

Rural Health Scenario – Role of family medicine: Academy of Family Physicians of India Position Paper

Pratyush Kumar, Raman Kumar¹

Department of Geriatrics, Patna Medical College Hospital, Patna, Bihar, ¹Academy of Family Physicians of India, New Delhi, India

ABSTRACT

Half the world's people currently live in rural and remote areas. About 70% of the world's 1.4 billion people who are extremely poor live in rural areas. The problem is that the majority of healthcare providers prefer to serve in urban areas. Only a comprehensive and systematic approach can address these inequities. India, the largest democratic republic in the world, possesses 2.4% of the world's land area and supports 16% of the world's population. According to census 2011, 68.84% of population resides in rural areas. Nearly 86% of all the medical visits in India are made by rural inhabitants with a majority still traveling more than 100 km to avail healthcare facility, of which 70%-80% is born out of pocket landing them in poverty. A country's approach must systematically and simultaneously address legal coverage and rights, health worker shortages, extension of healthcare protection, and quality of care. Only then can equitable access for all be fully achieved. Those living in rural areas have access to health protection and services that meet the criteria of availability, affordability, accessibility, acceptability, and quality. Family medicine as a broad specialty has its role from womb till tomb. Family medicine is defined as a specialty of medicine which is concerned with providing comprehensive care to individuals and families by integrating biomedical, behavioral, and social sciences. As an academic discipline, it includes comprehensive healthcare services, education, and research. A family doctor provides primary and continuing care to the entire family within the communities; addresses physical, psychological, and social problems; and coordinates comprehensive healthcare services with other specialists, as needed. The practitioners in family medicine can play an important role in providing healthcare services to the suffering humanity. The general practitioner's responsibility in Medicare includes management of emergencies, treatment of problems relating to various medical and surgical specialties, care of entire family in its environment, appropriate referrals, and follow-up. He or she is the first-level contact for the patients and his or her family. Family medicine is the ideal solution to growing rural healthcare challenges. This article is a formal position paper of the Academy of Family Physicians of India.

Keywords: Health, insurance, primary care, Rural, SDGs, sustainable development goals, universal health coverage

Global Rural Health Scenario

Half the world's people currently live in rural and remote areas. About 70% of the world's 1.4 billion people who are extremely poor live in rural areas.^[1] The problem is that a majority of healthcare providers prefer to serve in urban areas. The rural/urban divide is a consistent feature across the world, existing in all regions and within all countries and poses a

major challenge to the nationwide provision of health services. However, the low-income countries suffer the most because of this issue. There are two reasons for this. One is that many of these countries already suffer from acute shortages of health workers – in all areas. The other is that the proportion of the population living in rural regions tends to be greater in poorer countries than in rich ones.^[2]

Globally, it has been found that regardless of their level of economic development, there is a lot of difficulty in achieving health equity to meet the health needs of their population,

Address for correspondence: Dr. Pratyush Kumar, Senior Resident, Department of Geriatrics, Patna Medical College Hospital, Chair - WONCA Rural South Asia. E-mail: pratyush410@yahoo.co.in

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especially of the vulnerable and disadvantaged groups living in rural and remote areas. Approximately half of the global population lives in rural areas, but these areas are served by only 38% of the total nursing workforce and by less than a quarter of the total physician workforce.

Even high-income countries have shortage of health workers in remote and rural areas. In the United States, 9% of registered physicians practice in rural areas where around 20% of the population lives.^[3] France has large inequalities in the density of general practitioners, with higher densities in the south and the capital compared with the center and north of the country.^[4] And in Canada, only 9.3% of physicians work in remote and rural areas where 24% of the population lives.^[5]

According to a report released on April 27, 2015, by the UN International Labour Organisation, global evidence on inequities in rural health protection: 56% of rural residents worldwide are without legal health coverage (defined as protected by legislation or affiliation with a health insurance scheme) – compared with 22% of the urban population. About 83% of Africa's rural population have no entitlements to healthcare, yet the most extreme rural–urban inequities in legal coverage occur in Asia and the Pacific. Reflected in the context of equity and universal health coverage, the report abruptly reminds us that the global community, despite all good intentions, is still doing too little and too late for the health of rural populations.

