Gac Sanit. 2012;xxx(xx):xxx–xxx

Informe SESPAS

Primary care: an increasingly important contributor to effectiveness, equity, and efficiency of health services. SESPAS report 2012

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ARTICLE INFO

Article history:
Received 13 January 2011
Accepted 25 October 2011
Available online xxx

Keywords:
Primary health care
Primary care
Evaluation of effectiveness and equity
Health systems

ABSTRACT

As of 2005, the literature on the benefits of primary care oriented health systems was consistent in showing greater effectiveness, greater efficiency, and greater equity. In the ensuing five years, nothing changed that conclusion, but there is now greater understanding of the mechanisms by which the benefits of primary care are achieved. We now know that, within certain bounds, neither the wealth of a country nor the total number of health personnel are related to health levels. What counts is the existence of key features of health policy (Primary *Health* Care): universal financial coverage *under government control or regulation*, attempts to distribute resources equitably, comprehensiveness of services, and low or no copayments for primary care services. All of these, *in combination,* produce better primary care: greater first contact access and use, more person-focused care over time, greater range of services available and provided when needed, and coordination of care. The evidence is no longer confined mainly to industrialized countries, as new studies show it to be the case in middle and lower income countries. The endorsements of the World Health Organization (in the form of the reports of the Commission on Social Determinants of Health and the World Health Report of 2008, as well a number of other international commissions, reflect the widespread acceptance of the importance of primary health care. Primary health care can now be measured and assessed; all innovations and enhancements in it must serve its essential features in order to be useful.

Atención primaria: una creciente e importante colaboradora en la eficacia, la equidad y la eficiencia de los servicios de salud. Informe SESPAS 2012

Palabras clave:
Atención primaria de salud
Atención primaria
Evaluación de la eficacia y la equidad
Sistemas de salud

RESUMEN

Hasta 2005, la literatura sobre los beneficios de los sistemas de salud orientados a la atención primaria ha sido consistente en mostrar una mayor eficacia, una mayor eficiencia y una mayor equidad. En los siguientes 5 años nada ha cambiado esta conclusión, pero ahora comprendemos mejor los mecanismos por los que actúa. Sabemos que, dentro de ciertos límites, ni la riqueza de un país ni el número de profesionales de la salud se relacionan con los niveles de salud. Lo que cuenta es la existencia de las características clave de la política de salud (atención primaria de salud): la cobertura financiera universal bajo el control del gobierno o regulada, los intentos de distribuir los recursos equitativamente, la integralidad de los servicios, y bajos o nulos copagos para los servicios de atención primaria. Todos estos, combinados, producen una mejor atención primaria: un mayor acceso y uso del primer contacto, más atención centrada en la persona a lo largo del tiempo, mayor gama de servicios disponibles cuando sean necesarios, y la coordinación de la atención. La evidencia ya no se limita principalmente a los países industrializados, pues nuevos estudios también lo demuestran en países con ingresos medios y bajos. El aval de la Organización Mundial de la Salud (los informes de la Comisión sobre Determinantes Sociales de la Salud y el Informe de Salud Mundial de 2009), así como una serie de comisiones internacionales, reflejan la aceptación generalizada de la importancia de la atención primaria de salud. Ahora, la atención primaria de salud puede ser medida y evaluada; todas las innovaciones y mejoras en ella deben servir a sus características esenciales con el fin de ser útil.

Introduction

Evidence of the value of primary care in health systems continues to accumulate. A 2005 review of evidence on the benefits of comprehensive primary care included international comparisons, studies within countries, and studies of the impact of the important features of primary care.[1] Since then, other research and analysis has confirmed the conclusion that strong primary care health systems are more likely to provide better population health, better distribution (more equity) in health throughout the populations, and greater economy in the use of resources. Kringos and colleagues reviewed 85 studies published between 2003 and 2008 for evidence in the areas of governance, economic conditions,

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doi:10.1016/j.gaceta.2011.10.009

Key points

- The evidence on the benefits of a primary care orientation continues to accumulate.
- Primary (health) care can be defined and measured.
- Both systems characteristics (policies) and primary care functions are critical to effectiveness.
- Many countries and areas have adopted standardized primary care measurement in their health reform efforts.
- All innovations and enhancements to primary care should be evaluated with regard to the extent to which they foster the achievement of the specific functions of primary care.

workforce development, access, continuity of care, coordination of care, comprehensiveness of care, quality of care, efficiency of care, and equity in health.[2] They found robust evidence that primary care contributes to overall health system performance and health.

