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Economics, Demands and Financial Considerations in Primary Care

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ABSTRACT

Since the Declaration of the Alma-Ata in 1978, primary care is considered by governments, service providers, health managers, health economists and academics cost effective in health promotion, disease prevention, long-term care, health education, monitoring of chronic conditions and self-management of such long-term illnesses, compared to the more resources and manpower-intensive secondary and tertiary, hospital-based care in all health care systems. However, the economics of the wider society and the political wills of the governments and politicians shall drive and shape the care delivery model and the funding of the three levels of care, namely primary, secondary and tertiary. Sound economies provide financial drive to shift from tertiary care to primary care. There are other non-economic nor-political attributes of the care delivery model and health reforms. Nonetheless, the adopted model will have impacts on the financing, accessibility, sustainability and services of the health care system. Likewise, demands and wants for health care vary with places in terms of social characteristics and development, culture, historical background, politics, epidemiology of diseases, community expectations and manpower supply. Therefore, financial considerations in primary health care are important in any health care, political and social systems, in the perspectives of provision of care, access to services, professional standards and quality, as well as effectiveness of the care delivery model.

KEYWORDS: health care financing, financial models, care provision, accessibility, quality of care, performance, professional standards

1 INTRODUCTION

Since the Declaration of the Alma-Ata in 1978, primary health care is considered by governments, service providers, health care managers, health economists and academics cost effective in health promotion, disease prevention, long-term care, health education, monitoring of chronic conditions and self-management of long-term illnesses, compared to the more resources and manpower-intensive secondary and tertiary, and hospital-based care. Sound economies provide financial drive to strengthen primary care service, while other non-economic non-political attributes of the care delivery model and health reforms prevail in the health care systems. Ultimately the adopted model will have impacts on the financing, provision, delivery, accessibility, sustainability of services in the health care systems.

2 ECONOMICS IN HEALTH CARE

Economics of the wider society and the political wills of the governments and politicians shall drive and shape the care delivery model and the funding of the three levels of care, namely primary, secondary and tertiary in the health care system, which has at least two interacting arms: service provision and financing.

In the health care market, patients are the consumers and the providers (doctors, nurses, dentists, etc.) are the service producers. They all do not behave as in the general economic model, making the market complicated in the analysis of their interactions. Third parties are often presented. These include the payers such as the insurers and, in many countries, the governments, who also play the roles of legislators, regulators and quality assurance. There are also other third parties like the family members, the general public and commentators, who often have an interest in the outcomes of the services and how they are delivered. In general, patients, being lay persons, often do not know what really should be provided in the care although they often consider that they need certain care, which they are in no position to evaluate the appropriateness and consequences of treatment or no treatment.

On the financing side, health care service providers are often paid by the governments, or national, social or private health insurances in many countries and societies. The out of pocket payment usually constitutes a low percentage, perhaps with the exception of places like Hong Kong where insurance coverage in the population is low and people pay directly to the providers. Moreover, market economy is not adopted in health care systems. The rules of payments and scope of services being provided are made by the governments and insurers. They control the market, including appointment of designated or preferred providers, and have the power to determine the share of the health dollars in their role of financing organisations in the system. Unfortunately, the allocation of resources is highly inefficient and often not matching the needs of the community, resulting in many undesirable and inequitable outcomes.

Non-financial considerations

Health care is a very expensive business and health care systems are very complicated. Services are heavily labour-intensive, carried out by highly trained and specialised professionals from different discipline of expertise, who are supported by different semi-professional and technical staff, and advanced equipment and technology. The services are not directed solely by the professionals or financing capacity of the society, but are often driven by political and social determinants, particularly in the quantity and quality of care to the community.

Uncertainty is an integral characteristic in health care. There are always risks to consider and to take by both the patients and providers because the development and progress of any clinical conditions cannot be totally predicted with confidence, and the treatment results can vary so

much among individuals even by the same providers, no matter how experienced they are. Normally informed, educated or calculated choices are made by both parties, including the families, among treatment options. The risks arising from uncertainty can be minimised through the approaches and wide adoption of evidence-based medicine incorporating vigorous and sound research, public education on health and related issues, training of providers in structured and appropriate basic and continuing education and development, and the continuing quality improvement in the services and delivery system, with minimal political influences.

