreamed.

Given that only a small number of people in each country were interviewed, the need for confidentiality means that statements cannot be made, about individual countries that have been derived from individual interviewees. Hence, this paper provides a synthesis of views presented in a thematic manner looking for general conclusions and findings under each theme.

Table 2 provides selected data that gives a profile of each of the countries examined in this project. Also shown, for comparison, is the profile of the UK as a developed country.

Table 2 Country data

| | India | Uganda | Kenya | Moldova | Kyrgyzstan | UK |
|--|--------------|---------------|--------------|----------------|-------------------|-----------|
| % population aged 0–14 | 28.0 | 48.5 | 41.6 | 17.9 | 29.9 | 17.4 |
| % population aged 15–64 | 66.0 | 49.5 | 55.6 | 70.5 | 65.1 | 64.9 |
| % population aged 65+ | 6.0 | 2.0 | 2.8 | 11.6 | 5.0 | 17.7 |
| Life expectancy at birth 2013 – Male | 64.7 | 56.7 | 59.9 | 66.2 | 65.7 | 79.0 |
| Life expectancy at birth 2013 – Female | 68.2 | 60.5 | 63.1 | 64.7 | 73.1 | 83.0 |
| Fertility rate | 2.48 | 5.89 | 3.31 | 1.56 | 2.66 | 1.89 |
| GDP per capita \$US 2011–2014 | 5701 | 1771 | 2954 | 4983 | 3322 | 40233 |
| % GDP spent on Health 2011–2015 | 4.7 | 7.2 | 5.7 | 10.3 | 6.5 | 9.1 |

Sources: World Bank, <http://data.worldbank.org/indicator/SH.XPD.TOTL.ZS>

World Health Rankings, <http://www.worldlifeexpectancy.com/country-health-profile>

World Bank, <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>

Thus, it will be seen that this table shows various differences between the individual countries but also significant differences, in many ways, compared to a developed country.

The Nature of Population Ageing in Developing Countries

The conventional approach is to define a person as being elderly once they have passed a certain threshold age which is usually the age of 60 or 65. The UN proposes an age of 60 as being the threshold age for deeming someone elderly (WHO, 2016) and this seems to be the practice applied in most developing countries. In the developed world, a threshold of 65 years is more likely to be the case often being linked to pensionable age. However, in developing countries, the physical condition of many of the population in their 50s is often poor and this can often lead to them being deemed elderly, for practical purposes, prior to reaching the age of 60.

One interviewee said: “We regard people over 50 as being elderly. At this age, in some parts of the country, their health status at this age would be poor. Some people also become grandparents in their 40s and take on the appearance of an older person.”

As well as the numbers of elderly in the population, the overall structure of the population will be impacted by the numbers of births as measured by the fertility rate of a country. Thus, in countries with a relatively high fertility rate the growth in the numbers of elderly people in the population may be offset, to a considerable extent, by the births of younger people. Where the fertility rate is relatively low, this effect will be low and the proportion of the population represented by elderly people will grow as will the age dependency ratio of the population.

In developed countries, major and ongoing developments in medical science have led to significant reductions in later life mortalities. This has produced a situation where a large proportion of the elderly population are living well beyond the age of 65 and into their 70s, 80s, 90s and beyond. Consequently, the term “very elderly” is used to describe people who are 80+ years of age. Indeed, in the UK, the growth in the elderly component of the UK population disguises the fact that the elderly segment of the population is itself ageing. This is shown in the table 3.

Table 3 The ageing of the elderly

| | 2013 | 2020 | 2030 | 2033 |
|----------------------|------|------|------|------|
| Age | % | % | % | % |
| 65–70 | 31 | 27 | 27 | 26 |
| 70–80 | 43 | 45 | 40 | 40 |
| 80–90 | 21 | 21 | 25 | 24 |
| 90–100 | 5 | 6 | 8 | 9 |
| 100 & over | 0 | 0 | 0 | 1 |
| Elderly Total | 100 | 100 | 100 | 100 |

Source: Office for National Statistics

In the UK, it can be seen that those over 80 years of age are becoming an increasing proportion of the elderly segment itself. In developing countries, the numbers falling into the very elderly category are, at present, so small as to be not recognized as a sub-category of the elderly group and this seems likely to be the situation for the foreseeable future.

