Primary Health Care in South Asia 3

Improving urban health through primary health care in south Asia

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South Asia is rapidly urbanising. The strains of rapid urbanisation have profound implications for the health and equity of urban populations. This Series paper examines primary health care (PHC) in south Asian cities. Health and its social determinants vary considerably across south Asian cities and substantial socioeconomic inequities are present. Although cities offer easy geographical access to PHC services, financial hardship associated with health care use and low quality of care are a concern, particularly for low-income residents. Providing better PHC in south Asia requires a multi-sectoral response, with effective and resourced urban local bodies; increased public financing for health care; and new service delivery models aimed at low-income urban communities that involve strengthening public sector services, strengthening government engagement with private providers where necessary, and engaging with low-income communities and the PHC providers that serve them.

Introduction

In the short span of two decades, south Asia's urban population nearly doubled to 645 million in 2020, and is expected to almost double again by 2050 to 1·2 billion.[1] By 2050 between a third and half of the population will be urban.[1] The region's cities will have an increasingly important role in improving and sustaining population health.[2]

Cities are engines for economic development. Some consider urbanisation a necessary pathway to achieving prosperity, while for others migration to cities strains infrastructure, health services, housing, and transport. Pollution, particularly of water bodies and air, and diminishing green spaces have become concerns in many south Asian cities. South Asia's cities attract many migrants from rural and smaller urban areas seeking employment. However, despite these people's key economic role, cities have largely ignored them. Many live in informal settlements characterised by inadequate[3,4] housing and services, and unhealthy living and working environments.[3,4] Across cities in the region, adverse social determinants of health sustain and exacerbate social, economic, and health inequities. These issues are exemplified in health systems that are deeply segregated. World-class health care for individuals who can afford it coexists with highly variable quality of care for the low-income urban residents.[5] Because health systems in south Asian countries are highly privatised (Sri Lanka being an exception) and have low coverage of pre-paid health services, treatment for serious illness forces many urban dwellers into situations of financial precarity or impoverishment.

Health systems oriented at primary health care (PHC) are more cost efficient, and have improved population health, increased patient satisfaction, and achieved greater equity in access to health care compared to health systems based on hospital care.[6,7] A PHC orientation to urban health systems offers a tested approach to tackle the complex and diverse health issues of south Asia's cities. PHC is defined here as services and actions for individuals and communities related to health services (preventive, curative, and promotive) offered by non-specialist providers, inter-sectoral action for health, and community engagement.[8] This review aims to provide a comparative assessment of urban health performance in India, Bangladesh, Nepal, Pakistan, and Sri Lanka. Second, with the aim of strengthening PHC in south Asian cities, the themes of governance, access to

Key messages

- A great challenge of cities in south Asia is to reduce health disparities resulting from poor living environments and inadequate access to quality housing, sanitation, water, and health services.
- Important innovations in primay health care have been developed in the region. Sri Lanka's achievements in urban health and equity is notable.
- Strengthening urban primary health care requires governance reforms that empower local bodies under ministry of health stewardship to build local government urban planning capacity, which would align the private sector with public health goals and increase public financing for urban health care.
- Improving access of low-income residents to quality health care can be done through expanding access to public sector services in low-income areas, engaging with informal providers, and establishing partnerships with non-state providers.
- The benefits of community engagement can be harnessed by strengthening outreach to low-income communities and supporting community-level institutions that are responsive to local needs.
- Multi-sectoral action strategies should have health as a key objective.

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affordable and quality health-care services, community engagement, and inter-sectoral action are examined. These themes cover the foundations of the PHC approach, emphasising comprehensive integrated health services, inter-sectoral action for health, and community engagement.[6,7]

Methods

Urban health performance areas and indicators were informed by the WHO's urban health index.[9] To examine urban PHC systems we adapted Adams and colleagues'[2] framework for achieving universal health coverage in urban contexts. This adapted framework draws attention to four areas of priority interventions necessary to reach universal health coverage and greater health equity in south Asian cities. This framework also aligns with key features of the PHC approach—governance, access to affordable and quality services, community engagement, and multi-sectoral action. Governance refers to the interactions between citizens, health-care providers, and levels of government responsible and accountable for PHC in urban areas; access to affordable and quality services focuses on financial hardship and the quality of health-care services; community engagement refers to approaches for giving communities a voice in the planning and management of health services; and multi-sectoral action recognises the importance of social determinants of health and aligning policies across various ministries and other relevant stakeholders, with a common goal of improving population health. Data presented in this study are drawn from published literature and publicly available databases. Recommendations are based on analysis of the reviewed literature and expert consultations.

Globally, there is no consensus on the definition of urban.[10] Most countries, including in south Asia, use multiple criteria, such as measures of population density, minimum population size, extent of urban development, or most prevalent type of employment in the region. This multitude of definitions leads to challenges in cross-country comparisons and underestimating urban population sizes.

