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Inequities in Chinese Health Services: An Overview of the Recent History of Chinese Health Care and Recommendations for Reform

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Abstract

The Chinese health system was once held up as a model for providing universal health care in the developing world in the 1970s, only to have what is now considered one of the least equitable systems in the world according to the World Health Organization. This article begins with a brief look at what equity in health services entails, and considers the inequities in access to health services in China among different segments of the population. This article will consider challenges the current inequities may present to China in the near future if reforms are not implemented. Finally, it will take a look at reforms made by China's neighbors, Singapore and Thailand, which made their health care more equitable, affordable, and sustainable.

Keywords

China, ethics, health care, public health, health equity, health reform, health inequities

Introduction

This article will begin first with a brief look at what equity in health services entails. Equity is an ethical principle, which refers to "fairness and social justice," rather than equality or sameness (Mooney, 1994). The concept of equity is normative and value-based, whereas equality may not be inherently defined in such terms (given that an outcome may arguably be equitable but not equal. One example of this would be that men and women access health care with differing frequencies; however, if they also succumb to illness with differing frequencies, then their care may exhibit equity without exhibiting equality, if both wish to visit physicians only when ill; Braveman & Gruskin, 2003). Second, this article will consider the inequities in access to health services in China among different segments of the population, including urban versus rural, male versus female, and affluent versus poor. It is impossible to understand the current challenges facing China without taking a close look at the recent historical changes in the economic culture. The shift from a planned economy to a more market-based economy has had a dramatic impact on almost every aspect of life in China, including access (or lack thereof) to health services. The Chinese health system was held up as a model for providing universal health care in the developing world in the 1970s, only to have what is now considered one of the least equitable systems in the world according to the World Health Organization (Ramesh & Wu, 2009). Therefore, an analysis of inequities in health services will begin with a look at how these changes affected the reasonably effective health systems that were in place during the 1970s. Third, this article will briefly look at the challenges the current inequities may present to China in the near future if reforms are not implemented. Fourth, the article will consider two other countries in Asia and the way they have implemented changes to their health services infrastructure to try to make care more equitable and affordable, and what China might be able to take from these examples (Singapore and Thailand).

What Is Equity?

Equity in health has been defined as "the absence of systematic disparities in health (or in major social determinants of health) between groups with different levels of underlying social advantage/disadvantage—that is, wealth, power, or prestige" (Braveman & Gruskin, 2003). Margaret Whitehead (1992) defines health inequities as having

> a moral and ethical dimension. [Health inequities] refers to differences which are unnecessary and avoidable but, in addition, are also considered unfair and unjust. So, in order to describe a certain situation as inequitable, the cause has to be

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> examined and judged to be unfair in the context of what is going on in the rest of society. (p. 219)

When differences exist related to access to health services based on economic disadvantages, it even further marginalizes those groups of people, as health is a prerequisite to overcoming other social justice hurdles for these groups.

How then do we define equity? There are two traditional approaches, neither of which works in all situations. The first is an attempt to define equity as an equal amount spent per capita on health services (Whitehead, 1992). This definition, however, ignores differences in need between different age and social groups. The second traditional attempt to define equity is that it is achieved when "equal health status has been attained" (Whitehead, 1992). Because availability of health services is only one of many potential factors that can affect health status, this seems like an inadequate definition as well. The best definition for the purposes of this article that I have located is that proposed by Whitehead (1992), which is that three things are required for equity: equal access to available care for equal need, equal utilization for equal need, and equal quality care for all. She elaborates,

> Equal access to available care for equal need implies equal entitlement to the available services for everyone, a fair distribution throughout the country based on health care needs and ease of access in each geographical area, and the removal of other barriers to access. (Whitehead, 1992, p. 221)

Implicit in striving for health services equity are three fundamental assumptions, as stated by Lu Ann Aday and Ronald M. Andersen (1981):

1. Health care is a right,
2. The resources for allocating health care are finite, and
3. Health policy should be concerned with the design of "just"[1] mechanisms for allocating scarce health care resources.