The report highlights that virtually all rural–urban differences in health staffing, financing of services, and legal coverage occur in rural populations. Health worker shortages are unsurprisingly extreme in rural areas worldwide. Although half of the world's population live in rural areas, only 23% of health workers globally are deployed there, with an estimated 7 million health workers missing globally in rural areas compared with 3 million in urban dwellings. About 63% of the world's rural population do not access healthcare because of underfunding of global health financing, compared with 33% of the urban population. Out-of-pocket payments inequities are, at first glance, relatively smaller globally in rural populations, with lower out-of-pocket payments in rural than in urban populations in Africa, Latin America, and central and eastern Europe. Yet the lower out-of-pocket payments in many countries indicate an exclusion of rural populations from access to healthcare. The harsh reality in rural areas is that what does not exist (e.g., health workers, clinics, transport) cannot be paid for, and therefore no cost accrued.

While 56% of the global rural population lacks health coverage, only 22% of the urban population is not covered. Globally, most deprived of health coverage is the rural population in Africa. The situation is aggravated by extreme health workforce shortages in rural areas impacting on the delivery of quality services: in rural areas, a global shortfall of about 7 million missing health workers to deliver services is observed, compared with a lack of 3 million skilled staff in urban areas. Due to these rural health

workforce shortages, half of the global rural population lacks access to urgently needed care. Deficits in per capita health spending are twice as large in rural areas as in urban areas. The deficits observed result in unnecessary suffering and death, as reflected, for example, in rural maternal mortality rates that are 2.5 times higher than urban rates. Globally, the highest levels in rural maternal mortality are found in Africa.

Only a comprehensive and systematic approach can address these inequities. A country's approach must systematically and simultaneously address legal coverage and rights, health-worker shortages, extension of healthcare protection, and quality of care. Only then can equitable access for all be fully achieved. Those living in rural areas have access to health protection and services that meet the criteria of availability, affordability, accessibility, acceptability, and quality.

Rural Health Scenario in South Asia Region

South Asia is not only linked through geographical boundary but also together shares some common history, heritage, climate, and cultural affinity. It is mostly dominated by a developing economy with projected regional growth of 7% in 2015 and expected to increase to 7.6% by 2017.^[6] According to the World Bank, 70% of the South Asian population and about 75% of south Asia's poor live in rural areas and most rely on agricultural activities for their livelihood. Overall life expectancy at birth is 67.8 years compared with 71.2 years worldwide. Economy and education are closely related to health outcomes. World Bank realized this and gave a recommendation to improve poor quality of education in south Asia region. Low doctor–patient ratio, poor access to health services, and low utilization of health services make it difficult to achieve our health goals.^[7] South Asian countries on Human Development index (HDI) index fair poorly when compared globally. Of 187 countries Sri Lanka is at 87th rank, Maldives 104th rank, India 135th rank, Bhutan 136th rank, Bangladesh 142nd rank, and Pakistan at 146th rank. There is a wide gap between World HDI – 0.682 and south Asia – 0.548.

Home to one-quarter of world's population, south Asia is a high-priority region for many public health concerns.^[8] About 78% of expectant mothers throughout the developing world receive at least one antenatal checkup; this number falls to 68% in south Asia, and it is compounded by lack of health services and malnutrition leading to one of the highest maternal mortality in the world.^[5] South Asians are also more prone to develop heart diseases and diabetes than the general population.^[9] Burden of communicable disease HIV/AIDS, tuberculosis, and malaria in south Asia is very high. Development and resurgence of drug resistant cases make it more difficult to manage. Poor funding, low skilled staff, lack of infrastructure, and poor access to diagnostic and treatment facility either due to fear or lack of awareness have only helped the disease to spread. Noncommunicable diseases (NCDs) have put huge burden on health system. NCDs account for sizeable

proportions (from one-third to two-thirds) of all death and disability in the region.