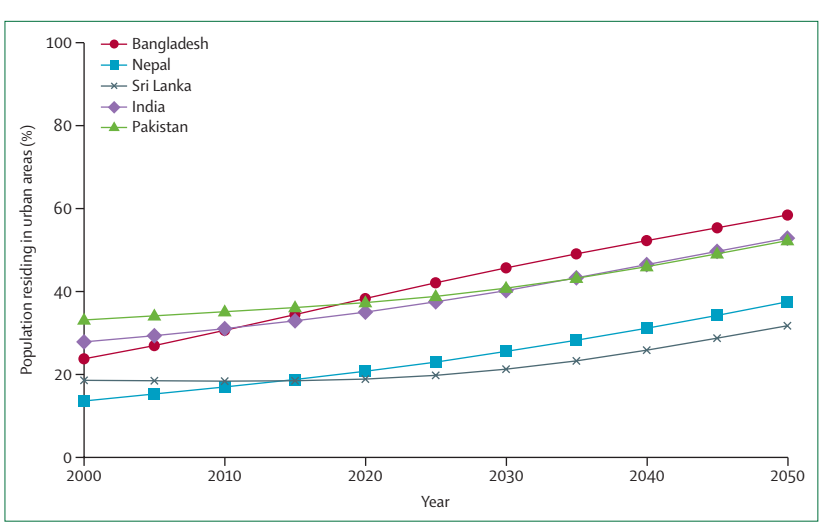

Figure 1: **Trends in share of urban population**
Source: World Urbanization Prospects 2018.

Urbanisation and health

Bangladesh, Pakistan, and India have the highest share of urban populations compared with Nepal and Sri Lanka (figure 1). Between 2015 and 2020, the annual growth rate in urban population was highest in Bangladesh and Nepal (3·2%), followed by Pakistan (2·7%), India (2·4%), and Sri Lanka (0·5%).[1] At these growth rates, the urban population is projected to double or nearly double by 2050 with up to 118 million in Bangladesh, 877 million in India, 160 million in Pakistan, 14 million in Nepal, and 7 million in Sri Lanka.[1] By 2050, the share of urban population will exceed 50% in Bangladesh, India, and Pakistan, and approach 40% in Nepal and 30% in Sri Lanka (figure 1).

Health

Health outcomes vary considerably across urban south Asia (figure 2). Sri Lanka leads the region with a low infant mortality rate (IMR) of ten per 1000 live births, which is similar to the rate in high-income countries (figure 2). India, Bangladesh, and Nepal are mid-level performers, although IMRs have declined in all these countries, especially in India (where the declaine was from 47 to 28 deaths per 1000 live births between 2010 and 2020).[11] Pakistan has consistently had the highest IMR among these countries, although the IMRs in this country have declined too. In all countries, except in Bangladesh, the urban IMRs are lower than the rural and national IMRs, indicating a better average health of urban residents (figure 1).[1] Expectedly, disease burden due to perinatal and nutritional conditions, chronic respiratory diseases, diarrhoea, and fever of unknown origin are lower in urban relative to rural areas.[12]

Inequalities in IMRs between the low-income and high-income quintiles (in urban areas) are substantial (figure 2). Pakistan has the largest inequalities—the poorest 20% of the urban population experience 40 more deaths per 1000 live births compared with the richest 20%. In all countries, the poorest 20% of urban residents have an IMR similar to the rural average. Bangladesh is an exception—here, the IMR among the urban poor is higher than the rural average. Sri Lanka's achievement is remarkable. The average IMRs of the rural and urban population is lower than that of the richest urban wealth quintile of south Asia, who have access to good medical care and have advantageous social determinants of health.

Accelerated nutrition and epidemiological transitions in south Asian cities triggered by changing lifestyles, diets, and adverse environmental exposures, are exemplified by a rising burden of non-communicable diseases.[13–15] Urbanisation is a leading cause of rising