The Belmont Report (1979) first articulated three ethical principles that "provide a basis on which specific rules may be formulated, criticized and interpreted." These principles are respect for persons, beneficence, and justice. Although the Belmont Report was focused on principles that would ensure ethical research using human subjects, Beauchamp and Childress (2001)

Much of the debate about access to care has focused on the principle of justice, particularly with respect to the distribution of finite resources (Aday & Andersen, 1974, 1981; Mechanic, 1978). The finite nature of resources and the costs of such resources may inevitably lead to restrictions in access to care for those without the ability to pay out of pocket, but many ethicists argue for some minimal level of care to be provided to all people. If no social safety net of minimal care is guaranteed, this leaves either consumers or the providers of care in the position to make value judgments of how much of what type of service is required, and at what cost (Aday & Andersen, 1981). Many health economists and bioethicists agree that some "basic minimum" of services should be provided to all in society, while allowing market forces to be free to operate beyond that minimum safety net (Aday & Andersen, 1981).

China: A Nation in Transition: Health Care Fluctuations During the 1990s

In the past few decades, China's economy has transitioned steadily from a planned economy into a market economy. This shift has created many changes in the availability and access to health services for poor and middle-class citizens. Although overall, the country has gained tremendous wealth under the market economy system, the inequity of wealth has never been greater. Reforms in public and government institutions in China have made public access to health services for populations more inequitable (Gao, Tang, Tolhurst, & Rao, 2001). From 1950 to 1980, China had "a health care system that provided almost all its citizens with access to basic health services at an affordable price" (Gao et al., 2001, p. 302). Two primary health care services entities provided coverage to many people in urban areas, the Governmental Insurance Scheme (GIS) and Labor Insurance Scheme (LIS; Gao et al., 2001). The GIS covered government and public-sector workers as well as university students (Gao et al., 2001). The LIS provided coverage for state-owned and collectively owned enterprise workers (Gao et al., 2001). Although these plans originally provided full coverage at no cost to the employees and students, changes were later made to some plans to control costs, introducing co-payments such as those familiar to American workers with employer-based insurance plans (Gao et al., 2001). Adding to the inequity issue in urban China are the increasing numbers of migrant workers in urban areas, increases in unit costs for health care and drugs, and larger numbers of people working for small private or collectively owned firms (Liu, Hsiao, & Eggleston, 1999). According to Yuanli Liu (2004), from 1949 to the early 1980s,

> China's health policies emphasized prevention and public health, wide entitlement and access to medical care, and the use of minimally trained health personnel ("barefoot doctors") to provide basic health services . . . [which helped lower infant mortality] from about 250 per 1000 live births in 1952 to 34 per 1000 in 1985 and increase life expectancy from about 35 years to 68 years during the same period. However, improvements in health stagnated during the period of economic reforms, and inequalities in health and access to health care have increased. (p. 533)

During the mid-1980s, commercialization of the health sector began as the government tightened public hospital budgets and reduced funding for other health service organizations

(Liu, 2004). Providers were expected to generate enough in revenues to cover the difference between the public funding and their costs (Liu, 2004). Providers were also permitted to mark up the price of drugs by 20%, giving incentives to providers to prescribe more frequently than may be medically necessary (Liu, 2004). Not only did this further increase disparity in care among different income groups, it also shifted the nation's health services system from a more historically preventive system to one focused on "revenue-generating activities" (Liu, 2004).

Rural Health Services

China's historical rural health care system had been a three-tier system, utilizing a village health station, township health center, and county hospital (Liu, 2004). This system had used a referral process for patients, which began with the "Barefoot Doctors" who treated the simplest illnesses and diseases, and referred patients to the upper tier facilities for those things they could not adequately treat themselves (Liu, 2004). Under the Cooperative Medical System, health services financing came from a pre-payment plan through which farmers paid 0.5% to 2% of the family's annual income, a village Collective Welfare Fund, and governmental subsidies (Liu et al., 1999). Ninety percent of rural citizens were included in one of these plans in the late 1970s (Liu et al., 1999). By the early 1990s, less than 10% had access to health care insurance (Tang & Bloom, 2000).