Within the most recent ten years, the confusion between primary *health* care (PHC) and primary care (PC) has also been resolved. PHC involves aspects of health policy and health care systems that create the conditions under which clinical primary care can thrive. The critical system functions are universal financial access, equitable distribution of resources according to need, low or no copayments, and comprehensiveness of services.[3] The critical clinical ("behavioral") functions are first contact access and use, person-focused over time, comprehensiveness of services available and delivered, and coordination through information transfer and recognition. Compelling evidence of the benefits of health services systems oriented to primary care has been so robust that the World Health Organization concluded in 2008 that "the broad focus of primary health care, along with the social determinants of health, should be kept foremost in policy of all countries".[4]

It is the purpose of this paper to provide some examples of evidence published after the 2005 review was written, to reiterate and add to the rationale for primary care as the appropriate health system infrastructure, and to indicate what needs to be done in the future to maintain and strengthen its potential.

Evidence of benefits of primary health care – the system/population level

International comparisons

Among 90 countries with Gross National Income of less than $10,000 per person, 30 have moved toward primary health care. Of these 30, 14 moved to comprehensive primary care (defined as skilled attendance at birth). These 14 have achieved much lower under-five mortality rates along with greater equity in health care as well as more equitable distribution of health services,[5] thus confirming earlier findings in industrialized countries.

Gakidou and colleagues found that improvements in women's education accounted for over half the reduction in under-5 mortality in a study of 175 countries – a far greater effect than that of increasing income.[6] As more educated women are more likely to use health services, and particularly preventive care, countries such as China, Costa Rica, Sri Lanka, and Kerala state that make a political commitment to both education and primary care services achieve relatively high life expectancies despite low income.[7]

In a comparison of health outcomes in the neighboring countries of Canada and the US, the former (more primary care oriented) country does better than the latter country on 10 of 12 indicators. The gap between the two countries in international comparisons has widened since the passage of the Canada Health Act in the early 1970s. This act and subsequent provincial policies greatly strengthened the primary care underpinnings of the Canadian health services system.[8] A review of 38 studies addressing diverse clinical problems found that, overall, quality of care is better in Canada than in the United States. Of 10 studies that included extensive statistical adjustment and enrolled broad populations, five favored Canada, two favored the US, and three showed equivalent or mixed results.[9] A comparison of age-adjusted survival from breast cancer showed that low socioeconomic status is strongly associated with decreased survival in the US but not in Canada, and the survival advantage in Canada is much larger for people who are under age 65, who are not covered by universal financing to facilitate the receipt of primary care in the US.

Evidence from within countries

Newer studies not only confirmed the findings of older ones but did so with improved control for other known influences on health.

In the United States, an increase of one primary care doctor (PCP) per 10,000 population is associated with 1.44 fewer deaths per 10,000 population, a 2.5% reduction in infant mortality, and a 3.2% reduction in low birth weight after controlling for income inequality, education, unemployment, racial/ethnic composition, urban/rural location, percentage elderly, percentage living in poverty and/or low income.[10] The percentage decrease expected from one more one primary care physician per 10,000 population ranges from 2% percent to 6%, depending on the attributed cause of death. There is greater variability in African American deaths across states than is the case for white deaths, making the estimates less precise for African Americans, at least partly due to greater variability in the adequacy of the facilities available to African Americans.[11] Nevertheless, the association of primary care with decreased mortality is greater in the African-American population than in the white population,[12] thus indicating a greater potential for decreasing inequity in health.