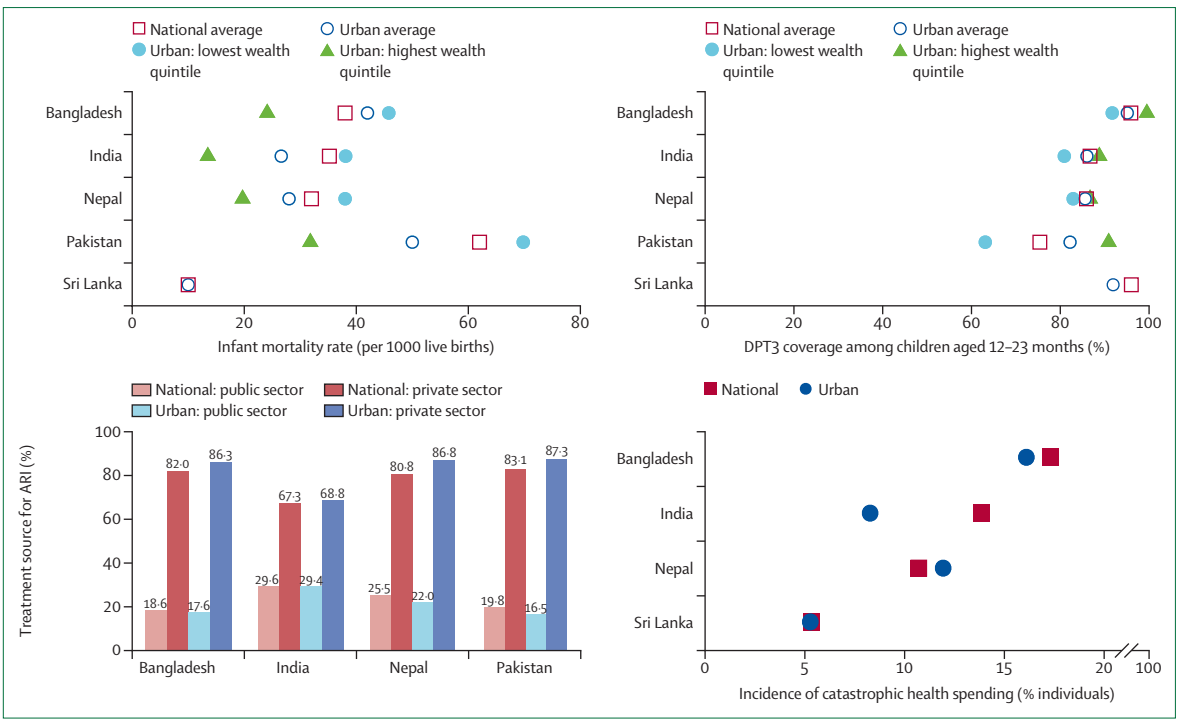

Figure 2: **Health, service coverage, and catastrophic health expenditures**
Figure shows variation in average levels and socioeconomic inequalities in infant mortality, vaccination for DPT3 (3rd dose of diphtheria, pertussis, and tetanus), source of treatment for ARI (acute respiratory infection), and catastrophic health expenditures (proportion of population spending more than 10% of annual consumption expenditure on health). Source: Demographic and Health Surveys: Bangladesh (2018), India (2022), Nepal (2016), Pakistan (2018).[19] For catastrophic health expenditures see Wang and colleagues (2018). ARI=acute respiratory infection. DPT3=3rd dose of diphtheria, pertussis, and tetanus.

	Year	Urban population residing in slums (%)	Urban population residing in slums (millions)
Country			
Bangladesh	2016	53·2	30·39
	2018	52·5	32·00
	2020	51·9	33·62
India	2016	49·7	218·42
	2018	49·0	225·83
	2020	49·0	236·77
Nepal	2016	43·2	2·37
	2018	40·3	2·36
	2020	40·3	2·51
Pakistan	2016	59·0	41·32
	2018	57·5	42·34
	2020	56·0	43·34

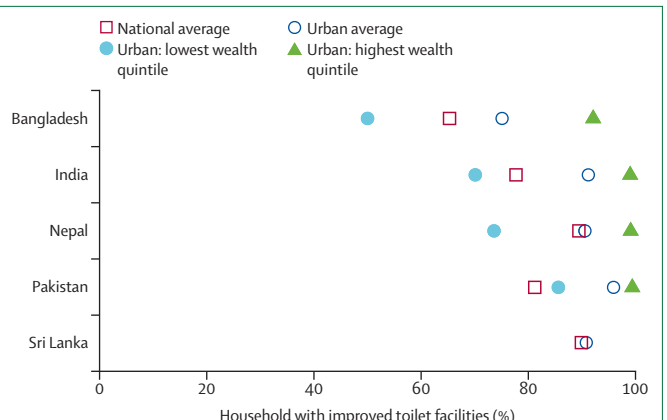

Figure 3: **Urban population residing in slums and access to toilet facilities**
UN Habitat defines a slum household as one in which the inhabitants suffer one or more of the following household deprivations: no access to improved water source; no access to improved sanitation facilities; insufficient living area; and no housing durability. Source: UN Habitat; Demographic and Health Surveys: Bangladesh (2018), India (2022), Nepal (2022), and Pakistan (2018).[19]

hypertension burden in low-income and middle-income countries. In south Asia rapid urbanisation has fuelled increases, particularly among the low-income residents, in non-communicable diseases due to changes in living environments, ways of living, unhealthy diets, and use of tobacco and alcohol.[16] Ischaemic heart disease daily rate is higher in urban areas compared with rural areas.[12] Across south Asia, the prevalence of hypertension (systolic blood pressure ≥140 mm Hg with or without diastolic blood pressure ≥90 mm Hg, or taking hypertensive medication) is higher in urban areas compared with the national average (appendix p 1). Similarly, type 2 diabetes is more prevalent in urban than rural areas.[17] Individuals of higher socioeconomic status are more likely to suffer from prehypertension and hypertension. However, in larger Indian cities,