Social justice is often a concern in health care, more so in public health as well as the sociologists and human right organisations. This issue is preferred not to be discussed in the context of public policy. It is about values of the people, equity of care provision and access to services. In Hong Kong, the Government has a long-standing commitment to “provide lifelong holistic health care to every citizen of Hong Kong, and to ensure that no one is denied adequate medical treatment due to lack of means” (Food and Health Bureau, n.d.). The entitlement is heavily subsidised and universal to all residents, including foreign workers on temporary visas. Accessibility, affordability, and equitability of care is ensured without any means test. Important issues of financial sustainability and quality of care have been on the public, political and government agenda for decades. Over ten major review and consultation papers on health reform have been commissioned by the Hong Kong Government of the Special Administrative Region (SAR) since 1974. The voluntary health insurance scheme (VHIS), embedded with tax incentives and shift of reimbursement, is the latest social health initiative implemented, mainly for risk pooling for the expensive hospital services, not primary care (Voluntary Health Insurance Scheme, n.d.; Gain Mile, 2019; Ng, Fong & Kwong, 2019).

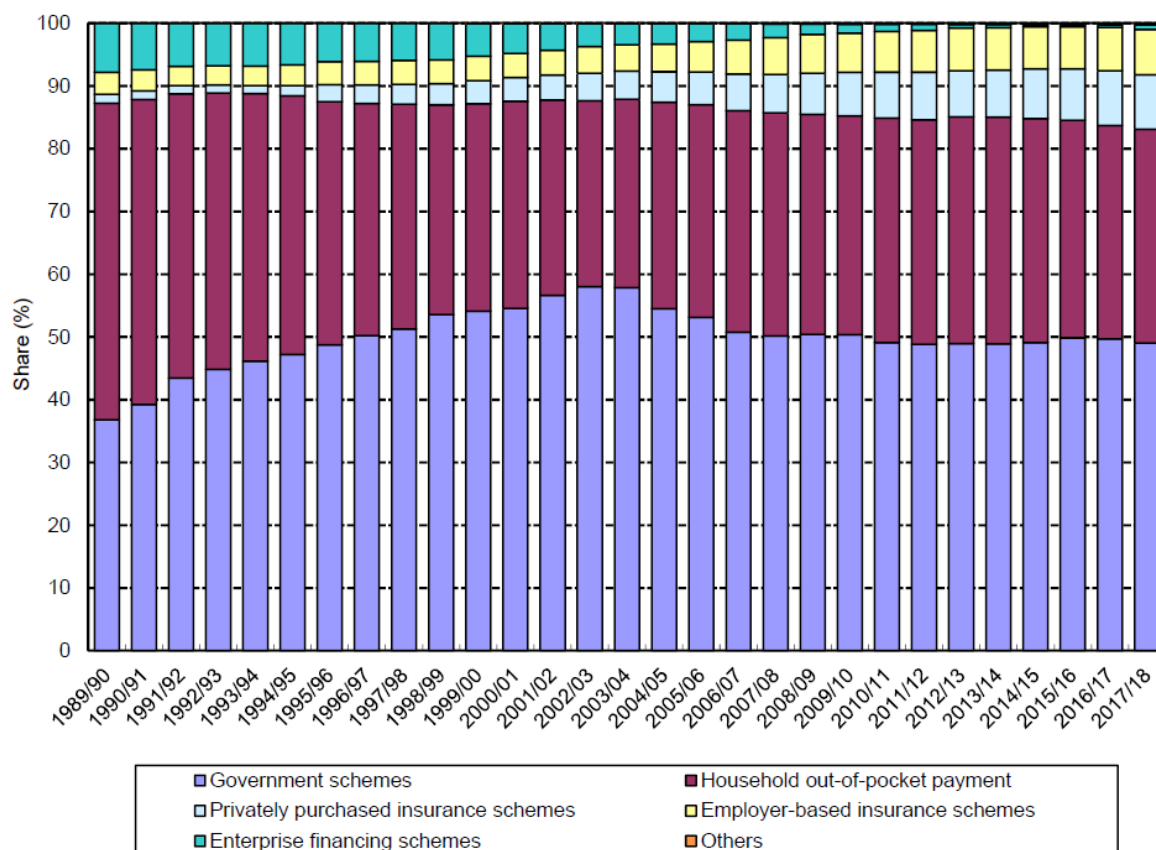
3 FINANCIAL MODELS

No financing arrangement in health alone is a perfect solution to the health care system. This is more obvious when societies worldwide are getting complex and pluralistic. A single source or model of health care financing is inadequate to cater for the diversified needs in health care. Pluralistic models are common in many health systems.