During the economic reforms of the previous two decades, the rural Cooperative Medical System became increasingly fragmented as various facilities began competing for patient-generated revenues, with some of the entities becoming privatized (Liu, 2004). As the Third Plenary of the Tenth Congress of the Communist Party "ratified a programme of economic reform aimed at implementing China's transition to a market economy with socialist characteristics" (Mechanic, 1978, p. 190), changes began, which sought to decentralize the rural health system (Tang & Bloom, 2000). As Tang and Bloom (2000) explain, the economic restructuring of the early 1980s played a large role in what has become a rift between the health services equity (and overall economic equity) between rural and urban Chinese.

> [In 1983-84] . . . the rural economy was de-collectivized and all townships and villages adopted the "household responsibility system," which entitled each household to work an amount of land in proportion to its size. Households now have full financial responsibility for production. This has reduced the capacity of local administrative bodies to mobilize resources for collective use. In the meantime, local governments and state enterprises have been given greater autonomy. An important aspect of financial reform was a re-arrangement of revenue sharing between the central and local governments. This has allowed particular regions and sectors to race ahead, whilst some poorer regions have experienced major financial difficulties. (p. 191)

Health service management centers now receive their funding from their township government rather than from the county (Tang & Bloom, 2000). This has greatly reduced the level of funding, as well as likely increased corruption and poor management practices driven by other (non-health) interests. Tang and Bloom (2000) cite an example:

> [A] Deputy Director of one health centre reported that the township government asked local public institutions to assign their staff to working groups put together to undertake tasks, such as purchasing grain during the harvest season and forest protection. The government threatened to hold back its grant if the health centre refused to provide staff for these activities. He had to comply, to the detriment of service provision. (p. 191)

The Ministry of Health attempted to prevent the number of dedicated health care workers in the health centers from falling too low by passing regulations requiring that no more than 25% of health center employees be non-medical employees; however, by the mid-1990s, it was clear that even these guidelines were not being enforced in rural areas (Tang & Bloom, 2000).

Health Care After the Economic Restructuring of the 1980s

Although urban populations overall fared better financially during the 1980s economic restructuring, they are not without major problems in equitable access to health services. Between 1993 and 1998, data collected from more than 16,000 households in a survey study showed the changes in access to health services among different income groups in urban China (Gao et al., 2001). During these years, the income gap increased, while there was a decline in the population covered by the LIS and GIS (Gao et al., 2001). The number of people during this time frame who paid out of pocket for health services increased from 28% to 44% (Gao et al., 2001). One of the most telling facts obtained from this study was that use of outpatient services decreased from 4.5% in 1993 to 3.0% in 1998 (Gao et al., 2001). During these years, the proportion of people covered by the GIS and LIS declined from 52% to only 39%, and those without any insurance rose from 28% to 44% (Gao et al., 2001). Those "less likely to be able to cover the costs of health care were also less likely to have health insurance" by 1998 (Gao et al., 2001, p. 306). The gender gap also appeared to widen, with only 41.9% of women with insurance in 1998 compared with 46.3% of men (Gao et al., 2001).

The primary reason cited for not seeking outpatient services among those who had an illness that went untreated was financial difficulty (70% in 1998 vs. only 38% in 1993; Gao et al., 2001). Inpatient hospital services are typically the most expensive services and may also provide a strong indicator as to economic barriers to care (as patients are less likely to be admitted if they do not have insurance or means

of out-of-pocket payment; Gao et al., 2001). Surveys show a strong drop from 1992 to 1997 from 4.5 inpatients per 100 people to 3.0 inpatients per 100 people (Gao et al., 2001). In 1992, 68% of those in the lowest economic group needing inpatient services but not utilizing them cited financial difficulty as the reason; in 1997, that percentage grew to 86 (Gao et al., 2001). Perhaps more interestingly, this difficulty in affording hospital care grew dramatically among the highest income group as well, from only 7% in 1992 to 31% in 1997 (Gao et al., 2001). Gender-based difficulty expressed itself with 55.6% of men and 64.8% of women attributing lack of services used due to finances (Gao et al., 2001).