See Online for appendix

diabetes is more prevalent among groups with lower socioeconomic status (appendix p 1).[17,18]

Social determinants of health

Social determinants of health encompass the environments where people are born, live, and work, and profoundly affect the health of urban residents. The living environments of urban populations vary substantially across south Asia and between socioeconomic groups within each country in the region. A large and growing number of urban dwellers in south Asia live in informal settlements characterised by limited access to an improved water source, improved sanitation facilities, sufficient living area, and no durable housing (figure 3). Dwellers in these conditions comprise more than half the urban population in Pakistan, approximately 50% in India and Bangladesh, and 40% in Nepal.

The majority of urban households in south Asian cities have access to safe water sources, ranging from 99% in Sri Lanka to 70% in Nepal.[19] However, large inequalities exist with residents of informal settlements typically having limited access to piped water.[20] Unreliable water supply by public utilities force low-income urban residents to rely on private sources of supply at an additional cost.[20] Most urban households in south Asian cities have access to improved toilet facilities (figure 3). However, substantial differences between low-income and high-income individuals exist, such as in urban Bangladesh where only half of the poorest quintile have access to toilet facilities. Across cities in the region, improper waste management poses an important challenge, with associated implications for disease burden.

Women's literacy, an important determinant of child health and other outcomes, varies substantially across countries in the region (appendix p 1). Most women living in urban settings in all countries are literate; however, large disparities in literacy among women are present, particularly in Pakistan, where less than half the women in the lowest wealth quintile are literate (appendix p 1)

The great challenge for all cities in south Asia is to reduce socioeconomic and health disparities resulting from poor living environments and inadequate access to quality housing, sanitation, water, and health services. The PHC approach offers a way to address this issue. Strong PHC-oriented health systems have been effective in improving maternal and child health[6,7] and in the management of chronic diseases.[21] The PHC approach emphasises intersectoral action on social determinants of health, which is necessary to address the multiple sources of disparity that the urban poor face and necessitates coordinated action across multiple sectors and government ministries. Equally important is the emphasis on active engagement with communities. Because low-income urban residents tend to bypass formal systems of care, involving community groups in health service planning is key for effective PHC programmes.[22]

For more on **medical tourism** see https://www.cnn.com/2019/02/13/health/india-medical-tourism-industry-intl/index.html

Among the 40 most polluted cities in the world, 37 are in south Asia.[23] Among these is Delhi, where the annual average small particulate matter ($PM_{2·5}$) rate was 126·5 μg per m³ in 2021—more than 25 times in excess of WHO guidelines—and air quality was deemed hazardous or very unhealthy during three-quarters of the year.[24] Air quality is diminishing in cities throughout the south Asian region, affecting people's health and the economy. The average south Asian resident would be expected to live 5·1 years longer if measures were taken to meet WHO guidelines on air quality.[25] Human-made causes, including vehicles, industrial emissions, and crop burning are the primary source of air pollution in south Asian cities. Across cities in the region, policies are being implemented to reduce $PM_{2·5}$ concentrations, with Sri Lanka taking the lead. These initiatives include increasing public awareness of air pollution, introducing a fuel reformation to natural gas from petrol and diesel, planning of transportation, implementing traffic flow restrictions, relocating industrial practices away from high population centres, cloud seeding, and strengthening regulatory capacity and enforcement.

Urban PHC: achievements and challenges

Health systems in south Asian countries are characterised by pluralism across several dimensions. Both the public and private sector actively provide primary care services. The public system is the main provider of preventive services and private providers dominate outpatient curative services. At the same time, a multiplicity of medical systems coexist including homeopathy, Ayurveda, Unani, yoga, Siddha, and Tibetan practices. Although there is a strong preference for allopathic medicine, traditional medicine providers are an important source of primary care for the urban poor.[22] Moreover, governments in several countries (eg, India, Nepal, and Sri Lanka) operate traditional medicine clinics in cities. Health expenditures are financed largely by private out-of-pocket spending, with public financing accounting for a smaller share (Sri Lanka is an exception). In general, preventive services are provided by the public sector and curative ambulatory services are predominantly provided by the private sector (except in Sri Lanka where both are provided by the public sector). Several cities boast world-class private hospitals and have become destinations for global medical tourism.