In US Standard Metropolitan Statistical Areas (where 80% of the US population resides) an increase of one PCP/10,000 (approximately a 15% increase) decreases inpatient admissions by an estimated 6%, outpatient visits by 5%, emergency room visits by 10%, and surgeries by over 7%.[13]

A nationally representative US study showed that adults and children with a family physician (rather than a general internist, pediatrician, or sub-specialist) as their regular source of care had lower annual cost of care, made fewer visits, had 25% fewer prescriptions, and reported less difficulty in accessing care, even after controlling for case-mix, demographic characteristics (age, gender, income, race, region, and self-reported health status). Half of the excess is in hospital and ER spending; one-fifth is in physician payments; and one-third is for medications.[14]

A review of previous studies and a new study in the state of Victoria (Australia) confirmed that better primary care access is associated with lower hospitalization rates for conditions managed by good primary care. After taking into account other influences on hospitalization rates, e.g., population characteristics (poorer health status, low income, poorer education) and low supply of primary care physicians, all of which are associated with greater likelihood of hospitalization), consumers' reports of access to primary care are associated with lower hospitalization rates for these conditions (with no effect on hospitalizations for conditions not preventable by good primary care).[15]

Using data from hospitals and data on physician supply, Chetty et al found that 30 day readmission rates for pneumonia, heart attack, and heart failure decrease as the number of family physicians increases.[16] Increased numbers of physicians in

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all other major specialties was associated with increased risk of readmission, accounting for 15.7% of all readmissions in the US. Adding one family physician per 1000 population (adjusted for mortality, sociodemographics, and hospital characteristics) reduces the odds of readmission for these three conditions by 7%, 5%, and 8%, respectively. Increasing the family medicine workforce to 46 per 100,000 people in each county could reduce readmission rates for these three conditions alone by 1%, 0.7% and 1.1%, resulting in a cost reduction of $12.7 million per year. [If reductions for all other causes of hospital readmission result in comparable savings, then there would be a total savings of $80.9 million each year. A greater increase, to one hundred family physicians per 100,000 people, would save $578.6 million per year in the country.]

A variety of US studies by DeVoe and colleagues have shown that both financial access and a regular source of care have important benefits. Financial access is especially important for preventive care whereas a regular source of care is critical to meeting peoples' health needs over time. These studies do not examine the nature of the regular source of care, but this regular source is reported to be a primary care source about 90% of the time.[17]

Studies in Canada find similar effects. For children of ages 0-17 in Ontario, areas with higher primary care physician supply have greater self-reported access, more use of recommended preventive care visits, less use of the emergency room for non-urgent problems, and fewer hospitalizations for common acute conditions and acute exacerbations of chronic illnesses.[18] Areas of Ontario where the supply of GPs is 7 or more per 10,000 have higher likelihood of early diagnosis and higher 5 year survival for breast cancer, even after controlling for age and area income, than areas with less than 7 per 100,000. A loss of GPs during the 1990s was associated with a lower likelihood of early diagnosis and 5-year survival.[19]

In the United Kingdom, an analysis that controlled for the propensity of physicians to locate in areas with better health found that the greater the family physician supply, the better the self-reported health; the association was even greater than had been found in a previous studies.[20]

Evidence from developing countries

Starting in 1990, Brazil built a tax-based health services system based on strong primary care. During the period 1990-2007, there were marked improvements in maternal education, large reductions in postneonatal mortality and under-5 mortality, marked reductions in stunting, increased contraceptive use, vaccine coverage, antenatal care, skilled birth attendance, and marked decreases in absolute rich-poor differences in infant and child mortality across different areas. Between 1996 and 2005, chronic disease mortality decreased, except for diabetes. There have been large declines in hospitalizations for primary care sensitive conditions (overall 5% per year), more so at ages 20-59, and less so in the elderly. Hospitalizations for the main chronic diseases have declined by 25-30%, especially for cardiovascular diseases, asthma, hypertension, stroke.[21] Hospitalizations that would be prevented by good primary care declined by over 5% annually.[22] Infant mortality declined 40% between 1990 and 2002; controlling for other impacts on infant mortality, a 10% increase in primary care coverage was associated with an average 4.6% decline in infant mortality. The effect was primarily in postneonatal mortality and largely a result of a decline in deaths from infectious diseases, especially diarrhea.[23] A household survey of adults (ages 18+) found that there was no difference in use of either outpatient or inpatient services between the poorest and richest area income quintiles for people who reported poor health status. That is, vertical equity has been almost achieved in Brazil.[24]