Gao et al. (2001) have concluded from the data analysis that

> access of the urban population, particularly the poor, to formal health services has worsened and become more inequitable since the early 1990s. Among possible reasons for this trend are the rapid rise of per capita expenditure on health services and the decline in insurance coverage. (p. 302)

This has been attributed in part to the rapid growth in health expenditures and lack of adequate mechanisms with which to control "service providers' behavior, heavy provider reliance on fee-for-service payment methods, and price distortions in the health sector" (Gao et al., 2001, p. 309). Health providers are permitted to "make profits from drug sales and the provision of sophisticated diagnostic tests, while they keep prices of basic services at a lower level than real costs" (Gao et al., 2001, p. 309). As such, over-prescribing of prescriptions and misallocation of resources toward inflated uses of expensive drugs and technologies are driving economic inefficiency in China's health care system (Gao et al., 2001).

The Chinese government has continued to exhibit a weakened role in terms of ensuring citizens have access to health care. China's national spending on health services as a percentage of GDP rose from 4.11 in 1991 to 4.82 in 2000 (Liu, 2004). However, *government* spending on health care as a share of total health spending diminished from 22% in 1991 to just 14% in 2000, while costs for care increased substantially (Liu, 2004). Out of pocket spending skyrocketed from 38% in 1991 to 60% in 2000 (Liu, 2004). Governmental spending on public health efforts also decreased 5% overall during the same 9 years (Liu, 2004). Experts in the field of public health agree that China's continuing environmental pollution, lack of clean water supply, and easing of internal travel restrictions, in addition to more international travel threats and potential epidemics such as severe acute respiratory syndrome (SARS), should have called for increased spending during these years (Liu, 2004). The increasing migrant labor force in China's urban areas may add to the concerns of future epidemic outbreaks as they often suffer from poor health conditions, low wages, and reduced access to care (Liu et al., 1999). These factors are worsened by the fact that this population is highly mobile, and epidemics may be faster spreading and harder to trace.

What Has Been Done About the Lack of Access to Care?

The Basic Health Insurance Scheme (BHIS) was launched to fill the void of the existing GIS and LIS systems (Ramesh & Wu, 2009). Unfortunately, BHIS was offered only to urban employees and was not available for informal sector workers or migrant workers (Ramesh & Wu, 2009). Dependents were also left uncovered by BHIS. BHIS was funded by employees at a rate of 2% of their salary and by employers at 6% (Ramesh & Wu, 2009). Only 28% of all urban populations were covered by BHIS as of 2008 (Ramesh & Wu, 2009).

In 2002, an attempt was made to improve rural care as well (Ramesh & Wu, 2009). The New Cooperative Medical System (NCMS) was offered at HK$1.25/year with the government spending an additional HK$2.50/year in subsidies (Ramesh & Wu, 2009). The government subsidy was increased to HK$6/year by 2007, amid concerns of financial vulnerability, which increased voluntary enrollment in the plan to more than 80% (Ramesh & Wu, 2009). In 2010, the fee increased to HK$4.50/month for participants, with local and central governments contributing HK$18.00/month (Ma, Zhang, & Chen, 2012).

NCMS offers three schemes, chosen by the local government. The first funds hospitalization expenses and some expenses for the treatment of serious illness. The second scheme funds hospitalization and some outpatient costs not restricted to serious illness. The third and most comprehensive scheme covers hospitalization costs and provides health savings accounts for other medical expenses. Although the third scheme offering comprehensive coverage is very popular in the regions in which it is offered, the program would not be sustainable if offered in all regions (Ma, Zhang, & Chen, 2012). Unfortunately, offering the least expensive option, Scheme 1, results in the lowest levels of participation in poor rural areas (Ma, 2012).