Tax-Based Model

Funding of services is predominantly through taxation from general government revenue. The government allocates funds to its health department or a health authority, which will manage and deliver highly subsidised health care services to the entitled people in the public sector. This is case in Hong Kong where the Government has been relying heavily on income tax, corporate profit tax, and indirect taxes. The share of such public funding in health care, 17% of the total recurrent budget, is about 50% of the overall total 5.7% Gross Domestic Products (GDP) expenditure. Most of the Government’s fund is spent on the expensive public hospital services (Exhibit 1). This has been the same over three decades, making Hong Kong among the “cheapest” health system to run in the world. The remaining half of the revenue comes from out-of-pocket payments by individuals, their employers or families, and private insurance plans (McKenna et al., 2017; Ng, Fong & Kwong, 2019).

Exhibit 1. Share of health expenditure in Hong Kong



Source: Food and Health Bureau. (2019). Statistics. Retrieved from https://www.fhb.gov.hk/statistics/download/dha/en/figure2_1718.pdf

United Kingdom and Sweden have also adopted this model, which has the advantages of low operating costs and equal access to the subsidised services. There are also disadvantages of such tax-based financing systems since the availability of funds is highly dependent on the performance of the local economy, and there are competition from other community services for taxation funds, and not infrequently, difficulties in raising taxes to meet the ever-increasing demand for services, arising particularly from the increasing global trend of ageing, and the escalating costs of services resulting from the advancement of health technology and professional development. Furthermore, publicly funded services are intrinsically not consumer-oriented by its very nature, though everyone agrees and expects that they can do better in serving the community (Health Care Study Group, 2007).

Social Health Insurance Model

These are mandatory contributory schemes with universal coverage and community rating, in which the contribution is not associated with the health status of participants. All working people are required to contribute a percentage of their income to a health insurance fund set up by the government, usually with employers also contributing. The fund is commonly administered by a statutory body or government department. Such model exists in Australia, Japan, Taiwan, South Korea, Germany, Canada, Netherlands and Switzerland. In some systems, private insurance organisations also participate in the fund and together pay the public and private service providers (Health Care Study Group, 2007).

Most funds pay providers on a “money follows patients” basis with a high degree of financial transparency related to the sources and uses of funds. Raising contribution premiums, when deemed necessary, is relatively easier than imposing additional taxes. Furthermore, services in this model are responsive to the needs of the consumers. However, the administration costs are high because of the collection and disbursement of funds. Moral hazards arise from unnecessary utilisation or provision of services (McKenna et al., 2017).

Medicare in Australian was established in 1983 and has helped to make Australian health care among the best in the world. However, a recent review has identified two problems in the system: (i) resource allocation and (ii) performance and patient outcomes improvements. Moreover, ageing population is one of the challenges faced by countries using the social health insurance model in that the premium paid by the “shrinking” workforce becomes insufficient (Ikegami et al., 2011). An interdisciplinary research approach has been proposed to solve them with the design of new performance measurement models, incorporating financial performance, quality, and patient care outcomes. The organisation of public health care, role of public hospitals, reimbursement method, freedom of choice to users and the appropriateness of care should be evaluated (Dixit & Sambasivan, 2018; Mossialos et al., 2017).

Voluntary Private Health Insurance Model

Private health insurance is not compulsory. Individuals or groups, usually employers, subscribe to such schemes on a voluntary basis. The level of premium depends on the benefits covered and the health status of the insured, commonly known as experience rating, in which the old and sick would pay higher premium or be excluded. The United States is known to be the only country to finance the health services by private insurance, where most of the working population have insurance coverage from employment. On the other hand, there are two tax-funded schemes in US, the Medicaid and the Medicare, to pay for the health services for low income earners and the elderly. Private insurance allows choice of plans and providers such as doctors in the private sector, private hospitals and flexibility in appointments of consultations, particularly for non-urgent conditions. The services are consumer-oriented. But administration costs are very high under this model, which has potentially more unnecessary utilisation, abuse and even frauds (McKenna et al., 2017).