The needs for and expenditure on health and social care services for the elderly in developing countries

In probably every developing country, some relatively small proportion of health and social care services will be delivered by the private sector and paid for by individuals directly or through some form of insurance. In this situation, we can presume that to some degree market forces will be involved in determining supply, demand and price. Citizens having a need for health and/or social care services, and who have the ability to pay for those services, can, to some extent, expect the private sector to make such services available.

In the publicly funded health and social care sector, it is different. It is well established that an ageing population will generate increased needs for health and social care services Rice and Feldman (1983) writing in a US context encapsulate this as follows: “And since older people tend to have more health problems than younger people, the implications of the ageing of the population on the need for medical care and on public policy are significant.”

Data produced by the UK Office of Health Economics in 1999/2000 indicated large variations in the per capita spend on health services for different age segments of the population. This is summarized in table 4.

Table 4 Health needs of older people

| Age Group | Standardized expenditure (£) per head of population |
|------------------|--|
| Whole population | 1.0 |
| Birth | 5.0 |
| Under 5 | 1.5 |
| 5 to 15 | 0.3 |
| 16 to 44 | 0.6 |
| 45 to 64 | 0.9 |
| 65 to 74 | 1.8 |
| 75 to 84 | 3.2 |
| Over 84 | 5.0 |

Source: Office for health economics

Thus, it can be seen that older people consume vastly greater amounts of health care resources than younger people consequent on greater need.

However, at the outset, it is important to emphasize that there is unlikely to be any *direct* causal link between the rate of ageing of the population in a country, and the level of public expenditure incurred in delivering health and

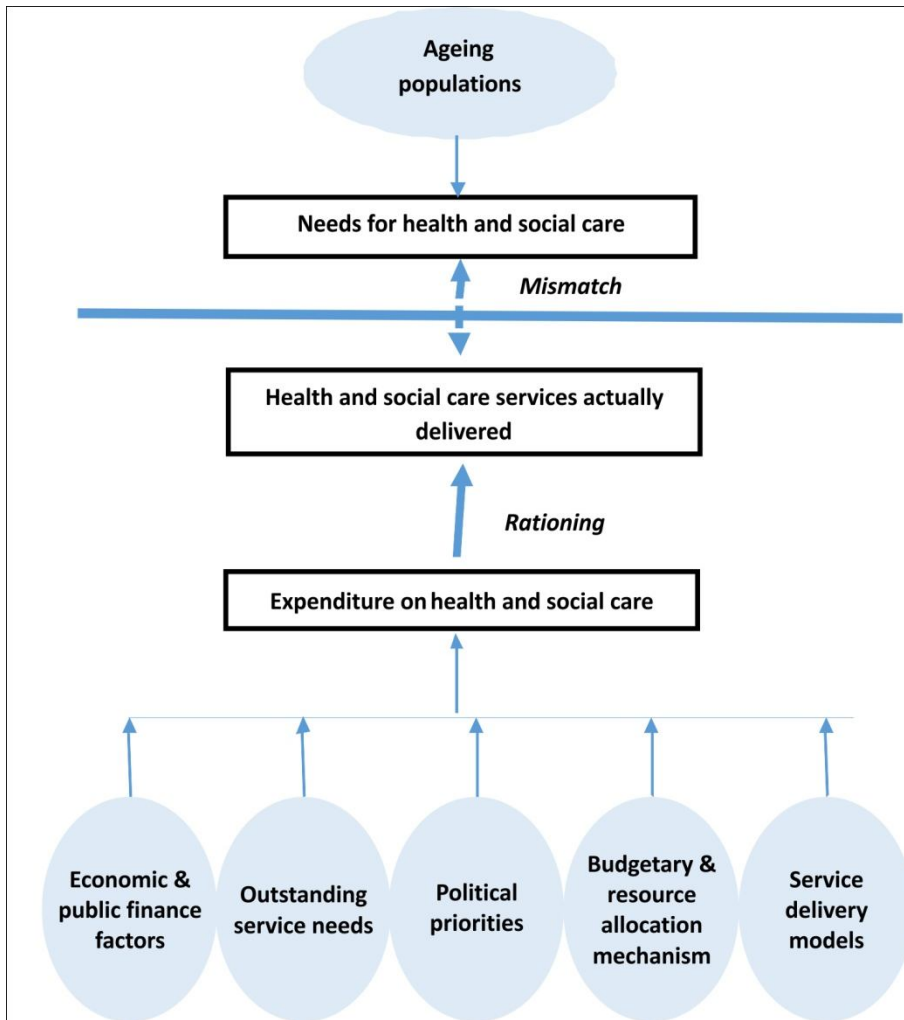
social care services to the elderly in that country. The situation is much more complex and there are two processes at play here:

- ***Ageing and need for health and social care*** – the *biological* process of ageing leads to increased *needs* for health and social care
- ***Resource allocation to health and social care services*** – for publicly funded services, the *political and managerial* process by which governments make funding allocations to health and social care for the purposes of incurring *expenditure* on services.

While the need for services increases consequent on ageing, this need is but one determinant factor in decisions on public funding for health and social care services, albeit an important one. No health and social care system works by identifying the needs for services and the calculating the funding required to meet that need (not least because many will argue that this tends towards the infinite). Instead health and social care systems effectively involve a process of rationing the funds available over the range of needs identified.

While service need is one of the factors to be considered in funding decisions, it is not the only factor in the process. The levels of public expenditure on specific services are derived via a complex political and managerial process, involving many factors (Joyce, Bryzon, and Holder, 2015). The factors which determine spending on public services, in general, and health and social care services for the elderly, in particular, are illustrated in figure 1 and considered below.

Figure 1 Health and social care need and expenditure: The interface



The top half of figure concerns the way in which health and social care need is generated while the bottom half concerns the way in which public expenditure decisions are made and the public services delivered.

Key factors here are:

- **Economic and public finance factors** – There are a range of factors here which will impact on public funding decisions including:
 - Projected growth in GDP
 - Projected tax receipts
 - Government borrowing levels
 - Outstanding public debt
 - Capacity for generating other sources of income etc.

- **Outstanding service needs** – this may be determined in a manner of ways including analysis of data, expert opinion, international comparisons etc.
- **Political priorities** – Governments are faced with many demands for additional public spending on a variety of activities. While outstanding needs are an important factor it is inevitable that priorities will have to be set and choices made.
- **Budgetary and resource allocation mechanism** – Governments have complex mechanisms for setting budgets and allocating resources. Even within specific public sector programs such as health care, these mechanisms will determine the allocation of resources between: specific health services, individual client groups and different areas of a country.
- **Service delivery models** – a key factor in determining public expenditure on a particular service is the service delivery model to be used. For example, in health services, preventative services will have different cost implications compared to curative services. In addition, investment in new services will have different cost implications to continuation of existing services and hospital services will have different implications to community services etc.

Thus, there may only ever be a very loose link between the growth in an ageing population and the financial resources provided for health and social care for the elderly. There is never enough public funding available to meet all of the needs for public services and some form of rationing will always apply. Ultimately, some service needs will be left partially met or completely unmet, either in an explicit manner or, more likely, in an implicit manner.

Indeed, in recent years, in some countries the impact of austerity on public services has meant that increasing need for health and social care services has been coupled with zero, or even negative, growth in financial resources. In developing countries, this has had a knock-on effect in that donor aid receipts might have reduced because of austerity in developed countries (Prowle and Harradine, 2014). In these situations, consideration needs to be given to the way in which existing financial resources are being used and whether their use can be better optimized by changes in the pattern of services.