Largely as a result of the advocacy of the Rural Doctors Society insurance for medical services was progressively expanded to cover the entire population of Thailand by the early 2000s. At least one primary care health center was developed in each rural village. During this period, under-5 mortality was lowered by a much greater percentage in more deprived populations than in less deprived ones: 44% in the poorest quintile and 13% in the richest percentile. Both relative and absolute differences in under-5 mortality were reduced.[25] Analyses in Indonesia indicated a worsening infant mortality during a period in the late 1990s when primary care expenditures were reduced and hospital expenditures increased.[26]Other studies comparing primary care intervention areas with comparison areas (as in Haiti, Bangladesh, India, Liberia, Zaire, Bolivia) also showed decreased inequalities in the primary care areas.[27–30]

A later review of studies of an integrated approach to primary care in low- and middle-income countries found that most of the 36 studies showed improved health associated with primary care.[31] The conclusions were supported by a subsequent review,[32] which concluded that the major efforts were to eliminate services directed at particular health problems in favor of integrated services in public facilities, generally by non-physician primary care providers. Improved health, particularly for young children (the predominant focus of such efforts) has often been associated with greater equity in health, and at lower costs than previously estimated, largely due to reductions in unnecessary services and more efficient use of medications.

Doherty and Govender reviewed the literature for the utility of primary care in developing countries in Africa.[33] The evidence clearly showed the fallacy of disease-oriented approaches and the importance of "packages" as long as they are broadly inclusive.

Evidence of the benefits of primary care – the individual level

Research on the quality of care consistently has shown that primary care physicians provide higher quality of care for generic (person-focused) measures of care. While specialists may do better on certain disease-specific and guideline-directed aspects of disease management, person-focused care is better when done by primary care physicians.[1] A recent US study showed that generalists are more likely than specialists to spot clinically-important drug-drug interactions – a phenomenon that indicates safer care.[34]

Primary care improves health system functioning through such services as managing and triaging undifferentiated symptoms, matching patients' needs with health care resources, and enhancing systems' ability to adapt to new circumstances. Ferrer and colleagues provided evidence on each of these types of contributions.[35] The benefits are a result of the combined effect of four unique characteristics of primary care: first contact, person-focused care over time, comprehensiveness, and coordination. No other form or specialty of medicine provides all four in concert.

A recent review of 161 peer reviewed publications divided the evidence on the benefits of a primary care orientation into two types: primary care defined by the type of provider and primary care as a set of functions generally defined by "continuity over time" provided by a usual source of care. It concluded that the available evidence most directly supports the latter; it is not the type of primary care providers that make the difference but, rather, the functions they perform that are responsible for the benefit.[36]

In a series of US studies involving only the elderly (age 65 and over) and focusing primarily on variability in resource use, investigators found that high intensity of hospital care (and, hence, greater costs) is associated with a greater input of physician activity, but areas with lower intensity have more primary care physician activity, and areas with high intensity have greater medical specialist activity.[37,38]

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Rosenthal provided updates on the benefits of "whole-person orientation" and coordination.[39] Parchman et al found that patient-practitioner communication and coordination in primary care were associated with fewer reported "hassles" among patients with chronic illnesses.[40] Kringos et al added considerably to the importance of comprehensiveness and coordination in their literature review of these issues.[2]

The comprehensiveness function of primary care deserves special mention because evidence of its benefits was sparse until recently. Comprehensiveness is measured by the availability in primary care of a wide range of services to meet common needs, and by performance of a wider range of health services for a wider range of health problems. Comprehensiveness is a critical feature of primary care because it is responsible for avoiding unnecessary referrals to specialists and therefore for avoiding unnecessary and inappropriate care and inappropriate expenditures.

