Medicine and Society

Primary or specialist medical care: Which is more equitable? A policy brief

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ABSTRACT

Background. Equity in health and equitable access to healthcare has been at the core of health policy in India. The key policy challenge has been how to make that possible? Various health insurance schemes such as the Rashtriya Swasthya Bima Yojana and Arogyasri seek to improve poor people's access to specialist medical care in the public and private sectors. On the other hand, access to primary medical care has been left to the supply side interventions.

Methods. We did a focused review of evidence on equity aspects of primary medical care versus specialist medical care. We selected relevant publications from the Cochrane Library, PubMed and Google Scholar searches and articles snowballing out of them.

Results. Higher primary care physician-to-population ratio is invariably associated with better health outcomes. Primary care may partly protect the poor from adverse effects of income inequality on health status. On the other hand, populations do not necessarily benefit from an overabundance of specialists in a geographical area.

Conclusions. Three key policy lessons emerge from this review. First, states should strengthen primary medical care by upgrading health centres. Second, a family health protection plan should be introduced as a demand side intervention to deliver primary care through health centres, non-profit and for-profit clinics. Third, postgraduate courses in family medicine should be introduced for a balanced development of the specialty of primary care *pari passu* other specialties.

Natl Med J India 2017;30:93–6

INTRODUCTION

Successive governments have reiterated the national goal to improve access to medical and healthcare to all, especially the poor. Achievement of this objective has been a key policy challenge. To start with, primary healthcare (PHC) was pursued as a key strategy since the first five-year plan (FYP).[1] Over the years, extensive infrastructure has been built for PHC. Expansion of rural health infrastructure was a key component of the minimum needs programme (MNP) introduced during the fifth FYP. PHC was one among the seven basic minimum services identified for priority attention during the ninth FYP. However, performance in provision of PHC has been lacking.[2] Disappointing healthcare delivery and the search for feasible solutions led to the gradual adoption of demand side interventions. By the beginning of this century, several health economists and reports from the WHO advocated protection from catastrophic out-of-pocket payments.[3–6] These concerns have been addressed through health insurance schemes such as the Rashtriya Swasthya Bima Yojana (RSBY) and Arogyashri. These healthcare financing schemes did, to some extent, improve poor people's access to specialist medical care, mostly in the private sector with primary medical care left to languish under the existing supply side infrastructure in the public sector.

An important policy question is the comparative efficacy of primary versus specialist medical care towards health equity. The Director General of WHO has observed that many health systems have lost their focus on fair access to care, their ability to invest resources wisely, and their capacity to meet people's needs and expectations.[7] In this context, there is a need for Indian health policy to refocus on enhancing access to primary care.

METHODS

We aim to summarize evidence on the relationship of primary versus specialty medical care with health equity. We browsed the Cochrane Library under the Effective Practice and Organisation of Care (EPOC) Group—Effective practice and health systems–Delivery of healthcare services/Financial arrangements topic. The PubMed database was searched using the expression '(Health Services Accessibility) AND (Primary Health Care OR Primary Care) AND (Specialty Care) AND (Income Inequality OR Health Equity OR Socioeconomic Factors) AND (Health Indicators OR Population Health)'. All titles using these search strategies were browsed to first shortlist prospective articles, then browse their abstracts, narrow down to potentially relevant articles, and finally study them to identify relevant articles. Google Scholar was searched using expressions such as 'Effect of primary vs specialist care on population health status', 'Primary care doctors and population health', which yielded several useful references. Additional publications found from the references cited in the above articles were studied to inform the present review. Articles were considered relevant if they dealt with core attributes and definition of primary and/or specialty care, and empirical studies indicating access and equity aspects of primary versus specialty care. Professional opinions and logical arguments about the pathways linking primary care to access and equity were excluded. The searches were made during 2015 and updated as of February 2016.

RESULTS

Definition of primary care

Primary medical care or primary care refers to first-contact medical care for majority of health problems, from a regular source, and referral to appropriate specialists when needed. According to the

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Institute of Medicine (IOM), USA, primary care is the provision of integrated, accessible healthcare services by clinicians who are accountable for addressing a large majority of personal healthcare needs, developing a sustained partnership with patients, and practising in the context of family and community.[8] Barbara Starfield, a widely recognized public health expert on primary care, noted that the IOM definition did not explicitly include first-contact care, which is an important attribute of primary care. Moreover clinical accountability applies to all kinds of providers and is not unique to primary care. Accordingly, four key attributes of primary care are: (i) first-contact care; (ii) longitudinality (continuity) of care; (iii) comprehensiveness; and (iv) coordination.[9] We would like to distinguish primary health care (PHC) as not being the same as primary care. PHC is broader in scope and primary care is its medical care component. In the 2008 *World Health Report*, WHO identified distinctive features of primary care as (i) person-centred care; (ii) comprehensive and integrated response to patient's problems; (iii) continuity of care; and (iv) a regular entry point and trusted provider.[10] Patient-centredness respects and responds to the individual patient's preferences, needs and values. Greater familiarity afforded by long-term association helps general practitioners (GPs)/family medicine practitioners (FPs) appreciate the entirety of a patient's medical situation. Hence, patient-centredness can be viewed as quality of primary care resulting from longitudinal continuity. Thus, various conceptions of primary care essentially centre on Starfield's four core attributes (see box). In addition to GPs/FPs, certain specialists may also provide primary care.[9,12]