One of the characteristic features of many south Asian cities is the substantial presence of informal health-care providers in poor urban communities, Sri Lanka being an exception. One study reported that in urban India about 31% of individuals who self-identified as allopathic doctors, 52% of individuals who self-identified as of nurses, and 44% of practitioners of traditional systems of medicine did not have formal medical training.[26] Informal health-care providers are usually the provider of first contact for the urban low-income residents. A study from India noted that 66% of care-seeking visits outside home by slum

dwellers were to informal providers, compared with 9% by middle-class homes.[22] Studies from Bangladesh attribute this preference for informal providers to proximity, long opening hours, and trust in providers from their community.[27]

In our analysis we focus on four aspects of urban PHC systems—governance, access to affordable and quality health services, engaging communities, and intersectoral action. A summary of key features of these four areas is provided in the appendix (p 2). Equity is a focus across these themes.

Multilevel governance of PHC

The governance of urban health systems, including of PHC, in south Asian cities, reflects the interaction between citizens, health-care providers, and the federal system of government, which functions at national, state, provincial, and urban local body (eg, municipality) levels. The way in which these actors interact varies by country and within countries. In general, the central government provides overall policy direction for PHC, advocating and supporting (also financially) state or provincial governments around national PHC and health goals. Governance of urban health systems is largely the responsibility of state or provincial governments or urban local bodies, such as municipal corporations or city governments. Urban local bodies are typically responsible for a range of public health functions, such as disease surveillance, water supply and quality, food quality and safety, sanitation, public health sanitation, registration of births and death, improvement of living conditions in slum areas, and upkeep of the living environment. However, in some cities, some of these functions are also provided by the state or provincial government. The provision of preventive services (eg, immunisation) is usually the responsibility of state or provincial governments, who implement centrally funded national immunisation programmes. The provision of public sector curative services is mainly the responsibility of state or provincial health ministries. In large cities, the national health ministry, state health ministries, and local urban bodies can also finance and administer health facilities (appendix p 2).

Governance arrangements and related accountability for urban health systems in South Asian cities are typically complex due to fragmented service delivery arrangements. In major cities, municipal corporations are responsible for public health services, and in smaller cities either the municipalities or the state government provide these services. In Delhi, both the municipal corporation and the Delhi provincial government provide PHC services through their own independent clinics.[28] Financing for urban PHC comes from the central, state, and urban local bodies. Such fragmentation in delivery and financing is observed in several major cities in the region and contributes to inefficient use of health resources and obscured lines of accountability.

Urban local bodies represent the level of government closest to urban communities and therefore have the best chance of understanding and being responsive to local needs. Constitutional amendments in several south Asian countries recognise urban local bodies as the third tier of government and have mandated these bodies a set of specified functions, including functions of public health. However, various factors have undermined the ability of urban local bodies fulfil their health mandate.[29,30] Administrative decentralisation has not been accompanied by adequate financial decentralisation. Urban local bodies remain dependent on higher levels of government for their finances and have little power to generate their own revenues through taxes. Urban local governments do not have the human resources and technical capacity to effectively execute their responsibilities. Overlapping roles with state or provincial governments are another challenge. Some key functions, such as town planning, which has important implication for public health, continue to be retained by state or provincial governments; even state or provincial health departments have restricted capacities in this regard. State and central level agencies involved in aspects of urban development, such as city planning, slum redevelopment, and sanitation, have inadequate engagement with urban local bodies or leave them out of this process.[31]

Improving governance of urban health systems in south Asia requires action on several fronts. First, it is important to empower urban local bodies so that they have sufficient technical human resource capacity to effectively take responsibility for the health of communities in their jurisdiction. However, this empowerment needs to be within the stewardship of the state health ministry and involve adequate support to build local government capacity. One example is the city of Chennai in India, where the supportive role of the state health department enhanced the capacities of the Greater Chennai Corporation (panel). In Sri Lanka, the responsibility of providing health care to urban populations is a function of the municipal or urban council, and in many instances involves collaboration between the national health ministry and the respective local authority. When a local authority is unable to provide services, the responsibility might be transferred to the Ministry of Health, thus providing a safety net for ensuring service provision.

A second area for action involves ensuring that urban local bodies have adequate financial resources, and have more efficient use of resources, with oversight from higher levels of government. One way to achieve this is through earmarked funds for health from states or provinces, retaining specified shares of local government revenues, and health taxes that local governments can administer. Opportunities for increasing health revenues through such measures can be seen in South Africa, Brazil, China, Nigeria, and the Philippines.[30] Kerala state

Panel: Municipality successes in urban local bodies

Municipalities in south Asian cities are the third tier of governance (the federal and state being the other two) and are generally accountable for public health, water, sanitation, and urban planning, among other functions. Although muncipalities have variable ability to delivery services, there are notable successes.