Private health insurance also plays an important role in Australia and Hong Kong as an alternative or supplementary coverage. In Australia, private health insurance is voluntary but regulated, with community rating and financial incentives. Policy holders get 30 percent rebate on their compulsory national health insurance levy. In Hong Kong, private health insurance accounted for 15% of total health expenditure in 2011 and covered about 30% of the population (Food and Health Bureau, 2014). The introduction of the voluntary health insurance scheme by the Hong Kong SAR Government has aimed the balance of the public-private healthcare sectors, addressing the issues of accessibility and continuity of individual hospital insurance, quality, transparency and certainty of insurance protection, including guaranteed renewal, no 'lifetime benefit limit', coverage of hospitalisation and prescribed ambulatory procedures, coverage of prescribed advanced diagnostic imaging tests and non-surgical cancer treatments. The Government has made diligent negotiation with the insurance industry on standardised policy terms and conditions, premium transparency, minimum benefit limits, cost-sharing restrictions and coverage of pre-existing conditions (Hong Kong SAR Government, 2017).

Medical Savings Model

Medical savings model, or medical savings accounts (MSAs) as it is more commonly referred to, is relatively new. It aims to address the ageing population and the intergeneration equity

question. Individual savings accounts are created for contributions or savings to accumulate over time, in preparation for medical needs after retirement. This helps pooling financial risk by taking the pool of funds over the years for individuals. The contribution is compulsory as in the case of Singapore, where MSA has been so successfully implemented. It has become a model for demonstration to other countries like China, South Africa, and the United States (Health Care Study Group, 2007).

MSAs allow enrollees to withdraw savings from earmarked funds to pay for health care in out-of-pocket payments and a high-deductible insurance plan. This model is widely acceptable as the contributions stay in the account, from which participants can use or spend on health care judiciously, but this model is not a total solution on its own. There is a lack of adequate funds in the early years, particularly when an individual suffers from major illnesses. There are also high administrative costs in the collection of contributions, fund management and disbursement. A recent study has found that MSA schemes have not been efficient or equitable, and have not shown enough financial protection as expected (Wouters et al., 2016). Furthermore, the MSA with higher levels of balance may indicate the possibility of unnecessary and extra utilisation of health care resources because the enrollees intend to pay for the service and have not planned to save for future use (Zhang & Yuen, 2016).

4 DEMAND AND SUPPLY IN HEALTH CARE

Demands and wants for health care vary with geographical places in terms of social characteristics and development, culture, historical background, politics, epidemiology of diseases, community expectations and manpower supply. The World Health Organization (WHO) has the statement of “*The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition*”, which has been central to WHO’s identity and mandate in promoting universal health coverage and access to the health services, without suffering financial hardship. People-centred care helps individuals to have self-control of the body and own health with dignity and respect, but not inequality. Discrimination of any kind is always a barrier to development of any programme and thus no one should be marginalised or stigmatised in health care. Everyone should be encouraged to be active participants in one’s own care to enjoy the benefits of good health, no matter their age, sex, race, religion, health status, disability, sexual orientation, gender identity or migration status (Ghebreyesus, 2017). All governments play a big and major role in the health care systems because health care is viewed as a human right.

People do not demand or buy a good or service because it costs too much, or the individual simply cannot afford it. The decision is not related to the outcome or social injustice, and goes beyond the scope of economics, particularly when the larger community is concerned. These individuals will simply opt for an alternative or do without the good or service, if it is something not considered as essential. When the people cannot afford health care services because of the costs, the government is obliged and has the social duty to meet the demand, commonly financed by taxes. Moreover, accessibility, quantity and quality of health care services are important for a nation or community, which should be regularly estimated and evaluated for future demand and supply of healthcare services. Services and manpower can thus be better planned and developed to meet the change in demand and mode of care. In addition, appropriate course of action can be recommended to optimise resource allocation for a healthy public policy (Doi et al., 2017).

The supply of health care resources, including manpower and facilities, are often provided in a mixed mode in most countries and societies. In the United States, most people have private health insurance, often through their employment, and depend predominantly on the supply of health care by the private sector. The government still has an apparent presence, with Medicare covers for those 65 and older and Medicaid for the poor. The Veterans Health Administration provides health care to former members of the military. The Affordable Care Act regulates the market and looks after the lower-income households with subsidies. It reflects that the public healthcare resource allocation can cover the greatest number of vulnerable people with greatest amount of good and service (Kluge, 2007). However, overreliance on the public sector leads to lack of availability of supplies and long waiting time of the services. On the other hand, private healthcare sector allows people to have more options on choosing their preferred resources but it tends to serve the higher socioeconomic groups because of the charges (Basu et al., 2012). Hence, the dual track healthcare system, which combines public and private sectors, can fulfil the complementary needs and demands, and has been demonstrated to work really well in Hong Kong (Ko, 2013).