The Urban Resident Basic Medical Insurance (URBMI) was initiated in 2007, modeled after the State Council Policy Document 2007 No. 20's guidelines (Lin, Liu, & Chen, 2009). URBMI appears to benefit the lowest-income participants the most, along with those receiving inpatient care (Lin, 2009). Enrollment in URBMI is a voluntary decision made by each household, and coverage focuses on chronic and fatal conditions (Lin, 2009). Premiums are set at higher rates than similar NCMS (Lin, 2009) schemes. On average, URBMI covers 45% of inpatient costs (Lin, 2009).

Is Insurance the Answer?

Perhaps the most troubling aspect of the various attempts to provide medical insurance coverage in China is that insurance coverage may be resulting in higher out-of-pocket costs

for the insured than they would have experienced if they were uninsured (Wagstaff & Lindelow, 2008). According to Wagstaff and Lindelow (2008), results from "three separate household surveys suggest that in China health insurance is more likely than not to increase out-of-pocket spending and to increase the risk of catastrophic and large expenses" (p. 1002). There are several possible reasons for this, including the increased likelihood of the insured to seek care, a preference by the insured to prefer more expensive providers, and likelihood of medical providers delivering more expensive medical tests, drugs, and interventions to the insured (Wagstaff, 2008).

China's Health Care Challenges for the New Millennium

China's performance as a leader in Asian health services has been deteriorating steadily since the early 1980s compared with other developing countries. China is now behind several other Asian nations according to the World Bank, despite "massive increase in total health care expenditures" (Ramesh & Wu, 2009). Its population is now rapidly aging compared with other BRIC (Brazil, Russia, India, and China) countries. This is in part due to its one-child policy and in part due to low wages for many Chinese even as others are becoming economically prosperous (Cao, Chen, & Fan, 2011). The number of people aged 65 or older is 8.3% of the population, or more than 109 million people (2009; Cao et al., 2011). By 2050, it is estimated that 25% of the total population will be senior citizens (Cao et al., 2011). Concerns are now surfacing in China about the inevitable "intergenerational injustice" as the young voice their objection to potentially paying more for health care to offset costs of caring for the elderly as that population grows (Cao et al., 2011). Recent surveys show that health care costs and equity are among the top concerns among the public (Cao et al., 2011). Due to the public concerns, the Chinese government has recently made efforts to analyze the situation and put a plan into place to provide insurance to more citizens and increase equitable access to care (Ramesh & Wu, 2009).

In 2007, nine organizations[2] made formal recommendations for reforming the health system (Ramesh & Wu, 2009). Later, in a 2008 State of the Nation address, Prime Minister Wen Jiabo announced a 25% increase in health services spending by the government (Ramesh & Wu, 2009). Proposed measures include increased government expenditures to provide free or low-cost routine care at publicly funded hospitals, or increased funding to provide government subsidized health insurance to the 80% of the population currently lacking health insurance (Ramesh & Wu, 2009). Although more public spending appears to be needed, it is unclear what, if anything, these measures will do to restrain the quickly growing cost of providing health services (Ramesh & Wu, 2009). The government has now committed to achieving universal health coverage by 2020 (Ramesh & Wu, 2009).

The Singapore Example

In 2005, Singapore's expenditures on health care were S$7.6 billion (3.8% of GDP; Okma et al., 2010). Of that amount, government spending accounted for only S$1.8 billion (0.9% of GDP; Okma et al., 2010). Three government plans exist, Medisave, Medishield, and Medifund, along with private insurance, which help citizens pay for their medical care (Okma et al., 2010). Medisave was introduced in 1984 as an extension of the Central Provident Fund (CPF), which is a "compulsory, tax-exempt, interest-yielding pension savings scheme" (Okma et al., 2010). This plan is essentially withdrawn from an individual's paycheck in pre-tax dollars and kept for them to use if they need health care. In an effort to ensure better access to care for women, children, and the elderly who may not be working, this fund may also be utilized to pay for hospitalization of spouses, children, siblings, or parents (Okma et al., 2010). When an individual dies with money in the account, it is transferred to his or her beneficiaries (Okma et al., 2010). The combined Medisave accounts in Singapore currently total S$36 billion (Okma et al., 2010).