- Mumbai, India: Dharavi is a sprawling slum in the heart of Mumbai with an area of just over 2·1 km² and a population of about one million. This slum is one of the most densely populated areas in the world. When the COVID-19 pandemic reached Dharavi in April, 2020, the expectation was that this area would turn into a hotspot for SARS-CoV-2 infection and COVID-19 disease. Due to the efforts of the city municipality, Brihanmumbai Municipal Corporation (BMC), the COVID-19 outbreak in Dharavi was quickly controlled and infection rates remained low throughout the pandemic even as they surged in other areas of Mumbai. The BMC undertook action on several fronts to control the pandemic—vigorous contact tracing, strict lockdowns, establishing community clinics, and engaging with local non-governmental organisations and the community.[32] The BMC partnered with civil society organisations and private clinical care providers operating within Dharavi. The BMC collaborated with local community leaders and community organisations to build trust among residents. Community volunteers (so-called COVID warriors) supported BMC's effort in supplying containment zones with food and medicines, and in screening efforts.
- Rajshahi, Bangladesh: the city of Rajshahi is the fourth largest metropolitan city of Bangladesh in terms of population and total area. This city has earned global recognition for the efforts of the Rajashai City Corporation in reducing pollution levels.[33] Between 2014 and 2016, PM_{10} levels fell by 67%, which is the biggest drop on record among the world's cities. Several factors are responsible for this situation: a substantial tree planting drive; introducing battery-powered rickshaws replaced petrol-powered rickshaws, which is the main means of transport; banning large trucks from the city centre; constructing pavements to reduce dust; and upgrading brick kilns by changing fuel and chimneys.[32,34]
- Jaffna, Sri Lanka: Jaffna city is experiencing rapid urbanisation and the related adverse health problems, such as increases in the rates of non-communicable diseases, injuries, and accidents. Municipal authorities in Jaffna city, in consultation with WHO and the University of Jaffna, decided on a Healthy City approach as the most appropriate method to address this situation in a sustainable manner. At the initial planning meeting the need to develop a public consensus on the Healthy City approach was identified as an important first step. A series of discussions to inform the public and to develop an action plan followed. Initially, five actionable areas were identified in three settings (schools, offices, and public spaces). Subsequently, the team decided to focus on three areas: healthy food and diets, physical activity of riding bikes, and waste management. With the pandemic, COVID-19 prevention and water, sanitation, and hygiene were added to the actionable areas. The initiative provides a platform for multiple stakeholders to work together for better and sustained health. The plan includes making Jaffna a digital healthy city that will potentially facilitate effective evidence-based decision making and efficient governance.
- Chennai, India: Chennai has better health outcomes compared with other cities in India. The Greater Chennai Corporation (GCC) provides an example of how municipalities can be improved .The Health Department of the GCC, like many other municipalities, provides a range of health services, including running primary health centres. The institution has taken a proactive approach to delivering services to disadvantaged populations through outreach services to slum areas for vector control, maternal and child health, family planning, testing water quality and general sanitation.[35] GCC's achievements have been due to a commitment to public health by (administratively) keeping public health separated from medical care, although there is close coordination, a focus on disease surveillance and inter-sectoral collaboration for issues of sanitation; and strong support from professional administrators and technical staff within the GCC and from the state Public Health Directorate.[35]

in India has devolved considerable financial and administrative authority to urban local bodies.[36] In Bangladesh, inadequate health-care capacity of local urban bodies has been supplemented through contracting PHC services from private sector providers (both for-profit and non-profit).[37–39]

Urban local bodies should be the nodal agency that are responsible for planning urban areas, with coordination between urban planning authorities and urban local bodies mandated by legislation. Improving equity in access to services and the social determinants of health should be a key concern of local government action in urban planning. For this, citizen participation in the urban planning process is crucial and should be institutionalised so that communities have a stake in actions to improve urban environments.

Urban health governance in south Asia is also complex due to the large presence of private sector providers in markets for primary care (to a lesser extent in Sri Lanka) and the poor traction that government has over their activities. Historically, private health sector providers in south Asia's cities have operated independently of government oversight and policies. This independence creates a fragmented PHC system, and one where a sizeable proportion of health-care providers are not aligned with government policy objectives. In some

countries, regulatory frameworks for health-care markets have been introduced, yet enforcement remains a challenge. Examples include the Clinical Establishments Act 2010 in India and the Healthcare Commission in Pakistan. However, at least in India's case, regulation has had modest success; only ten states and union territories have implemented the Clinical Establishments Act.[40]

Aligning the private sector with government health goals and reducing fragmentation with urban PHC provision is key, yet challenging. At a minimum this alignment requires establishing institutionalised platforms for dialogue, information sharing, and interaction between the government and private sector providers. In addition, an effective regulatory environment including policy, legal, organisational, and institutional frameworks is necessary for government's capacity to enorce rules.[41]

Research has an important role to play in informing governance arrangements for urban health. These arrangements include: assessments of local government capacities and capabilities; optimal institutional arrangements for health support between state and provincial and local levels of government on earmarking of health funds between levels of government; designing platforms for engaging communities in urban planning; and strategies to get private sector providers to align with health policy goals (panel).