Attributes of specialty care

Specialists are highly skilled in the range of diagnostic/treatment categories related to their field. They may have skills in other areas. However, most specialists tend to concentrate their efforts within the domain of their specialty. Specialists rarely provide out-of-domain care. They do not usually assume principal care responsibility and are not likely to provide preventive services such as immunization. Considering that patients would resort to various specialties depending on the nature of their complaint, specialists do not usually develop a majority-of-care relationship with their patients, except in a few specialties such as oncology, pulmonology and rheumatology.[11]

Evidence on primary versus specialty care

Several studies indicate that primary care-oriented health systems are more effective, efficient and equitable than specialist-dominated health systems. For example, a study in England, using 99 Health Authorities data for 1999, showed that after adjusting for inequality and limiting long-term illness, each unit of increase in GPs/10 000 population was associated with 14.4% and 10.6% reduction in hospital admissions for acute and chronic conditions, respectively. One more GP/10 000 population was associated with about 3.3% decrease in all-cause mortality in the 15–64 years age group.[13] Another study of health data for 1970 to 1998, from 18 developed countries, showed that the strength of the primary care system was inversely associated with all-cause mortality, all-cause premature mortality, and several cause-specific premature mortalities. Controlling for per capita income, physicians/1000 persons, average number of ambulatory care visits, etc. reduced the effect size but the statistical relationship remained significant.[14]

Macinko and colleagues[15] selected studies in the USA, examining the association of primary care supply with health outcomes, while controlling for relevant ecological variables, assessing effects in more than one state; and presented sufficient data to establish the effect of primary care on the health outcomes in question. Their selection based on these criteria had 17 peer-reviewed studies. Only two[16,17] of the 17 selected studies found no evidence of a positive impact of primary care physician (PCP) supply, and these were studies of hospitalization rather than health outcomes. Most of the remaining 15 studies are summarized below.

A study of interstate variations in the USA, using data for 1990, showed that the PCP-to-population ratio had an independent and positive impact on health indicators. When demographic, income and health system covariates were controlled for, a higher PCP ratio reduced the magnitude of the adverse impact of income inequality on health outcomes.[18] Another study limited to urban areas in the USA, controlling for income inequality, and other socioeconomic covariates did not find any significant relationship between the PCP ratio and mortality.[19] These relationships were further explored using the 5-year time series (1980, 1985, 1990 and 1995). In weighted multivariate regressions, both contemporaneous and time-lagged income inequality measures were significantly associated with all-cause mortality. Contemporaneous and time-lagged PCP ratios were associated

Core attributes of primary care

First contact

This ensures access to care within easy geographical proximity, after hour availability. General practitioners are often the point of entry into needed specialty care.

Comprehensive care

This provides solutions to a broad range of medical conditions that occur frequently enough for practitioners to maintain their competence. The range of services should consist of a core that is applicable to every community plus locally relevant ones.

Continuity of care

The usual source of care has a sustained relationship over time. It deals with the presenting problem, keeping in sight the totality of a person's health profile (longitudinal continuity of care). When more than half of ambulatory visits by a patient are to the same physician, the latter is said to have a majority-of-care relationship with the former.[11]

Coordination of care

A primary care provider identifies the need for specialty care, manages interface with specialists and assumes advocacy role for the patient when needed. For healthcare financing, the primary care provider may act as a gatekeeper to specialty services, except where self-referral or direct access is appropriate.

with lower all-cause mortality, whereas specialty care measures were associated with higher mortality.[20] In another article based on the same study, the authors reported that the magnitude of primary care effect on mortality reduction was higher for blacks compared with whites.[21]

The relationship of PCP- and specialists-to-population ratios have been explored further using 1996–2000 data for 3075 American counties. In multivariate models controlling for population characteristics such as income and education, a higher PCP ratio was associated with lower all-cause, heart and cancer mortality. This relationship was robust and statistically significant across most models. On the other hand, the relationship of specialist-to-population ratio and mortality was not significant in most models. Where the relationship was significant, the specialists-to-population ratio was associated with higher mortality.[22] Another analysis of 1990 data for the same 3075 counties showed that the PCP ratio was significantly associated with lower all-cause mortality. Counties in the lowest three quartiles of primary care had approximately 2% higher mortality than those in the reference category.[23] Yet another study repeated the analysis stratified by rural and urban areas. Rural counties with higher availability of primary care experienced lower all-cause, heart disease and cancer mortality. For urban areas the relationship was in the opposite direction.[24]