Medishield is by contrast a voluntary program that provides low-cost (government subsidized) catastrophic illness coverage (Okma et al., 2010). Individuals may also use their Medisave funds to pay for the premiums if they choose (Okma et al., 2010). Medifund, the third government program, is the state-funded safety net program for those unable to pay for care, without Medisave or Medishield, or having maxed out their coverage under the other plans (Okma et al., 2010). It is through the Medifund program that equity is really achieved, as the poorest part of the population is not able to contribute to their own health savings program, and women may be disproportionately left out of the program due to lower rates of working outside the home.

The Chinese also may be wise to follow the example set forth by Singapore with regard to public hospital funding.

> Public ownership of four-fifths of hospital beds offers the government a strong presence in the health care sector. It uses its ownership to tightly control the hospitals' revenue-maximizing behavior. Moreover, it uses its position as the largest purchaser of health care in the country to monitor and control costs through purchase contracts. Furthermore, the government employs a combination of block payments and Casemix formula to alter hospitals' behavior in a desired manner without interfering in their routine management. (Ramesh & Wu, 2009, p. 2259)

In 2003, a user survey of Singapore's public hospitals earned a Total Experience index of 91 and Value for Money index of 86 (Ramesh & Wu, 2009). Private hospitals actually have a difficult time competing with public ones in terms of both quality and price (Ramesh & Wu, 2009). With such high marks, one might expect that Singapore's system is very expensive, but the opposite is actually true—spending is currently 43% lower than predicted (Ramesh & Wu, 2009).

Singapore's health system is an interesting blend of public and private insurance, and public and private services.

Although individuals are strongly encouraged (and actually required, if they are employed) to save for their own health care, the government has provided a simple and tax-free means of doing this, and the monies not spent roll over from year to year, and to family members on death. This encourages people to not over-utilize care that they may not medically need. The Singapore system also permits a freedom of choice for patients among all providers. This combination of strong market focus and individualism is enhanced further with the social program of Medifund (and more recently, the Eldercare Fund, which provides subsidies to voluntary welfare organizations caring for the elderly; Okma et al., 2010). Health care access for the poor is "guaranteed by a government promise that no Singaporean will ever be denied needed health care because of inability to pay" (Okma et al., 2010, p. 87).

The Thailand Example

Thailand underwent problems during the 1980s similar to the problems China has suffered in recent years, making it another potential case study for China to consider when trying to implement more equitable health care coverage (Ramesh & Wu, 2009). The Civil Servant Medical Benefit Scheme (CMBS) was launched in 1980 to provide comprehensive care to all current and retired state and federal employees and their parents, spouses, and children (Ramesh & Wu, 2009). The plan is funded by the government without employee contributions (Ramesh & Wu, 2009). Costs for the program remain quite high due to the fact that it functions on a "fee for service" basis (Ramesh & Wu, 2009). Private-sector workers are covered by Social Health Insurance (SHI) launched later in 1991 (Ramesh & Wu, 2009). This plan is funded by 4.5% of employee wages, with the funding shared among employee, employer, and the government in equal thirds (Ramesh & Wu, 2009). This plan pays providers for services on a "capitation" basis, which is now the most prevalent method of insurance payment to providers in Thailand (Ramesh & Wu, 2009).

Informal and unemployed workers, students, the disabled, veterans, and monks are provided coverage under the Low Income Card (LIC) Scheme, which was initiated in 1975 and expanded in 1994 (Ramesh & Wu, 2009). In 2001, Thailand introduced its most popular plan, Universal Coverage (UC, also known as the 30-Baht scheme), expanding the health system to almost universal coverage (Ramesh & Wu, 2009). The plan covers anyone not eligible under Social Security Scheme (SSS) or CMBS, insuring roughly 30% of the country at no charge, and provides comprehensive care that even includes prescription drugs (Ramesh & Wu, 2009). A referral system is in place that helps to deter people from receiving care and services that are not medically needed (Ramesh & Wu, 2009).