Access to affordable and quality care

Urban areas offer easy geographical access to health-care providers.[5,41] Falling ill places many urban residents, particularly the economically disadvantaged, at risk of financial hardship due to out-of-pocket expenses for health care. Illness results in substantial urban populations in south Asia experiencing catastrophic health expenditures, defined as the share of health in household consumption expenditure of 10% or higher (figure 1). Catastrophic health expenditures range from a high of 16% of the urban population in Bangladesh to 5% in Sri Lanka. Furthermore, out-of-pocket payments are an important cause of individuals falling into poverty in south Asian cities—India (3·8% of urban population), Bangladesh (2·7%), Nepal (2·6%), and a smaller proportion in Sri Lanka (0·19%).[42] Sri Lanka's superior performance in providing financial protection is the result of the country's higher public funding of health (compared with other south Asian countries), and that large proportions of its urban population access government-financed health care. In south Asian cities, publicly financed PHC services are limited to those available through government-operated health facilities, and insurance coverage is low and usually restricted to hospital care.

Increasing public financing of health care is key for achieving universal access to affordable care.[43] South Asian countries have low public financing of health care—0·46% of GDP in Bangladesh, around 1% for India, Nepal, and Pakistan, and nearly 2% for Sri Lanka. As a result, out-of-pocket payments are a large yet regressive source of health-care financing in the region—ranging from 45% in Sri Lanka to more than 73% in Bangladesh.[44] Health-care expenditures place a larger financial burden on the low-income groups, deter individuals from seeking health care, and force financial hardship on the economically vulnerable. Although increasing revenues for health through traditional sources, such as income or general consumption taxes, might not be feasible given the already high income and sales tax rates in south Asia and the size of the informal economy, revenue opportunities through earmarked taxes on alcohol, tobacco, and sugar-sweetened beverages can be acceptable, as evidenced in the Philippines.[45]

Important new ground is also being broken. National tax-funded health insurance programmes have been established in India (Ayushman Bharat–Pradhan Mantri Jan Aarogya Yojana) and piloted in Bangladesh. These programmes currently cover only inpatient care for the poor at public and private hospitals but offer a model for including PHC services.[45,46] Similar types of publicly sponsored insurance for informal and unemployed urban residents covering inpatient and outpatient care exist in China (ie, Urban Resident Basic Medical Insurance), although this care is managed at the municipal level. Other countries have included poor urban residents within the same insurance pool as rural residents (eg, Thailand's Universal Coverage or Colombia's Entidades Promotoras de Salud).[47]

Health-care access and quality

South Asian cities are deeply segregated in terms of access to quality health care. Care provided by qualified clinicians in high-income parts of cities are at a similar level compared with global standards. However, such health care is unaffordable to the many who are economically disadvantaged. One study from the city of Delhi noted that health care seeking outside the home was markedly different for low-income individuals compared with higher-income individuals. For low-income residents, 66% of outpatient visits outside home were to informal providers, despite proximity to formal health care. In contrast, most visits by higher-income residents were to formally trained private health-care providers. Similar segregated care seeking patterns are observed across many of south Asia's cities.[48–50] The few studies on quality of PHC in urban areas report poor average quality of care by private and public sector providers, with issues including not following treatment guidelines, incorrect diagnosis, and unnecessary or harmful prescriptions.[5]

Policy direction to improve quality of care for patients with less financial means is challenging—informal providers are seen as a problem by governments and ignored by health policies that focus on formal sector health workers. One direction for action is to expand

For more on **global health expenditure** see apps.who.int/nha/database

PHC centres to areas of the city where low-income residents live and supplement facility-based health services with outreach services and community engagement. Examples of these initiatives include India's National Urban Health Mission, which focuses on strengthening public sector PHC services for economically vulnerable groups, the Mohalla Clinic programme in Delhi, or the urban public sector in Sri Lanka. However, in cities where there is a strong private sector presence, a focus only on public sector provision will have a small effect on coverage and financial hardship. Another model for providing low-income urban communities with health care is to contract non-governmental organisations to deliver health-care services through public–private partnerships. The Urban Primary Health Care Project in Bangladesh is an example of this approach.[39,51]

Engaging with informal providers, because of their ubiquity in health-care markets for the low-income individuals, is also important.[52] This engagement can take several forms ranging from convening regular meetings to discussing local health issues, providing guidance on referrals, and building capacity for better health-care quality.[48–50] There is also the larger issue of limited agency that south Asian governments have in proving quality of care in urban areas due to the large private sector, which operates without government oversight. As such, simple interventions like more training or improving facility infrastructure, or increasing oversight will not be effective. System interventions at the macro or meso levels will likely have more success in improving quality at scale.[48,49]

Strategies to improve access to quality care and reduce financial hardship among low-income groups will benefit from research. Although much work has been done on documenting issues related to coverage, quality, and financial hardship related to urban health services, what is missing is experimentation with strategies that can effectively address these issues. Further, across cities in the region, policies and programmes continue to be implemented with the aim of increasing access to quality and affordable health care; however, little is known about the successes and failures of these programmes.