5 FINANCIAL CONSIDERATIONS IN PRIMARY HEALTH CARE

Financial considerations in primary health care are important in any health care, political and social systems, in the perspectives of provision of care, access to services, professional standards and quality, as well as effectiveness of the care delivery model. Without health, people cannot do anything, leading to significant and adverse economic consequences for the society.

Provision of Care and Access to Services

Provision of care and access to services in primary care are governed by some rules in the health care market, which is closely related to health insurance and third party payers like the government. Services are often not paid directly by the users, who pay a premium to insurance or tax. The insurer or government uses the money to compensate the service providers. There are three sets of rules in the process of operations, namely financing, access and payment. Financing determines who pays for the insurance or tax, and how much they need to pay. Often, the government, through public policy, regulate the market for private insurance by setting limits on charges based on age, sex, and pre-existing conditions. With respect to access, there are rules to ration the utilisation of services based on estimated costs and benefits to avoid overuse by the consumers. Market prices are no longer giving the users the right signals about how to allocate scarce resources because of the inelastic nature in health care. Furthermore, list of panel doctors or preferred providers limits free choice, and thus access, for the patients. Rules on payments determines what services an insurer or the government will pay for and how much they will pay. Providers cannot offer patients the treatments that insurers consider being too expensive, too experimental, or insufficiently valuable to pay for, such as cosmetic procedures. All the three sets of rules are related and steer the model of care delivery. They are set by public policy as in UK or by the insurance industry in the case of USA.

Provision of primary care can be classified into models. In the integrated community model, providers have the comprehensive responsibility with the objective to support multidisciplinary care-giving teams to provide a broad range of medical, social and community services. The professional co-ordination model allows the population to choose with payment to providers, and the care-giving team consists of doctors and nurses. Professional contact model involves family doctors practicing alone or in small groups. There is limited association with other health care professionals. In general, the professional models outperform the integrated community model with regards to accessibility and responsiveness of services. Combining

professional co-ordination model and the integrated community model is proposed to achieve a more ideal model (Anell, 2011).

In a number of countries and regions like Australia and Hong Kong, it has been a long-time and normal practice for primary care is to be provided by private doctors, commonly known as General Practitioners (GPs) and Family Doctors. They practice either alone in solo practices or work in partnership, and even large groups or chains, that are listed in the local or international stock market. People consult GPs for minor ailments, common health and psychosocial problem, long-term medications, clinic procedures, and obtaining referrals to see the specialists. They pay the doctors or the clinics either by out of their own pocket, individual's insurance cover, or group medical plan as employees' benefits. Payments are often based on the nature and volume of doctor visits and services. There may be bulk discount as in the case of group medical plans, and sometimes with a fixed risk-adjusted payment for designated groups of patients (Lamarche et al., 2003). In Australia, nearly all private doctors are reimbursed by the bulk billing arrangement of Medicare. They are paid 85% of the schedule fees directly by Medicare. This has saved the users from going through the process claiming back 85% of the expenses from Medicare. In bulk billing, the providers forfeit 15% of the charges. This arrangement has been working extremely well over the years since the early days of Medicare introduced in 1983 (Mossialos et al., 2017).

The traditional model of primary care in Sweden and United Kingdom is focused on publicly owned health centres that are staffed by multidisciplinary teams to serve the population within a geographical area within budgets according to the enrolled subscribers. Service providers in county councils have a fundholding responsibility for primary care, irrespective of where the services are consumed. Hence a provider may have to pay other service providers if subscribers so decide to choose not to stay with those they are registered. Some reforms in primary care were started in Sweden in 2007 to strengthen the role and provision of primary care, and to solve problems related to poor access and responsiveness. More choices for the population and privatisation were initiated with the aims to improve performance, access and responsiveness of the services and to have 80% of all outpatient services being provided by primary care. This was regarded as rather ambitious in Swedish because the gate-keeping role of primary care had been limited. Hospitals were responsible for a significant share of outpatient visits. Subsequently there was freedom for accredited private service providers to set up primary care in five services, namely family doctor services, child health care, maternity care, foot care and speech therapy (Anell, 2011).