Macro-economic and public finance trends in these developing countries

Consideration needs to be given to the macro-economic prospects of these countries and the potential for ongoing economic growth in the future. Such economic growth will influence public finances in a country and the likelihood of increased levels of public spending on health and social care.

Below are given summaries of the latest economic outlook for each of the countries studied in this paper with information drawn largely from the World Bank:

- **Moldova** – real GDP grew 4.6% in 2014, but has been subsequently slowing down and may go into recession in 2015. The forecast for 2016 is also less optimistic at 1.5% GDP growth, as main trading partners are expected to recover only gradually, and trade growth with the EU is below the potential. In the longer term, strong reforms in all sectors of the economy are needed to improve the living standards of Moldova's citizens. Major problems in the banking sector may also curtail the economic prospects of the country for many years ahead.

- **Kyrgyzstan** – while significant rates of economic growth have been achieved in recent years, the medium-term growth outlook has become more challenging and the impact of the lower economic growth in Russia will continue to have an adverse impact on domestic consumption and export performance. With such moderate rates of growth, poverty reduction and gains in shared prosperity are likely to be more difficult going forward. Ensuring that growth remains inclusive in the country will require a change in the patterns of growth and an overhaul of the country's social sectors.

- **Kenya** – Kenya is among the fastest growing economies in the East Africa region with predictions of a growth rate of 6% in 2015, rising to 6.6% in 2016 and 7% in 2017. However, this overall positive outlook is not without risks. Tourism has been affected because of concerns about security that has hit economic activities hard, especially in the country's coastal region. In addition, sluggish external demand for exports and declining production is widening the current account deficit. The government budget deficit that was 8% of the country's GDP in 2014 is also a cause for concern. Furthermore, at the moment, the public expenditure priorities of the Kenyan Government for the period are education, security and infrastructure.

- **Uganda** – The country sustained a period of high growth during 1987–2010 with GDP growth averaging 7% per year in the 1990s and the 2000s, making it one of the fastest growing African countries. However, over the past decade, the country has witnessed more economic volatility and gross domestic product (GDP) growth slowed to an average of just about 5%. With the population, continuing to increase at a rate of 3% per annum, the growth in per capita income has decelerated from a rate of 3.6% recorded in the decades of 1990s and 2002, to about 2%.

- **India** – for many years, India has achieved high (by developing country standards) levels of growth in GDP and this has delivered increases in GDP per capita and per capita income. Economic growth over the next few years is expected to be around 7% per annum. However, India has wide variations in income and wealth especially between rural and urban areas and between its 16 states. The country's public budget deficit equates to some 7% of GDP, which is a concern. A major credit rating agency has said "While the country's budgetary performances have strengthened in recent years, hard-

won fiscal improvements could yet unwind because of a financial or commodity shock,” in a report, citing the need to pay out costly subsidies and interest on government debt.

Research findings

The findings from the primary research are discussed under three headings:

- Current health status in developing countries
- Existing health care and social care systems
- Demographic trends and their impact on the needs for health and social care services.

Current health status

From some of the indicators above, we can see that, although there are variations between the countries shown, it is clear that life expectancy in these developing countries is low compared to that of developed countries. Indeed many people in these developing countries do not even live long enough to reach the UN threshold of being deemed elderly at 60 years of age.

Dahlgren and Whitehead (1991) in their seminal work on the determinants of health classified those determinants into five main groups

1. *Age sex and hereditary factors* – These factors are highly significant for health, but are beyond the reach and influence of public health improvement strategies.

2. *Individual lifestyle factors* – factors such as smoking, alcohol and other drug misuse, poor diet, lack of physical activity and sexual behaviors.

3. *Social and community networks* – this refers to family (e.g. parents, children, and partners), friends and the wider social circles. Social and community networks are a protective factor in terms of health.

