

Primary health care and Malta: Past, present and future

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1. WHY REFORM PRIMARY CARE IN MALTA?

General practice and primary care have recently been declared top priorities for a reform of the health care system in Malta. This is the first such major reform, and proposed investment, in primary health care (PHC) for many years. Until recently, significant health care investment had been focussed almost exclusively on the secondary care sector, almost exclusively. In the coming months and years, the Maltese government has explicitly promised that primary care reform will assume a central role in health care policy and practice, most recently in a speech by Parliamentary Secretary for Health the Hon. Dr. Joseph Cassar at a Medical Association of Malta (MAM) conference on Primary Care held in Malta in November 2008 (MAM, 2008; <http://www.mam.org.mt/newsdetail.asp?i=989&c=1>).

Community care in Malta dates back to the 16th century, with a domiciliary service in Valletta being formalised in 1725. In 1885 a district clinic system (auberges or *Bereg*) was set up. This and developed into a group of “police doctors”. This set-up evolved into a system of District Medical Officers, who provided services to the under-privileged. An attempt to institute a free NHS primary care system similar to the UK one failed in the ‘50s. In 1977 the health centres were set up in the midst of a medical dispute, and these remain in function to the present day. Currently there are two parallel primary care systems in Malta: a public system of walk-in polyclinics free of charge to all Maltese nationals (also providing emergency services to foreign visitors and residents), and a number of private self-employed family doctors who provide basic and emergency services to those who select them against a very reasonable fee for each service. The public system is overloaded (569,000 general practice (GP) encounters in 2006; 515,777 in 2007) with meagre staffing levels, such as around 90 doctors catering for approximately one third of the Maltese population. The system suffers from inexistent continuity of care, poor levels of customer satisfaction and high levels of staff stress (Soler et al, 2008b) and turnover. Private family doctors work in isolation with poor out-of-hours coverage in some areas, limited access to investigations and special equipment, and often poor record-keeping, but much better continuity of care and patient satisfaction than the public sector. Consequently, approximately two thirds of GP encounters take place in the private care setting. Medical and social services in both the public and private sector tend to be fragmented with poor communication in the interfaces between primary, secondary and tertiary care, thus leading to professional isolation. Other major issues seem to include the absence of a patient registration system, overload on acute hospital services (especially in the accident and emergency department), lack of chronic disease management frameworks, minimal investment in primary care infrastructure and human resources, barriers to accessing services, service gaps in domiciliary care and care of the elderly, and limitations in mental health services. (Ministry for Social Policy, 1991, 2008)

At a recent MAM and Mediterranean Institute of Primary Care conference in May 2008, Prof. J K Soler presented the results of a small study on how specialists in family medicine rate the primary care system in Malta, according to the questionnaire designed by Macinko et al to score worldwide primary care systems (Macinko et al, 2003). The questionnaire deals with the aspects of regulation, financing, primary care provider, access, longitudinality, first contact, comprehensiveness, co-ordination, family-centred, and community-oriented. The public and the private GP service both received an equally low score of 8.3 out of 20, which then obviously represents the overall primary care score for Malta. This is rather low, comparing unfavourably with the better health care systems in Europe that scored between 2 and 19, with a mean of 9.7 (Macinko et al, 2003).

A number of high quality systematic reviews of evidence (Shi et al, 1999, Starfield et al, 2005) has led the World Health Organisation to unequivocally state *for over thirty years* that primary care should be at the core of all national health care systems, in developing as well as developed countries, and that this results in better outcomes and reduced costs (WHO, 1978, 2004, 2008)

Which reforms to implement, where, when, how to start and proceed, why one choice is better than another, what and how to change, are some of the key questions. The Ministry for Social Policy has twice (1991, 2008) presented a vision for a new Maltese primary care system. In 1991 the recommendation was for the “Family Doctor Scheme” governed by a family doctor scheme council, with an expanded role for the family doctor (as an adviser, counsellor, educator and co-ordinator of care) with a role as the leader of a health care team, new responsibilities for the public as users, and facilitation of a new long-lasting relationship between doctor and patient. The scheme involved new payment models (with payment of a capitation fee, items of service, emergency treatment/out of hours care, minor surgery, seniority allowance, etc.), incentives for good practice, direct support for development of group practices, employing staff, and capital expenditure on equipment and premises. Continuing medical education and training of colleagues (under and post-graduate) were also to be directly financed by the proposed “Family Doctor Scheme”. For reasons that are not entirely clear, the scheme did not materialise. In 2008, new proposals were put by the same Ministry, based on the concept that our national health care system should have a strong primary care core. The new document has broader aims than the first family doctor scheme, proposing to mainstream health into all sectors at a local level, to provide caring and supportive service environments, to enhance accessibility to services, to promote quality of service provision, and to safeguard sustainability. However, strengthening primary care and family medicine are strong threads through the framework of this new strategy (Ministry for Social Policy, 2008, 1991).