Friedberg et al, in their review of the literature up to 2009 found no evidence that providing care for a single body part or health condition by a specialist can achieve the benefits of primary care, thus buttressing the importance of comprehensiveness as an essential element of primary care.[36] Higher comprehensiveness scores (e.g., number of medical procedures performed in primary care; presence of occupational and physical therapists available in primary care) are associated with better coordination between primary care and other specialists, as shown in a study in Canada.[41] Another study showed that the more DIFFERENT specialists that are seen, the higher the total costs, medical costs, diagnostic tests and interventions, and types of medication. The more that can be done in primary care, the greater the efficiency of the care, even after controlling for morbidity burden.[42] In a study in 1227 health centers in three developing countries in Africa, the greater the comprehensiveness of services, the greater the vaccination rate; the effect increased with greater comprehensiveness.[4]

In a study that controlled for multimorbidity among diabetic patients and people with congestive heart failure in British Columbia (Canada), continuity of primary care was associated with lower costs, mainly from reduced hospitalization but also from reduced specialist use. The findings were robust to differences in age and patient characteristics (including income or area of residence). Each additional 1% increase in continuity of care was associated with a saving of about $81 per year per person with diabetes; the benefit of continuity of primary care was especially great for people with complex morbidity patterns.[43]

Large medical groups that score higher on quality of management of selected chronic illnesses also score higher in primary care attributes. That is, better overall care for patients is associated with better care for their individual problems.[44] Moreover, continuity of care over time is associated with better coordination of care,[45] as is comprehensiveness of care.[41]

Data derived from a US nationally representative survey of individuals 70 years old or more showed that non-continuity of primary care physician, as defined as more than 8 months between visits to the same primary care physician, is associated with increased mortality during a fifteen-year follow-up. Neither low subjective life expectancy, smoking or drinking, fair or poor self-rated health, other chronic disease, or hospitalization in the year before baseline accounted for the differences in mortality. Moreover, the greater the volume of visits to the primary care physician, the greater the survival benefit from continuity of care, suggesting the great importance of accumulated knowledge of patients.[46]

Innovations, enhancements, and challenges

Widespread acceptance of the importance of primary health care has led to a variety of efforts to promote enhancements intended to strengthen it. To the contrary, some of these appear to be an effort to maintain the dominance of hospitals and specialists and markets for technologies that promise profits for the developers. Others, however, appear to be ways to strengthen the provision of the important components of primary care. The following provides a brief summary of the major approaches.

"Patient-centered care"

A long history of research on characteristics of the physician-patient interaction in individual visits has provided not only instruments of measurement but also evidence that better interaction with patients during visits is associated with greater satisfaction with care and with some aspects of clinical management. There is little evidence, however, of notable improvements in subsequent health. Individual visits can address only a limited number of patient concerns but the essence of primary care is a process of care that takes place over time and across a variety of types of problems that patients experience over time. The "patient-centered medical home" innovation broadens the concept of "patient-centered" to interactions over time, not just in a single visit"[47]. Recent work indicates that time-based patient orientation is associated with better effectiveness in achieving overall well-being, reducing disparities (increasing equity) across patient subgroups, and greater efficiency (spending less time in visits), greater safety of services rendered, and fewer malpractice suits.[47] In order to avoid confusion between visit-based measures of interaction and time based measures of attention to peoples' problems, it will be useful to distinguish the two by different terms: patient-centered (for visits, consistent with the literature) and person-focused (to connote relationships over time). Patient-centeredness in visits should be a feature of ALL care, whether primary care or specialty care.[48] Person-focused is a feature of primary care. As face-to-face visits are increasingly being replaced by other modes of interaction such as telemedicine, primary care research should extend beyond a focus on visits to time-oriented interactions.