4. *Living and working conditions* – includes access to and opportunities for: education, training and employment, health, welfare services, housing, public transport and amenities. It also includes facilities like running water and sanitation, and having access to essential goods like food, clothing and fuel.

5. *General socio-economic, cultural and environmental conditions* – represents social, cultural, economic and environmental factors that impact on health and wellbeing and include, for example, wages, disposable income, availability of work, taxation, and prices; fuel, transport, food, clothing

All of the clinicians interviewed were broadly of the view that, in their countries, people who attained the age of 60 were already in a state of poor physical health as a consequence of both their past behaviors and their current living conditions. If we look at the main causes of mortality in the developing countries we see a high propensity of morbidities and mortalities cause by a combination of lifestyle factors (HIV/AIDS, alcohol abuse,

smoking) and mortality rates influenced by environmental factors such as poor sanitation, malnutrition, poor housing etc (table 5).

Table 5 Mortalities and their causes

| Country | East Africa | Eastern Europe | India |
|----------------------------|--|---|---|
| Mortalities | <ul style="list-style-type: none"> • HIV/AIDS • Respiratory diseases • Diarrhoeal diseases • Malnutrition • Malaria | <ul style="list-style-type: none"> • Coronary heart disease • Stroke • Liver disease • Lung disease • Road Traffic Accidents | <ul style="list-style-type: none"> • Coronary heart disease • Lung disease • Stroke • Respiratory diseases • Diarrhoeal diseases |
| Main causal factors | <ul style="list-style-type: none"> • Sexual practices • Poverty • Poor public health | <ul style="list-style-type: none"> • High levels of smoking • High levels of alcohol abuse | <ul style="list-style-type: none"> • High levels of smoking • Poverty |

Source: World Health Rankings, <http://www.worldlifeexpectancy.com/country-health-profile>

This picture contrasts with the developed world where many who attain the age of 65 are usually in quite good health, physically active, still working and with many years of life ahead.

Existing health care and social care systems

Health and social care systems can be seen as comprising a number of specific services, which should, as far as possible be integrated together: These can be categorized as:

- Public health and prevention
- Primary Care
- Hospital care
- Social care
- Community based care – integrated social care and health care.

If we consider the developing countries reviewed as part of this paper, the following important points are pertinent:

Public Health and prevention

The WHO defines public health as being all organized measures (whether public or private) to prevent disease, promote health, and prolong life among the population as a whole (WHO(2)). Its focus is on entire populations, not on individual patients or diseases. Thus, it incorporates such measures as:

- basic public health infrastructure such as good quality water, effective sewage disposal and good housing
- measures to protect the population from disease such as vaccination programs
- actions to promote healthier lifestyles among the population.

Effective public health measures might be regarded as an important part of the health systems of developing countries in view of the levels of mortality and morbidity caused by environmental and lifestyle factors. However, in *all* of the countries surveyed the interviewees took the view that public health systems in their countries show significant weaknesses in terms of organization and funding. However, there are significant variations in standards between the various countries being reviewed and in some countries, the weaknesses being predominantly in the rural areas.

In many ways public health and prevention is often seen as the “poor relation” when compared to the development of hospital and community care. One interviewee commented as follows: “Strengthening public health was seen as a key government priority but the problems of financing were profound especially in relation to primary and secondary care services. Hence, in some parts of the country there are still challenges for many people in accessing clean water and they may have to use river water which is not clean and contains parasitic diseases.”

Hospital Care and Community Care

Every country has some sort of system or framework of health care delivered in a hospital setting and health and social care delivered in a community and/or home based setting with help of primary care practitioners.

Often this framework has evolved over a period of several decades and is not necessarily relevant to the current circumstances. Indeed recent research (Prowle and Harradine, 2014) on a range of health systems suggested that a large majority of countries surveyed believe that their health systems are unsustainable in the longer term and are in need of reform. The same research suggested that there is a high level of resistance to change from many sources including that from public opinion and healthcare professionals.