In Hong Kong, the dual track public and private system, which is unique in the world, has been working very well in term of low financial input, excellent outcome with the longest life span and universal accessibility (Ko, 2013). 70 percent of all clinic consultations, mostly primary health care, are provided by GPs in the private sector. The services are mostly clinical and acute, not focusing on prevention. Public general outpatient clinics, mostly in public hospitals, are responsible for about 15 percent of all outpatient consultations at a highly subsidised rate to those with low income or with chronic conditions. The remaining 15 percent of are provided by private practitioners of alternative medicine, mainly Chinese medicine practitioners. Out-of-pocket payments constitute around 75 percent of outpatient expenditure, with the remaining financed by employers or insurance. Overall, money spent on private health care services is around 50 percent of the total health care expenditure (Health Care Study Group, 2007; Ng, Fong & Kwong, 2019). There is an overdue need to strengthen the provision primary care. A think tank has proposed some reform initiatives. Holistic primary health care should be delivered by integrated multidisciplinary teams in community-wide networks. Health screening

during the life course of adults should be funded by the Government based on evidence and professional consensus by experts. Development of an integrated and seamless primary and secondary care, supported by mobile electronic medical records, will allow primary care to be effective and to facilitate users to access appropriate care, particularly in the management of chronic conditions (Health Care Study Group, 2007).

In UK, the government has created a market mechanism in primary care in which primary care trusts are empowered to negotiate with private companies, which in turn contracted with the GPs, who are no longer contracted directly with the NHS. Monopoly of the provision of primary care by the GPs with integrated and comprehensive services since the founding of NHS in 1948 no longer exists. GPs become partners in a practice; employees of practices, trusts, or corporations; directors or shareholders of commercial companies; or subcontractors. Their professional control over the range and provision of primary care, as well as professional autonomy, is much reduced, while the contractors have the duty to provide and manage the services appropriate to meet the reasonable needs of the patients. The new contract has also separated out primary care into essential services, the minimum that must be provided, additional services, such as screening and immunisation, and enhanced services, including management of chronic conditions and minor surgery. Contracting companies may pick and choose the services to provide. The reform has changed the basis of government control and mechanisms of public accountability in primary care (Pollock et al., 2007).

Professional Standards and Quality

Professional autonomy is advocated by most professions. Primary care professionals, particularly doctors, are committed to serve the community with standard and quality. In addition to government regulations, health care professions monitor members, by accrediting university programmes at medical schools, promoting best practices, and establishing professional norms of behaviour. The Medical Council of Hong Kong (2016) has issued the Code of Professional Conduct and sets out the professional conduct and responsibilities. The Nursing Council of Hong Kong (2015) has published the Code of Ethics and Professional Conduct for Nurses in Hong Kong and prescribes professional nursing standards and ethics. The key emphasis is on the best interest of patients, not on the provider's personal gain. Trust is of utmost importance and is fostered by good long-term doctor patient relationship built on satisfactory consultations without any suspicions of economic motive of self-interest on the part of the provider. Quality assurance mechanisms of service providers are carried out through clinical or practice audit, which can be self-audit, peer audit or audit by an accredited organisation (Health Care Study Group, 2007).

Consumers are not in a position to judge the quality of products or services they are buying. This is particularly obvious in health care. People just do not know what the best treatment is or even if the management is the right one. Therefore, they rely on the advice of doctors and primary care providers. It is natural that they are more willing to trust providers or institutions with reputation, especially clinics not set up primarily for profit making. In most parts of the world, various regulations and guidelines, either by governments, health care institutes or the professions, are established to monitor the quality of care. The local authorities require doctors, dentists, nurses, allied health and other health professionals to have licenses to practice under prescribed conditions, and in some places, such as China, within geographic boundaries. The licenses are granted only after the licensee has attended an accredited programme in approved colleges or universities, and has passed rigorous tests.

When professional regulation and direct government control are changed to commercial contracting mechanism of the market in the case of the NHS in UK, it is no longer feasible to monitor professional standards and quality based on regulation of market forces through the effective use of competition and healthy competition between different services users, as proposed by the Department of Health. What make it worse is that quality regulations do not apply to all providers. The primary care trusts are responsible for service quality through the quality and outcomes framework. Moreover, contractors can also hold the NHS budget for acute hospital care and community services, making them both the gatekeepers to and budget holders for services (Pollock et al., 2007).

Effectiveness of the Care Delivery Model

No delivery model is ideal or perfect. Often blended payment models can support the ideal features of a primary care practice (PCP). These models enable PCPs to become higher-performing as far as quality of care and cost benefits, while setting satisfying and comfortable work environment for doctors. In general, efficient health care delivery system must integrate medical treatments, preventive care, promotion of healthy lifestyle, and long-term care, in the provision of timely and effective health care and with sufficient contact time between doctors and patients. Continuing education of staff should be encouraged or even mandatory. On the other hand, an efficient health care financing system must encourage users to seek necessary service and preventive care. Affordability and accessibility of care are ensured while morale hazard and frauds as well as unnecessary usages are discouraged.