Primary care/specialty care interactions

It is evident that, while there is a relationship between the supply of primary care physicians and better health, there are exceptions to the rule. For example, in the United States, there is a strong and robust relationship between the supply of primary care physicians (especially family physicians) and better health, greater equity, and lower costs, but there are areas of the country, particularly those with a large influence of specialist care, where this is not the case.[49] Another example is Denmark, which has excellent primary care but poor health relative to other comparable countries.[50] Despite the benefits of a primary care orientation, it is important to realize that primary care alone cannot assure good health in the population. With increasing survival from acute conditions, the role of ongoing care by primary care clinicians needs to be complemented by specialty services that support the functions of primary care through prompt and adequate attention to complex health problems. The functions of primary care are well known and measurable, but the functions and roles of specialty care are not. Specialist care is known to be more costly than primary care, but its specific benefits to effectiveness, equity, and efficiency are unknown. Studies in the US indicate that an oversupply of specialists is detrimental to health;[51] other studies have shown that specialist supply is inequitably distributed in almost all countries.[52] It is important to turn attention to understanding what problems should be referred to specialists, in what circumstances, and with what expectations. Specialty care needs to be accountable for its impact on health and costs of care, in the same way that accountability of primary care is being required.

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The medical home

In an attempt to translate the evidence on primary care into action, the concept of the "medical home" was developed in the US. Based primarily on achieving the unique functions of primary care as described above, the medical home also draws from the presumed value of primary care "teams", the "chronic care model", and the electronic health record.

Reid and colleagues implemented an intervention which involved secure email interactions between patients and practitioners, disease registries, care plans, self-management interventions, increased outreach to patients, team discussions, and performance evaluations.[53] Within two years there were cost savings, increased patient satisfaction, less burnout for practitioners, 29% fewer emergency room visits, 6% fewer hospitalizations (controlled for age, sex, and case-mix), and savings of $103 per patient per month, when compared with non-intervention clinics. There was a slight increase in use of specialists but less so at two years than at one year of implementation.

Another US intervention involving a large health plan included:

- Patient-centered practice: teams (MD, nurse, MD-assistant, administrative staff, case-manager); patient registry and tracking; expanded in-office treatments; improved access).
- Integrated population management: population profiling; primary prevention reminders; case management; disease management; remote monitoring; transition management; medication management; life planning.
- Micro-delivery systems: lists of specialists; design of care systems in other sites (e.g., home health).
- Quality outcomes: 10 specific indicators, including patient satisfaction, preventive and chronic disease care, encounters/patient, post-hospital follow-up, percentage of high risk patients with current care plans.
- Value reimbursement systems: fee for service to reward for access; pay for performance for quality targets; stipends for participating in new activities; incentive payments based on shared savings.

This multi-component intervention was associated with an 18% cumulative reduction in inpatient admissions and a 32% reduction in readmissions (as compared with a group of practices not implementing the program) over a 4-year study period. Costs (excluding medication costs) were not significantly reduced. No attempt was made either to determine which of the intervention components were responsible for the changes or to examine reasons for the absence of significant reductions in costs.[54,55]

The generalizability of these and other (usually disease-oriented "innovations" is as yet unproven, primarily because evaluations have been focused on patients with a limited set of selected chronic illnesses (primarily diabetes mellitus).[54,55]

Guidelines in primary care

Although general outlines for dealing with health problems based upon high quality evidence can be helpful, the way in which guidelines have developed makes them largely unsuitable for primary care. The starting point for most guidelines is the presence of a disease or condition. Thus, they fail to address quality of care for most of what occurs in primary care: undifferentiated problems rather than diagnoses, and multimorbidity rather than single diseases. Furthermore, the evidence base is inadequate, not based on representative populations, conducted in atypical settings, focused on performance of procedures rather than on improvement in health, and impervious to the potential for adverse effects. Primary care performance measurement using disease-oriented guidelines creates inappropriate incentives in caring for people with multiple conditions, creates perverse incentives for focusing on what is easily measurable rather than what is most important and for avoiding the care of disadvantaged populations. In their application, guidelines are unfair, as they place a greater burden on primary care than on outpatient specialty care, which is exempt from them. A better strategy for quality control in primary care would assess how well primary care carries out its functions of first contact, person-focused care over time, comprehensiveness, and coordination and avoids adverse events, but there is no systematic attempt to do this anywhere.