So it is with this study where the *virtually all* of the interviewees were strongly of the view that their health systems were in urgent need of reform with a bigger shift of emphasis from hospital care to community and home care settings, particularly in relation to the needs of the elderly. However, such changes were often seen as difficult to implement because of resistance from health professionals and a shortage of financial resources needed to facilitate the changes required. One clinician interviewee outlined the position in his country as follows: “Many existing health institutions will have to close as part of the reform process but there is strong resistance to this change from people working there, and others. Also, budgetary constraints mean that health system reorganisation just can’t be implemented.”

Social Care

Social care in many, but not all, of these countries is rudimentary especially in the rural areas. Although in some countries there are a limited number of social care professionals, in other countries great reliance is placed on informal social care for the elderly being delivered by family and friends. However, in some countries, even this traditional family based approach seems to be breaking down for two main reasons

- In countries where there a high levels mortality due to HIV/AIDS, the children of elderly people may already have died from the disease. Consequently, many elderly people have themselves to become carers of their own young grandchildren. This phenomenon seems set to continue.
- We see the movement of large numbers of younger people from rural areas to the urban areas to look for work and also of younger people emigrating to other countries where prospects are better. In both cases, this means a loss of family carers of elderly people. Again, this seems set to continue.

Community based care – service integration

Emphasis is often placed on the need for better integration between the delivery of health care and social care to elderly people in community settings. This is a laudable aim and one that is difficult to achieve fully in developed countries. For example, in the UK alone, attempts have been made over many decades to improve service integration through such measures as joint planning, joint funding, joint training, information sharing etc.

While such integrated working is important, it is difficult to see how it can be improved in some developing countries when existing social care is, often, at best informal and at worst virtually non-existent. What can be said is that in developing future models of community-based care, strong emphasis should be placed on matters such as joint working and service integration, and mechanisms should be used to achieve this aim. Indeed, to some extent, this is already being done in some countries

The role of elderly medicine

In a developed country like the UK, elderly medicine has emerged, over the last few decades as a medical speciality in its own right. As the population ages, there is an increasing need for specialist knowledge in this area of medicine and clearly, this change has taken place because of the growth in the numbers of elderly and very elderly in the population. This situation allows an increased emphasis to be placed on the role of elderly medicine within the health system and for a body of knowledge to be developed.

Health care systems in developing countries are not like this. They do not seem to recognize the role of elderly medicine as a distinctive specialty in its own right and resources for elderly medicine are limited. There are few, if

any, doctors or nurses specializing in elderly medicine and there are there few, if any, dedicated beds or wards in hospitals for the elderly. Occasionally there seems to be a small number of doctors with interests in this area of medicine who are trying to act in a pioneering role.

In addition, quite often, elderly medicine does not form part of the medical education curriculum and so most doctors have, at best, a limited knowledge of what is involved. Neither are there likely to be any professors of elderly medicine in university medical schools. One interviewee expressed this concern as follows: "Community based staff have been largely trained on issues concerning maternal and child healthcare. Health and social care issues concerning older people are just not covered in primary health care training and so the staff cannot help the older people even though they are actually working in that community. Maybe this is because we just do not have the expertise in this country to deliver the training."

Demographic trends and their impact on the needs for health and social care services

Transition of large numbers of middle aged people into the elderly category will increase significantly the absolute numbers of persons deemed elderly in the population of these countries and may also increase the proportion of elderly in the population, depending upon fertility rates which vary greatly between the countries concerned.

The additional needs for the health and social care as a consequence of these increases will depend on three main factors:

- The growth in the numbers of those reaching age 60+
- The health status at the time the age of 60 is reached
- The life expectancy after the age of 60.

There was a *broad consensus* among interviewees that while the numbers aged 60+ would increase there was little optimism that the other two factors would alter significantly in the foreseeable future without some sorts of radical change. One interviewee clinician stated: "We are facing a tsunami of people entering the 60+ age group which is a challenge. However the numbers who will reach the age of 75 to 80 will be relatively few."