There have been positive sides too. From 2004 to 2008, the annual per capita health spending grew from \$11 to \$17 in Bangladesh, from \$27 to \$43 in India, from \$17 to \$20 in Nepal, from \$17 to \$24 in Pakistan, and from \$44 to \$81 in Sri Lanka.^[3] Over the years, significant improvements were noted on various health parameters but these gains were distributed unevenly. According to global burden of disease reports 2016,^[10] overall progress in reducing mortality and prolonging life since 1970 succeeded in decreasing premature death and disability from most communicable, newborn, nutritional, and maternal causes, with the exception of HIV/AIDS. Rural areas have not achieved parameters such as life expectancy, immunization rates, maternal health, malaria incidence, and access to almost all health services when compared with urban areas. In most countries of the region, substantial progress has been made in reducing risks such as childhood underweight, suboptimal breastfeeding, and vitamin deficiencies, such that their burdens have been at least halved in the past 20 years. The percentage of people with life expectancy at birth below 60 declined from 18% to 7% between 2001 and 2011.

The proportion of people using improved sanitation has increased by 19 percentage points from 1990 to 2012 (compared with 15 points for the world as a whole).^[11] The proportion of people who practice open defecation has dropped by 28 percentage points over the same period, a faster rate of reduction than in any other region.

Apart from malnutrition, hygiene and sanitation also need to be addressed in best possible way to improve health standards of people living in south Asia region.

Although their relative burden has substantially declined, communicable, newborn, nutritional, and maternal causes remained the top drivers of health loss in most south Asian countries. Between 1990 and 2010, disease burden from many noncommunicable causes increased, especially ischemic heart disease, stroke, diabetes, musculoskeletal disorders (including low back pain and neck pain), and major depressive disorders. Many south Asian countries have suffered from increasing levels of health loss as a result of self-harm, especially India and Pakistan.

The rapid shift in disease burden place poor people in low- and middle-income countries at high risk of not having access to appropriate services and incurring payments for healthcare that push them further into poverty.

In South Asia, the top 10 causes of premature death and disability and percentage changes between 1990 and 2010 with significant reduction of 44% in lower respiratory infections, 31% of preterm birth complications, 55% of diarrheal disease, 12% of neonatal encephalopathy, 25% of tuberculosis, 21% of neonatal sepsis, and 3% of iron deficiency anemia were seen. During these years,

dramatic rise in incidence and prevalence of certain diseases was also noted. Ischemic heart disease increased by 73%, chronic obstructive pulmonary disease by 16%, and road injury by 58% which may be linked with changing lifestyle and ill effects of urbanization. Urban cities are a recent development which is potential unnatural phenomenon.

There have also been changes in the risk factors for premature death and disability over these years. Dietary risks increased by 70%, smoking by 21%, high blood pressure by 68%, occupational risks by 26%, ambient particulate matter air pollution by 8%, and high fasting plasma glucose by 106%. Reductions were noted in household air pollution by 27%, childhood underweight by 69%, iron deficiency by 10%, and suboptimal breastfeeding by 55%. Poor educational status leads to nonutilization of scanty health services and increase in avoidable risk factors.

Immunization is one of the most cost-effective, life-saving health interventions for children, with results being real and long-lasting. Roughly a third of deaths in children can be prevented by vaccination. Two of the world's three remaining polio-endemic countries – Pakistan and Afghanistan – are in this region which is a point of concern.

Apart from all these out-of-pocket expenditures due to exploding healthcare costs and dependency over private corporate health sector, large numbers of uninsured and underinsured are proving to be a deterrent in providing quality and affordable healthcare to all rural people. This has also made people to look for cheaper alternate ways and traditional healers have found their relevance.