Although ecological studies suggest that primary care attenuates the adverse impact of income inequality on population health, it does not necessarily follow that the primary care effect works at the individual level. To examine this relationship, Shi and Starfield[25] did a mixed-level analysis. They used individual level data from the 1996 Community Tracking Study (CTS) household survey of 60 randomly selected communities in the USA. This dataset provided individual-level measures of self-rated health status and sociodemographic characteristics. Corresponding state-level data were used for ecological variables of primary care availability and income inequality. Controlling for income inequality and sociodemographic characteristics, an additional PCP/10 000 persons was associated with a 2% increase in the odds of reporting good/excellent health. In another analysis based on the same data sources, Shi, Starfield and others[26] used a measure of actual primary-care experience of individuals in the CTS as the independent variable instead of PCP/10 000 persons. Good primary care experience, in particular enhanced accessibility and continuity, was associated with better self-reported health both generally and mentally. Good primary care experience was able to reduce the adverse association of income inequality with general health although not with mental health, and was especially beneficial in areas with highest income inequality. Socioeconomic status attenuated, but did not eliminate, the effect of primary care experience on health.

Several studies have compared accessibility of PCPs versus specialists. Analysis of data from the 2000 wave of the European Community Household Panel (ECHP) and similar national surveys around 2000 from other developed countries found that in most countries, GP visits are equitably distributed across income groups, and any significant inequity that emerges is often pro-poor. The pattern is different for specialist visits: in all countries, the study found significant pro-rich inequity in the likelihood of contacting a specialist.[27] Another study based on national health surveys in nine European countries found that utilization of primary care was fairly equally distributed between educational groups. On the other hand, people with higher education tended to use specialist services significantly more often.[28]

Analysis of the US Medical Expenditure Panel Survey for 2004 showed that across all five income levels, FPs had contact with 42.5% to 44.8% of adults; and there was no statistically significant decrease in probability of contact for less-affluent groups. PCPs, especially FPs, deliver a proportionally higher share of ambulatory care to disadvantaged populations. FPs constituted the only clinician group that does not show income disparities in access.[29] Data from a mail-return survey of Oregon's food stamp programme showed that children with both insurance and primary care reported better access to healthcare. Unmet medical need was higher among insured children without access to primary care. Unmet medical need was even higher among uninsured children with access to primary care. Thus, access to primary care and health insurance coverage are both critical for fulfilment of healthcare needs of low-income groups.[30]

A systematic review of specialist outreach clinics in primary care settings showed that simple outpatient style of specialist outreach may improve access, but there was no evidence of its impact on health outcomes. On the other hand, specialist outreach as part of comprehensive multifaceted interventions involving collaboration with primary care, education or other services was associated with improved health outcomes, and less use of inpatient services.[31]

In 2004, Mexico introduced a non-contributory health insurance called Seguro Popular. The scheme reduced overall catastrophic health spending in rural areas but the impact varied according to demographic characteristics of households as well as the type of accessible healthcare facility. In rural areas served by inadequately staffed health facilities, the programme did not reduce out-of-pocket expenditure. On the other hand, financial protection was effective in areas served by larger healthcare facilities. Catastrophic expenditures were found to have fallen sharply for rural households with access to well-staffed facilities, but little effect for rural households depending on poorly staffed facilities. Thus, the effect of public health insurance on out-of-pocket expenditure for emergency medical care depended strongly on the strength and quality of primary care infrastructure.[32]

Policy implications

Available evidence shows that specialty care by itself does not alleviate adverse health effect of income inequality. This fact takes away the rationale of protecting the poor from impoverishment with the help of catastrophic health insurance giving access to specialty care. Customary extolment of primary care is of no use in the midst of poorly organized, sub-optimally managed health systems and ad hoc financing policies serving expansion of specialist medical care.

Three key policy interventions emerge from this review. First, states should strengthen primary medical care by appropriately upgrading the primary health centres and community health centres. Second, the non-profit and for-profit private sectors should be harnessed to expand access to primary care by appropriate demand side healthcare financing schemes. For example, a family health protection plan should be introduced which has primary medical care at its core. The existing government-financed health insurance schemes should be reoriented around the family health protection plan. In other words, medical and health insurance schemes for the poor and needy should start with primary medical care for the family at its core and extend to specialist services depending on financial feasibility and specific state policy, instead of being the other way around. Third, postgraduate courses in family medicine including maternity and child health should be

introduced to prepare adequate human resources for a balanced development of primary care specialty *pari passu* other specialties.

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