In GP contract reform, the UK government has moved away from direct government control and professional regulations to a system, where commercial contracts awarded to competing providers in the market, as the government's preferred model of subsidised primary care. Public accountability is in question because it is unclear how primary care trusts can influence the market mechanism, although the Department of Health has made the management of financial performance the responsibility of the owners of the contracts. It has been found that majority of contract terms of the complex services are drawn up by contractors not by commissioners, who do not have the ability to draw contract terms in sufficient detail to meet all contingencies. The government has the belief that competition with more companies participating will improve the services. Nonetheless the consequences for access, costs, quality, and accountability are in question without the evaluation of the policy (Pollock et al., 2007). In the case of Hong Kong, it is noted that there is a significant service gap in primary health care. This needs to be addressed and studied systematically to find an effective care delivery model with practical and innovative solutions, and with a focus on humanistic, holistic and integrated care, as the way forward (Ng, Fong & Kwong, 2019).

6 CONCLUSION

The allocation of resources has important implications on health care quality. It is interesting to note that the traditional delivery model of a hospital is the 'hub' of care, with a single centralized facility providing all facets of disease management and treatment, including routine eye examinations and high blood pressure management. Early developed hospitals had both shocking and humble origins as shelters catered for mad people in custody and for the poor who could not even afford to receive care at home. Over the centuries, hospitals are owned or operated by the government, charitable bodies, private companies or multinational enterprise. They have evolved into large, expensive, technology-laden, professional-intensive organisations in the health care systems and taken on many different roles in teaching, training, research and academic advancement. However, relying on tertiary services at hospitals are expensive and the delivery of quality care is questionable.

Every community or district has a general hospital. With changes in health care delivery and the surging of digital, mobile and virtual health, applications of advanced technology have grown deep into the community at all levels, including Internet-of-Things and health promoting applications in smart phones. The movement of acute-centric hospital care into the outpatient environment in the community is possible, allowing opportunities to drive tertiary and secondary services from the large and complex hospitals to smaller, convenient, cost-effective primary care centres, in which health care is accessible, affordable, and much closer to home (Wiler, Harish, & Zane, 2017). Strong PCPs are found to be beneficial to the health status of population with lowering the length of hospitalisation, mortality rates as well as enhancing the life expectancy (Shi, 2012). PCPs can provide personal, comprehensive and continuing care to individuals and their families by well trained professionals, including family doctors, community dentists, Chinese medicine doctors, community or public health nurses, community pharmacists, allied health professionals, and community health practitioners. Likewise, GPs should have a gatekeeping role in PCPs for authorising the access of specialists so as to optimise the utilisation of primary, secondary and tertiary care (Stevens, 2010). Ultimately, financial shifting from tertiary care to primary care is essential and vital for the development and sustainability of the health care system.

REFERENCES

- Anell, A. (2011). Choice and privatisation in Swedish primary care. *Health Economics, Policy and Law*, 6(4), 549-569.
- Basu, S., Andrews, J., Kishore, S., Panjabi, R., & Stuckler, D. (2012). Comparative performance of private and public healthcare systems in low-and middle-income countries: a systematic review. *PLoS medicine*, 9(6), e1001244.
- Dixit, S. K. & Sambasivan, M. (2018). A review of the Australian healthcare system: A policy perspective. *SAGE Open Med*, 6: 2050312118769211.
- Doi, S., Ide, H., Takeuchi, K., Fujita, S., & Takabayashi, K. (2017). Estimation and Evaluation of Future Demand and Supply of Healthcare Services Based on a Patient Access Area Model. *International journal of environmental research and public health*, 14(11), 1367. doi: 10.3390/ijerph14111367
- Food and Health Bureau. (n.d.). *Overview of the Health Care System in Hong Kong*. Retrieved from <https://www.gov.hk/en/residents/health/hosp/overview.htm>
- Food and Health Bureau. (2014). *Consultation Document - Voluntary Health Insurance Scheme*. Retrieved from https://www.vhis.gov.hk/doc/en/information_centre/consultation_full_eng.pdf
- Gain Miles. (2019). *Gain Miles Health Forum 2019*. Retrieved from <http://www.gainmiles.com.hk/events/healthforum2019/>
- Ghebreyesus, T. A. (2017) *Health is a fundamental human right*. Retrieved from <https://www.who.int/mediacentre/news/statements/fundamental-human-right/en/>
- Health Care Study Group. (2007). *Development and Financing of Hong Kong's Future Health Care - Final Report*. The Bauhinia Foundation Research Centre; Hong Kong.
- Hong Kong SAR Government. (2017) *Government releases Consultation Report on Voluntary Health Insurance Scheme*. Retrieved from <http://www.info.gov.hk/gia/general/201701/09/P2017010900608.htm>
- Ikegami, N., Yoo, B. K., Hashimoto, H., Matsumoto, M., Ogata, H., Babazono, A., Watanabe, R., Shibuya, K., Yang, B. M., Reich, M. R., & Kobayashi, Y. (2011). Japanese universal health coverage: evolution, achievements, and challenges. *The Lancet*, 378(9796), 1106-1115.
- Kluge, E. H. W. (2007). Resource allocation in healthcare: implications of models of medicine as a profession. *Medscape General Medicine*, 9(1), 57.
- Ko, W. M. (2013). *Speech by the Secretary for Food and Health, Dr Ko Wing-man, at the Asian Ministers panel discussion session of the World Health Summit Regional Meeting - Asia in Singapore*. Retrieved from https://www.fhb.gov.hk/en/press_and_publications/speech/2013/sp130409.htm