Poor literacy status leads to nonutilization of scanty health services and increase in avoidable risk factors. The rapid shifts in disease burden place poor people in low- and middle-income countries at high risk of not having access to appropriate services and incurring payments for healthcare that push them deeper into poverty. Recent data suggest that only 20% of all the illnesses were treated in public healthcare facilities and 80% in private sector facilities which is alarming. Primary health centers (PHCs) and community health centers (CHCs) are providing only preventive healthcare services. For curative services, private corporate sectors are dominating the “health market.”^[12]

Rural Health Care in India

India, the largest democratic republic in the world, possesses 2.4% of the world's land area and supports 16% of the world population. According to census 2011, 68.84% of population resides in rural areas. Nearly 86% of all the medical visits in India are made by ruralites with a majority still traveling more than 100 km to avail healthcare facility, of which 70%–80% is born out of pocket landing them in poverty.^[14]

Healthcare in rural areas has been developed as a three-tier structure based on predetermined population norms. The subcenter is the most peripheral institution and the first contact point between the primary healthcare system and the community. PHCs comprise the second tier in rural healthcare structure envisaged to provide integrated curative and preventive healthcare to the rural population with emphasis on preventive and promotive aspects. It acts as a referral unit for six subcenters, with four to six beds for inpatients. CHCs forms the uppermost tier with four medical specialists including surgeon, physician, gynecologist, and pediatrician supported by 21 paramedical and other staff supposed to staff each CHC.

In a fast growing economy, importance of healthcare could not be underestimated. There is an immense need to address to rural health challenges and work on solutions. There is a need to fully use the existing health resources in a most efficient manner and also aim to develop infrastructure, rural health workforce, and basic health resources to empower rural health growth.

National health mission has indeed put up a great effort in handling rural healthcare challenges. The thrust of the mission is on establishing a fully functional, community-owned, decentralized health delivery system with intersectoral convergence at all levels, to ensure simultaneous action on a wide range of determinants of health such as water, sanitation, education, nutrition, social, and gender equality.

The availability of manpower and infrastructure is one of the important prerequisite for the efficient functioning of the rural health services. At PHCs, 41.9% of the sanctioned posts of female health assistant/LHV, 46.9% of male health assistant, and 27.0% of the sanctioned posts of doctors were vacant.^[14] Shortfall of allopathic doctors in PHCs was 11.9% of the total requirement for the existing infrastructure. As on 31st March, 2015, 67.5% of subcenters, 89.5% of PHCs, and 95.1% of CHCs were located in government buildings. The rest were located either in rented building or rent-free panchayat/voluntary society buildings. The percentage of subcenters functioning in the government buildings has increased from 50% in 2005 to 67.5% in 2015. The percentage of PHCs functioning in government buildings has increased significantly from 78% in 2005 to 89.5% in 2015. The percentage of CHCs in government buildings has increased from 91.6% in 2005 to 95.1% in 2015. The number of subcenters increased from 146,026 in 2005 to 153,655 in 2015. At the national level, there is an increase of 2072 PHCs by 2015 when compared with that existed in 2005. At the national level, there is an increase of 2050 CHCs by 2015 when compared with that existed in 2005. Despite this, the current numbers are not sufficient to meet their population norm.

Current Challenges

There is a huge disparity in rural healthcare and uneven distribution of health resources. About half of the world's

population lives in rural and remote areas, but this half is served by only one-quarter of the world's doctors and by less than one-third of the world's nurses. This shows how the resources are concentrated in areas inaccessible to rural people.

Rising burden of communicable disease and NCD has put strain on public healthcare resources in south Asian countries where annual expenditure on health is just below 5% of GDP. Low doctor-patient ratio, lack of skilled paramedics, and poor infrastructure have made the road to health a difficult task.

Healthcare administration needs to be strengthened to reduce wastage of healthcare resources and increase access to the same. Awareness and education would be the key to achieve the aforementioned. Healthcare outcomes may not correlate with access to healthcare as there are various other factors detrimental to positive health in rural areas such as compliance to treatment and advices, regular follow-up, dietary and lifestyle modifications, and availability of medications.

The vision of "Health for All" for rural people has faced various roadblocks from lack of bureaucratic, political to local administrative support and delayed, as well as hampered by corruption too.

To overcome this, there is a need to have strong political commitment, strong advocacy from relevant national and international organizations with support of nongovernmental organizations (NGOs), and transparency by use of e-governance. There is a need to explore and use information technology based on needs of common people in most efficient and ethical manner. E-health in coming years has the potential to reduce various health problems and may help in a big way to make quality healthcare more accessible.