The implications of the above seem to imply that while there will be large increases in the numbers of elderly people (60+), there will not be a significant part of the population that becomes described as very elderly in the foreseeable future, which is not the situation on developed countries. Any growth in the numbers of the very elderly will result in even greater needs for health and social care but this seems unlikely to happen in the foreseeable future.

Potential policy developments

In considering potential policy developments for meeting the needs of an elderly population, there are a few contextual points, which have already been discussed but need to be kept in mind.

- ***Population trends and health status*** – there was a strong consensus that while there might be a small amount of upward drift, it was difficult to see, in the foreseeable future (of say the next five years), any significant improvements in health status and life expectancy among that part of the populations relying in publicly funded health care. This is because it is difficult to see any major improvements in relation to the determinants of health status discussed earlier. Consequently, while the numbers of elderly persons in the population of developing countries will increase, it is difficult to see major growth in the very elderly in the foreseeable future.

- ***Health and social care systems*** – in the developing countries researched for this paper some key weaknesses were felt to exist in their health systems with regard to elderly people. One was an undeveloped public health sector, the second was the lack of focus on elderly medicine and the third was the failure to shift services away from the hospital sector and towards community and home settings. With regard to social care, in many countries this is basically rudimentary and informal in nature. In countries where there is a professional social work element, there is, often, a failure of integration with health services.

- ***Rural Areas*** – many developing countries have rural areas where a large proportion of the elderly population resides. In some countries, these rural areas cover vast geographic areas and transportation and communications can be difficult. Aside from this, one of the key difficulties is the unwillingness of service professionals in health, social care and education to reside in these rural areas thus exacerbating the problems of access to care.

- ***Public finances*** – based on what was said in an earlier section it does not seem likely that publicly financed health and social care systems in developing countries can expect major growth in financial resources for the foreseeable future. Indeed, we are now in a situation where the growth in the elderly in the population is likely to outstrip the growth in resources and hence the additional need created cannot be financed through growth in funding as traditionally been the case. Consequently, the primary task of policy makers must be to maximize the public value (Moore, 1995) that can be gained from existing resources by using those resources better. To achieve this may require changes (sometimes significant changes) in the way in which health and social care services for the elderly in a country are organized, funded and delivered. The implementation of such changes may, in themselves, require some level of up-front investment in order to promote the changes needed to produce a better configuration of services for elderly people. As already

noted, it seems highly likely that such changes will be fiercely resisted by many stakeholders (Prowle and Harradine, 2014).

Outlined below are a number of policy developments, which may be considered for applicability to developing countries.

The strengthening of public health infrastructure and capabilities

Investment in public health is often the most cost-effective means of achieving gains in the health status of a population. In many developing countries, and especially in rural areas, one aspect of this could involve investment in public health infrastructure to ensure the provision of clean water, good housing and the safe disposal of sanitation. Elderly people can be very prone to the consequences of poor public health infrastructure and such investment could make substantial improvements to the health of elderly people.

It has already been noted that in many developing countries, some of the main causes of mortality among older people are the consequence of poor lifestyles such as alcohol misuse, smoking, obesity etc. Although not as fashionable as investment in curative services, campaigns to improve lifestyles of the elderly can, if done in an effective manner, deliver big gains in health status (Henriquez-Camacho et al., 2014). However, to be effective, such campaigns require significant investment in resources and the use of specialist skills such as social marketing

The reconfiguration of existing health systems

All interviewees emphasized the need for reconfiguration of their health systems and a shift from hospital care to community care for the elderly. There was also a strongly held view that the pace of reconfiguration was too slow and was being hampered by resistance from health professionals and a shortage of resources. Any major change process involves both significant time commitments and costs of transition (Jick and Peiperl, 2002). Hence, it would be extremely helpful if governments could place a greater focus on delivering this change process to help overcome the resistance by staff in the health system. In addition, there is a need to identify a source of investment funding in the change process in order to speed up the rate of change. This once-off investment in a variety of themes (such as new fixed assets, staff training, relocation costs etc) should deliver long-term changes in the pattern of care for the elderly that would be of great benefit.