- Lamarche, P. A., Beaulieu, M., Pineault, R., Contandriopoulos, A., Denis, J., & Haggerty, J. (2003). *Choices for Change: The Path for Restructuring Primary Healthcare Services in Canada*. Ottawa: Canadian Health Services Research Foundation.
- McKenna, H., Dunn, P., Northern, E., & Buckley, T. (2017). *How health care is fund*. Retrieved from <https://www.kingsfund.org.uk/publications/how-health-care-is-funded>
- Mossialos, E., Djordjevic, A., Osborn, R., & Sarnak, D. (2017). *International Profiles of Health Care Systems*. Retrieved from https://www.commonwealthfund.org/sites/default/files/documents/___media_files_publications_fund_report_2017_may_mossialos_intl_profiles_v5.pdf
- Ng, T. K. C., Fong, B. Y. F. & Kwong, C. K. Y. (2019). Transition of hospital acute-centric to long term care in an ageing population in Hong Kong - Is it an issue of service gap? *Asia-Pacific Journal of Health Management*, 14(1),11-15. doi.org/10.24083/apjhm.v14i1.207.
- Pollock, A. M., Price, D., Viebrock, E., Miller, E., & Watt, G. (2007). The market in primary care. *BMJ*, 335(7618), 475–477. doi: 10.1136/bmj.39303.425359.AD
- Robinson, J. C. (2001). Theory and practice in the design of physician payment incentives. *The Milbank Quarterly*, 79(2), 149–177.
- Shi, L. (2012). The impact of primary care: a focused review. *Scientifica*, 2012.
- Stevens, F. (2010). The convergence and divergence of modern health care systems. In *The new Blackwell companion to medical sociology* (pp. 434-454). Blackwell Publishers.
- The Medical Council of Hong Kong. (2016). *Code of Professional Conduct*. Retrieved from https://www.mchk.org.hk/english/code/files/Code_of_Professional_Conduct_2016.pdf
- The Nursing Council of Hong Kong. (2015). *Code of Ethics and Professional Conduct for Nurses in Hong Kong*. Retrieved from <https://www.nchk.org.hk/filemanager/en/pdf/conduct.pdf>
- Voluntary Health Insurance Scheme. (n.d.). *About VHIS*. Retrieved from https://www.vhis.gov.hk/en/about_us/index.html
- Wiler, J. L., Harish, N. J. & Zane, R. D. (2017). *Do Hospitals Still Make Sense? The Case for Decentralization of Health Care*. Retrieved from <https://catalyst.nejm.org/hospitals-case-decentralization-health-care/>
- Wouters, O. J., Cylus, J., Yang, W., Thomson, S., & McKee, M. (2016). Medical savings accounts: assessing their impact on efficiency, equity and financial protection in health care. *Health Economics, Policy and Law*, 11(3), 1-15. DOI: 10.1017/S1744133116000025
- Zhang, H., & Yuen, P. P. (2016). Medical Savings Account balance and outpatient utilization: Evidence from Guangzhou, China. *Social Science & Medicine*, 151, 1-10.