Community-based PHC

Community-based PHC approaches give salience to empowering communities.[50,53,54] These initiatives encompass a wide range of approaches to community engagement, such as involving local leadership in planning and management of health activities; supporting women's groups in participatory learning and action; and community participation in monitoring and accountability.[55] Some countries like India, Bangladesh, and Sri Lanka have established formal mechanisms for involving poor urban communities. In India, the National Urban Health Mission, a central government scheme, has strategies for engaging slum urban communities through health facility committees, community health workers, and women's health groups tasked with planning, organising, and facilitating community-level health services and generating community awareness.[56,57] In Sri Lanka, community engagement in urban areas has taken the form of government-organised community health workers who provide health services to designated urban communities; mothers groups organised within the community; hospital development committees; and grievance handling mechanisms at public health facilities. In Bangladesh, community groups and other mechanisms for engaging urban communities are primarily led by civil society organisations.

The potential gains from engaging urban communities have not been fully explored or utilised in south Asia (panel). In many government programmes, community engagement activities tend to be poorly implemented, and therefore well intentioned policy initiatives do not deliver their promises. Moreover, urban community engagement models tend to be replicas of their rural counterparts, but they must reflect the needs of urban dwelling populations to be effective. Further research is necessary to understand optimal community engagement strategies for urban areas, particularly initiatives for low-income populations.

Multi-sectoral action on health

Multi-sectoral action involves collaborative approaches that span across various ministries, government agencies, and other relevant stakeholders with a common goal of improving population health.[58] Strategies to operationalise multisectoral action in the context of urban health include health in all policies (HiAP) and healthy cities.[58] HiAP systematically takes into account the health implications of all policy decisions to improve population health and health equity; Smart City initiatives have at their core comprehensive policies and plans for improving the quality of urban life, including health, sanitation, access to safe water, and urban planning.

National policies in some south Asian countries have also articulated the need for a comprehensive approach to health in urban areas. For example, India's NITI Aayog, the country's premier government think tank, calls for every Indian city to become a healthy city by 2030 through a convergence of multisectoral efforts at the intersection of spatial planning, public health, and socioeconomic development.[59] Pakistan's National Health Vision advocates for similar HiAP approaches.

The operationalisation of multisectoral action for urban health is rare in the region. In India, the Smart Cities Mission (2015–23) aims to promote core infrastructure and technological solutions in 100 cities with the goal of ensuring a decent quality of life to their citizens. These include projects focused on adequate water supply, electricity, sanitation, health, education, and telemedicine, etc.[60] Other cities in Bangladesh, Pakistan, and Nepal have also undertaken efforts to create healthy cities. In Sri Lanka, the Jaffna Healthy City Programme (panel), for

example, introduces opportunities for healthy choices such as increased physical activity, and improved hygiene and reduced waste production at city schools, workplaces, and public spaces (panel 2).[61]

Assessments of Smart City initiatives reveal important lacunae with respect to urban PHC.[62] For one, the projects executed as part of Smart City programmes comprise a spectrum of urban health-related projects; however, there is an absence of a cohesive or comprehensive approach to improving urban PHC or health.[63] Indeed, one assessment of India's Smart City programme revealed that health and education received the lowest levels of funding, compared with sectors, such as energy, mobility and parking, and water.[63] At the core of inter-sectoral action is effective city planning. Although many of south Asia's cities have masterplans that represent integrated planning, often these plans are not fully executed because of complexities related to multiple levels of government, and deficits in decision-making authority, resources, and execution capacity.[64] Further, there is little participation of citizens, particularly the urban poor, in the planning process, which divorces city planning from citizen needs.

Conclusions

In the decades to come south Asia's achievements in health will be increasingly driven by the health of its cities. The region's cities face diverse challenges in achieving better health, particularly for low-income residents. Orienting urban health systems towards PHC offers a tested strategy to address the diversity of challenges faced by cities in south Asia. New context-specific models of urban PHC are necessary for south Asian cities to ensure that low-income residents have access to affordable and quality health care and anticipate future health needs related to non-communicable diseases, population aging, and migrant communities. Both research and policy experimentation have an important role in identifying these new models of urban PHC.

Contributors

All authors were involved in the design of this paper. KDR, AM, and SH were involved with identifying and analysing data. All authors were responsible for drafting and editing the paper.

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