The problems with payment for performance in primary care are extensions of the problems with guidelines; they lie in their inappropriate conceptualization and application rather than being inherently inappropriate. Payment should be based on achievement of evidence-based functions that are directed at improving care to people, not on the basis of adherence to disease-oriented criteria.

The emphasis on chronic illnesses

A concerted attempt to focus the attention of health services on chronic illnesses is misplaced as a strategy to improve primary care. As deaths from acute diseases are waning, deaths attributed to chronic illnesses are increasing in relative frequency. Their importance signals a new era in the conceptualization of illness: management of multiple concurrent diseases rather than management of single diseases.

Focusing primary care on selected chronic conditions is not likely to improve the health of populations and may not improve the health of individuals in general or just those with chronic illnesses.[56] A more appropriate way to organize care is through person- (not disease-) focused health services that take into account different degrees of "morbidity burden" and different mixes of types of problems in people and populations. As recognized in the 2008 World Health Report, this requires a renewed universal emphasis on primary health care.[4]

Teams

The literature on the use of teams in primary care practice fails to specify the tasks carried out by different members of teams and the extent to which they contribute to the functions of primary care. Every team is different. Non-physician members primarily carry out specific tasks (such as ordering medications or lab tests when physicians need help in keeping to their workload schedules. The extent to which teams complement physicians by adding to the comprehensiveness of services offered is unclear.[57]

Other "innovations"

In the UK, reorganization of primary care and specialty care, particularly in urban areas, is taking one of two forms: the co-location of primary care and specialty services in one large center and the "hub-and spoke" design arranged within communities to locate primary care facilities around a central specialist referral site.[58] The latter is reminiscent of the original conceptualization in the 1920 Dawson report[59] in the UK, which launched the term "primary care" in the context of "primary health care centers". As this is responsive to the need to improve the coordination of primary care and other specialist services, research on its benefits and unintended disadvantages will be of great interest.

In reviewing evaluations of these as well as other "innovations and enhancements", it appears clear that structural changes alone

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(e.g., physician and patient reminders, electronic health records, case managers) will be useful only to the extent that they foster behaviors that are consistent with the achievement of primary care functions.

Conclusion

If primary care has a demonstrably salutary impact on health and equity in health, it follows that stronger primary care should produce better outcomes than weaker primary care. There are instruments to assess the strength of primary care, both from the systems viewpoint and from the clinical viewpoint. Malouin and colleagues reviewed the most widely tested instruments using the domains and subdomains of primary care as the basis for comparison.[60] One instrument, the PCAT, addresses the four key domains of primary care (first contact, person-focus over time, comprehensiveness, and coordination), each from the vantage of the structural characteristics of facilities and from the behavioral characteristics that are important in achieving the function. Thus, the instrument has eight subdomains plus three additional domains that are often considered useful: family orientation, community orientation, and cultural competence. Consumer versions and provider/facility versions have been tested for adults and/or children in the US, Canada, Spain, Korea, China, Hong Kong, and Brazil, as well as in several other areas (www.jhsph.edu/pcpc/pca_tools.html). A tool to assess the systems/policy characteristics is also part of the PCAT set. Instruments such as the PCAT and the CARE set of instruments[61] also address such issues as making patients feel at ease, allowing them to express their concerns, listening, being interested in them as a whole person, showing care and compassion, being positive, explaining things carefully, helping patients take control, and helping plan a course of action. The PHAMEU tool is being tested for the purpose of comparing the structural aspects of primary care orientation of European countries.[62]

Accountability of health systems for their primary care orientation is now possible. The challenge for the future is to make it a reality in moving towards developing similar approaches for specialty services as well, and for the relative contribution of each and both together.

Conflict of interest

None.

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