In every country, it is to be expected that health service delivery should adapt to health care reforms which take place from time to time. For example, in 2000, there were five main objectives in the process of reform in the United Kingdom (McAvoy, 2000)

- (i) to strengthen primary health care at the core of the NHS
- (ii) to provide efficient services
- (iii) to increase patients’ engagement
- (iv) to increase community-based services
- (v) and more influence for family doctors

In 2008, the Maltese Ministry for Social Policy proposed as strategic objectives the following (Ministry for Social Policy, 2008):

- (i) to improve the health of every person
- (ii) to prevent illness and premature death
- (iii) to restore health and rehabilitate ill persons

Such goals may strike one as being rather directive and paternalistic, and could involve patients and other stakeholders more in setting and achieving targets for health improvement and maintenance.

The dilemma is that, in spite of evidence that unequivocally proves that investment in tackling the social determinants of health is more cost-effective, it is health care services that are perceived as a greater priority by the population and thus by politicians. Similarly, often secondary care services are often seen to be more important than primary care services, even though the former have been shown repeatedly to be less expensive, more effective, and associated with better patient outcomes and satisfaction than the former.

This report intends to inform the process of major re-development of primary care services in Malta by examining various international definitions of primary care, which should be applied faithfully if one is to reap the benefits which have been achieved by primary care reforms elsewhere; by reporting what has been shown to be effective in primary care systems elsewhere; and by analysing what has been proposed for Malta and how various proposed models are (or are not) supported by published evidence.

In conclusion, this report makes concrete evidence-based proposals that are being offered to inform and support the primary care reform currently in progress.

2. DEFINITIONS OF PRIMARY CARE

What is primary care?

Two reports from the Institute Of Medicine defined Primary Care as:

“... the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community” (IOM, 1974, 1994)

The World Organisation of General Practitioners/Family Doctors (Wonca) European region has expanded this definition somewhat, specifically focussing on the work of the family doctor in primary care:

“General practitioners/family doctors are specialist physicians trained in the principles of the discipline. They are personal doctors, primarily responsible for the provision of comprehensive and continuing care to every individual seeking medical care irrespective of age, sex and illness. They care for individuals in the context of their family, their community, and their culture, always respecting the autonomy of their patients. They recognise they will also have a professional responsibility to their community. In negotiating management plans with their patients they integrate physical, psychological, social, cultural and existential factors, utilising the knowledge and trust engendered by repeated contacts. General practitioners/family physicians exercise their professional role by promoting health, preventing disease and providing cure, care, or palliation. This is done either directly or through the services of others according to health needs and the resources available within the community they serve, assisting patients where necessary in accessing these services. They must take the responsibility for developing and maintaining their skills, personal balance and values as a basis for effective and safe patient care.” (Wonca, 2002)

In 2005, the European Academy of Teachers of General Practice (EURACT) expanded the definition to include six core competencies based on eleven distinct characteristics:

“General practice / family medicine is an academic and scientific discipline, with its own educational content, research, evidence base and clinical activity, and a clinical specialty orientated to primary care.

The characteristics of the discipline of general practice/family medicine are that it:

- a) is normally the point of first medical contact within the health care system, providing open and unlimited access to its users, dealing with all health problems regardless of the age, sex, or any other characteristic of the person concerned
- b) makes efficient use of health care resources through co-ordinating care, working with other professionals in the primary care setting, and by managing the interface with other specialities taking an advocacy role for the patient when needed.
- c) develops a person-centred approach, orientated to the individual, his/her family, and their community
- d) has a unique consultation process, which establishes a relationship over time, through effective communication between doctor and patient

- e) is responsible for the provision of longitudinal continuity of care as determined by the needs of the patient
- f) has a specific decision making process determined by the prevalence and incidence of illness in the community
- g) manages simultaneously both acute and chronic health problems of individual patients
- h) manages illness which presents in an undifferentiated way at an early stage in its development, which may require urgent intervention
- i) promotes health and well being both by appropriate and effective intervention
- j) has a specific responsibility for the health of the community
- k) deals with health problems in their physical, psychological, social, cultural and existential dimensions.