Thailand's public sector now accounts for nearly 88% of all hospital beds and 79% of physicians (Ramesh & Wu, 2009). It has also put into place a National Health Security Office (NHSO), which purchases medical services for the SHI and UC schemes, and is able to impose conditions and prices on providers to keep costs down (Ramesh & Wu, 2009). Under this system, Thailand's national health care expenditures dropped from 5% of GDP in 1990 to 3.5% of GDP in 2005 (Ramesh & Wu, 2009).

Conclusion

Under the universal care programs of the 1950s to 1970s, the overall health status of the Chinese population rose impressively: Infant Mortality Rate (IMR) was improved from 200 to 34 per thousand live births, whereas life expectancy increased from 35 to 68 years (Ramesh & Wu, 2009). Just as remarkably, these achievements were reached at a relatively low cost: Total health expenditures formed only 3% of GDP in the early 1980s (Ramesh & Wu, 2009). Other developing Asian countries with less economic power than China, such as Thailand, have also seen the benefits of providing equitable care at a very affordable cost after implementing universal health care coverage in recent years (Ramesh & Wu, 2009). Chinese authorities, under increasing pressure from the public, have stated that the country is committed to returning to a UC system of care by 2020; however, it is unclear at this point what such a system might look like.

If China is seeking to provide more equity in access to health care, it could conceivably take one of two previously successful approaches: Develop a system that is a combination of public and private enterprise like that of Singapore, with measures in place to provide care at no cost for those unable to pay, or develop a system more like that of Thailand, which utilizes more private services but provides insurance subsidized by government and employers, and an additional policy, which provides free access to care for those unable to participate in the other plans.

Singapore's health services system is able to require people (with adequate income) to save for their own health care costs on a tax-free basis. This is very useful in a country like Singapore, because they have a strong growing economy like China, and many people are very capable of saving for their own future costs. Catastrophic coverage is very affordable because of both the low-cost government subsidized insurance plans, and because many public hospitals are available keeping prices for services competitive. In addition, safety net programs were put in place in Singapore to ensure that the poor and unemployed are guaranteed access to health care. A system such as this may be useful in China where the economy has continued to grow at impressive rates for years, although the economic disparity among Chinese would likely require higher investments in the safety net programs than Singapore citizens require (due to higher poverty rates).

Although the Chinese government has stated its commitment to overhauling its current health system and providing universal health coverage again, an incremental strategy that could be utilized prior to the self-imposed 2020 deadline might consist of ensuring access to certain basic services for

those unable to pay until UC can be achieved. This might even be in the form of a return to "barefoot doctors" with minimal qualifications but with the ability to handle many common illnesses and diseases in rural communities. In more urban areas, it could mean providing sliding scale (based on income, free for those unable to pay) insurance, which would cover common ailments and illness at a minimum. This type of system would at least help establish a floor of minimal health care that no person could fall below regardless of his or her ability to pay.

During the eventual transition back into universal health coverage, the government should keep in mind what efforts at capping prices for health care have been effective in other countries. For example, UC can be achieved much more affordably if the Chinese will take measures to ensure that the government has enough "purchasing power" in the system (even if several parts of the health services system remain private, or a combination of public/private) and/or to ensure that fees are paid in a way that does not encourage physicians to frivolously increase an individual's health care spending/consumption. This could even follow Indonesia's recent example of issuing a "government use" decree, which would allow patent restrictions on generic production of certain life-saving drugs and plans for manufacturing generic versions of those drugs locally (Doctors Without Borders, 2012). If reducing inequities in service access is enacted by only increasing governmental expenditures or subsidies without careful attention to how costs may be controlled, it is difficult to see how throwing money at this problem will help the average Chinese citizen in the long term, as although the costs are shared, they would be expected to rise at rapid rates year after year.

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Notes

1. Justice is one of the benchmarks set forth in the Belmont Report (1979), which has been used to determine whether medical research is ethical and appropriate to be tested on human participants. Since then, many bioethicists have widely used these principles in weighing the ethical obligation of a variety of actors in health services–related issues.
2. Including the World Bank, World Health Organization, and Peking University.

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