A stronger focus on elderly medicine as a distinct specialty

It has already been noted that elderly medicine does not seem to exist, to any great extent, as a discrete medical speciality in the health systems of developing countries in the way it is in developed countries. Clearly it will take a long time for developing countries to get near to the stage of developed

countries but a start has to be made somewhere in view of the increasing numbers of elderly persons that will be in the population of developing countries.

A strengthened role for mobile healthcare, particularly in rural areas

The problems of delivering health and social care to an elderly population living in rural areas have already been discussed and one solution to be considered is that of mobile healthcare. This has emerged in recent years as an application for developing countries stemming from the rapid rise of mobile phone penetration in those countries. Mobile healthcare involves the use of mobile communication devices, such as mobile phones, tablet computers and PDAs, as a means of communication between patients and health care professionals and for the exchange on health related information.

The utilization of mobile healthcare in these rural areas would require

- The provision of access to mobile devices for elderly persons in rural areas.
- Ensuring sufficient connectivity exists between the patients and the health-care setting.
- Resources in the healthcare setting to ensure that healthcare staff have sufficient time and skills to be able to communicate with patients, and respond to their concerns.

To do this may require significant investment but, in rural areas, it has potential as a means of providing greater access to larger segments of an elderly population, as well as improving the capacity of health systems in such countries to provide quality healthcare.

The development of models of generic health and social care assistants

Another approach of relevance to elderly people in rural areas is the development of a system of generic health and social care assistants. These assistants would reside in the rural areas and would provide basic first-level advice, information and some forms of treatment to elderly persons and their families. They would need to be supported by qualified personnel at the nearest health unit to whom reference would need to be made for further advice.

Models like this are already in existence as pilot projects in some developing countries. However, it is not clear that such a patchwork approach is sustainable in the longer term and to achieve sustainability would require some up-front investment to introduce systems of initial training, regulation and ongoing training and development for these assistants. If these items were in place, this may also reduce hostility to such posts from healthcare professionals.

The promotion of community based social care

In some developing countries, various pilot projects are underway concerning the development of community based social care models. These approaches will involve the participation of both healthcare and social care professionals and assistants but also community based volunteer helpers. These projects are seen as being of significant importance for the provision of integrated health and social care services to elderly people residing in rural areas. Once again, however, although these approaches involve the use of volunteers, for them to be successful on a much broader basis, will require up-front investment in training of the volunteers.

The utilization of appropriate public/private health care partnerships

Various models of private-public partnerships have been employed in health systems across the world. Although often criticized, the right PPP approach can be of great benefit. A particular model which has been observed in this project, and which would have relevance to elderly people in rural areas, concerns the establishment of staffed health units in rural areas. Basically, the private company finances the construction of the health unit and provides its equipment. The unit is staffed by employees of the private company who are based at the health unit for a 14 day period of duty followed by 14 days off duty at their home. This approach overcomes the unwillingness of professional staff to reside in the rural areas and avoids some of the restrictive practices found in public sector health systems.

Conclusions

This paper has discussed the health and social care implications of ageing populations. It has argued that in a time of austerity and economic uncertainty it is unlikely that the health and social care systems of developing countries will obtain major increases in financial resources. Consequently, the pressures caused by ageing populations will need to be dealt with on the basis of largely existing resource levels.

However, health and social care expenditure, as well as being influenced by need, is also influenced by the various models of health and social care being used. Thus, the paper focuses on the need to change the pattern of health and social care delivery in developing countries to optimize the delivery of services to the elderly. The focus here must be on making changes which improve the level of public value rather than “eye catching” prestige developments that influence voter opinion but have limited impact. However, achieving these changes will not be easy and will require significant levels of up-front investment if the process of change is not to stall.

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