The six core competencies for a family doctor are:

1. Primary care management (a,b)
2. Person-centred care (c,d,e)
3. Specific problem solving skills (f,g)
4. Comprehensive approach (h,i)
5. Community orientation (j)
6. Holistic approach (k)

As a person-centred scientific discipline, three additional features should be considered as essential in the application of the core competences:

- a. Contextual: Understanding the context of doctors themselves and the environment in which they work, including their working conditions, community, culture, financial and regulatory frameworks.
- b. Attitudinal: based on the doctor's professional capabilities , values and ethics
- c. Scientific: adopting a critical and research based approach to practice and maintaining this through continuing learning and quality improvement." (EURACT 2005)

Barbara Starfield has conducted much seminal work in exploring an evidence base for primary care. She includes primary care (community) gynaecologists, internists and paediatricians in her definition of primary care practitioners, primarily because this reflects the special situation in the United States:

"Primary care is first-contact, continuous, comprehensive and coordinated care provided to populations undifferentiated by gender, disease, or organ system." (Starfield, 1994, 1998)

3. CORE ELEMENTS OF PRIMARY CARE

What are the core elements of primary care that have been identified by international organisations and researchers?

In the Institute of Medicine Report, one can identify the following concepts (*italics are ours*): *integrated, accessible, health care services, by clinicians, accountable, large majority of personal health care needs, sustained partnership with patients, context of family and community* (Donaldson et al, 1996; IOM 1978)

Starfield defined primary care as having four central components:

- Primary contact is the extent to which the population actually uses the services when a need for them is first perceived.
- Longitudinality or continuity is person-focused care over time
- Comprehensiveness requires that the primary care provider offer a range of services broad enough to meet all the common needs in the population
- Coordination is the degree to which the primary care provider manages all the patient's health care, including that provided at secondary and tertiary care levels (Starfield, 1994)

EURACT identified six core competencies, and eleven characteristics, listed in section 2 above. (EURACT, 2005)

4. THE EVIDENCE BASE OF PRIMARY CARE

What is the basis for the international recommendations that primary care should be strengthened as a core element of every national health care system?

In other words, is primary care essential? (Starfield, 1994) How would a health care system designed mainly around public health, secondary/tertiary health care and social care services perform? Is secondary care more or less effective and efficient than primary care? What is the evidence, if any, that systems with a strong primary care element perform as well as or better than those systems which have stronger secondary care backbones? Starfield asks these questions, and many more, and reports data on primary care “score” (higher score with a better primary care system) and Organisation for Economic Co-operation and Development (OECD) data on health care system performance and concludes that:

“The average rank for the “outcome” indicators generally parallels the rank on the primary-care score, as does the rank for at least three of the four components of the combined outcome score (perhaps excluding satisfaction), suggesting that the primary-care orientation of a health system is associated with lower costs, less medication use, and better health levels.” (Starfield, 1994)

The question can be posed in various ways. One can look at primary care systems as a whole, or else one may study the performance of different elements of primary care systems, or the effects of primary care on various health problems or on sub-groups of patients. We will try to do all three in this section, and the following section. We will also look at whether any benefits found would come at increased health care system costs, and what the current recommendations are from the World Health Organisation based on such evidence.

We start by defining how to measure primary care in such a way that those key elements which make it up can be measured individually. These primary care “scores” allow one to establish whether primary care is a strong element within the national and local health care system under study. Studies performed in this way also allow one to examine how the various elements contribute to the performance of a particular primary care system.

How do we measure primary care scores?

Primary care is a practice environment rather than a set of services. The elements of primary care, as studied by Starfield are listed above. She recommends a system for assessing the presence (or absence) of these characteristics:

- First contact involves assessment of both accessibility of a provider or facility and the extent to which the population actually uses the services when a need for them is first perceived.
- Longitudinality (person-focused care over time) is assessed by the degree to which both provider and clients agree on their mutual association and also the extent to which individuals in the population relate to that provider over time for all but referred care.
- Comprehensiveness requires that the primary care provider offer a range of services broad enough to meet all common needs in the population, and assessment includes the extent to which the provider actually recognises these needs as they occur.

- Coordination requires an information system that contains all health-related information; and assessment again includes the extent and speed with which the information is recognised and brought to bear on patient care. (Starfield, Lancet 1994)

Two characteristics are needed (structure & process) to assess each of the unique attributes of primary care (WHO, 1978; Starfield, 1994) (accessibility, coordination, comprehensiveness, and continuity). Primary care is assessed as “good” according to how well these four features are fulfilled. For some purposes, an orientation toward family and community is included as well (Starfield, 1998).