Provision for better educational facilities, increasing primary school enrolment, and generating opportunities and employment for rural people will help in fighting against poverty and ignorance. Healthcare insurance coverage needs to be increased as in India only 15% of total Indian population is covered under it. NGOs may also come forward in providing insurances.

There is a need to change the perception and outlook of public health sector. Today, India has the most privatized health system in the world with 72% of health expenditure made in private sector that presently treats 78% of outpatients and 60% of inpatients.^[13]

Out-of-pocket expenditure is a big problem as 80% of population spends in health services from their personal expenses and only 3% of the population, especially in the formal sector, is getting some type of health insurance.

The rate of population growth should be discussed and options to halt it should be discussed considering cultural and regional faiths and beliefs. Although to fulfill all challenges

great determination and funding is necessary which may not be available seeing the current economic outlook of south Asian countries. But still the best way would be to prioritize challenges and work on it.

Role of Primary Care Physicians/Family Medicine in Strengthening Rural Health Care

Family medicine as a broad specialty has its role from womb till tomb. Family medicine is defined as a specialty of medicine which is concerned with providing comprehensive care to individuals and families by integrating biomedical, behavioral, and social sciences.

As an academic discipline, it includes comprehensive healthcare services, education, and research. A family doctor provides primary and continuing care to the entire family within the communities; addresses physical, psychological, and social problems; and coordinates comprehensive healthcare services with other specialists, as needed. The practitioners in family medicine can play an important role in providing healthcare services to the suffering humanity. The general practitioner's responsibility in Medicare includes management of emergencies, treatment of problems relating to various medical and surgical specialties, care of entire family in its environment, appropriate referrals, and follow-up. He or she is the first-level contact for the patients and his or her family.

Family physicians deliver a range of acute, chronic, and preventive medical care services. In addition to diagnosing and treating illness, they also provide preventive care, including routine checkups, health risk assessments, immunization and screening tests, and personalized counseling on maintaining a healthy lifestyle.

In a country with large population spread over to rural sector, the need for adequately trained, properly qualified, competent general practitioners is acutely felt. Family physician as a specialty has not been explored and used to its potential. These courses have started up here, but despite being highlighted in the 2002 National Health Policy operate on a sporadic basis and on a scale too small, and without the necessary support to make an impact. Supplemental policy initiatives to make this post interchangeable with the post of any of the basic specialists sanctioned for CHC would also expedite the rolling out of this strategy.

It could be considered a rare paradox where family medicine specialists who are ideal and willing to serve in rural areas in government primary and secondary health centers have not been recruited and their potential not used. There is an urgent need to address the shortage of healthcare workforce. There is need to develop policies which help in curbing rural-urban disparities and uneven distribution of resources. There is a need to organise a primary care team suitable for resource-constraint setting rural and remote areas. Primary care team may comprise a doctor, nurse, and health workers should be explored and utilised

efficiently. The expertise of AYUSH doctors in strengthening rural health care.

Poverty has always been the biggest hurdles and cause of poor performance in various health parameters. Generalist medical care with good referral policy may be the best way forward in curbing out-of-pocket expenditure. It will also reduce extra burden on apex institutes providing specialized care and lead to cost-efficient generalist care.

Education for primary care physicians is an integral part in improving overall healthcare. Training and skill development in various subspecialties may help them in upgrading their knowledge and providing more comprehensive care at primary level. Skill development may include but not limited to life-saving skills such as basic and advanced life support, primary care surgically skill, and emergency obstetrical skill. In the field of diagnostics, basic ultrasonography and echo cardiography may be very helpful reducing unnecessary referral and providing low-cost quality care at point of first contact only.

There are various factors that lead to poor growth in the field of rural healthcare. Rural health care issues are compounded by out-of-pocket expenditure, ignorance of government services, underutilization or wastage of healthcare resources, poor organizational support, virtually nonexistent professional networking, and lack of infrastructure to match the demands of the rising population.

Despite so many hurdles and challenges, family medicine has been successful in creating its own space. Family medicine is the ideal solution to growing rural healthcare challenges.

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