1. the evidence that primary care “score” in a health care system improves health

Figures 1 and 2 show that at least among western industrialised nations, the more primary care orientated a country’s health service system is (rank 1 is better than 12), the lower are the costs of care, the higher is satisfaction of the population with its health services, the better are health levels, and the lower is medication use. (Starfield, 1994)

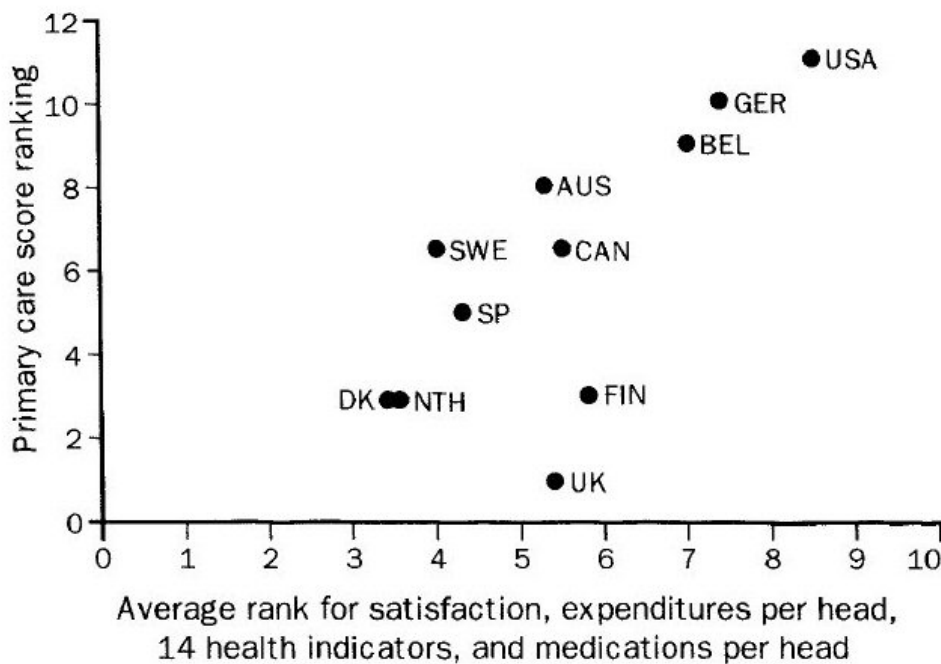


Figure 1: Primary-care score vs “outcome” Indicators

NB, rank 1 is best, rank 12 worst.

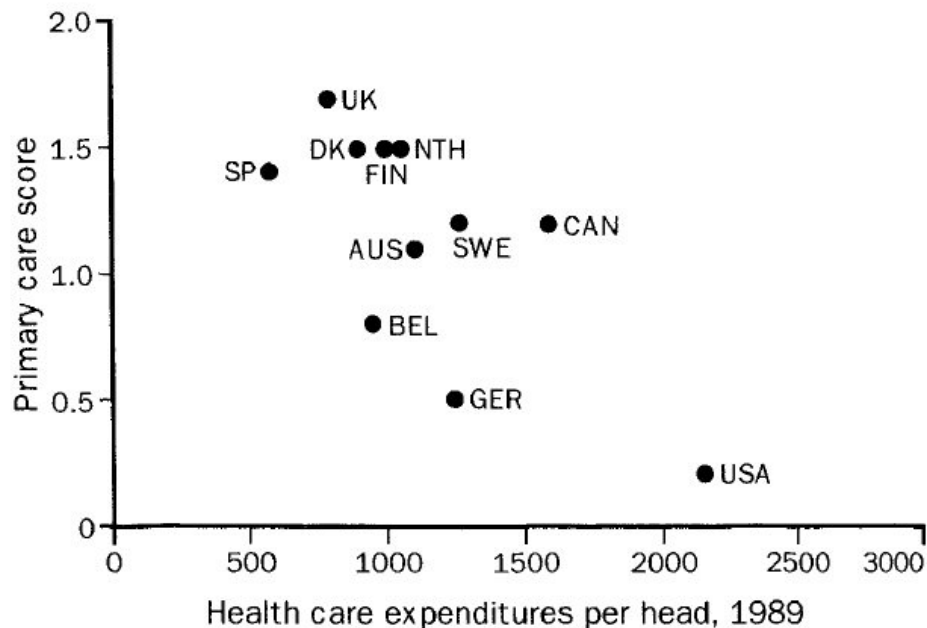


Figure 2: **Primary-care score vs health-care expenditures**

Starfield (1994, 1998) has also unequivocally shown that the strength of a country's primary care system is negatively associated with::

- (a) all-cause mortality,
- (b) all-cause premature mortality, and
- (c) cause-specific premature mortality from asthma and bronchitis, emphysema and pneumonia cardiovascular disease and heart disease.

Strong primary care system and practice characteristics such as geographic regulation, longitudinality, coordination and community orientation were associated with improved population health (Macinko et al, 2003)

Both primary care and income inequality exerted a strong and significant direct influence on stroke and post-neonatal mortality. It appears possible that a primary care orientation may, in part, overcome the severe adverse effects of income inequalities on health. (Shi et al, 1999)

Three lines of evidence represent a progressively stronger demonstration that primary care improves health by showing:

- a. That health is better in areas with more primary care physicians***
- b. That people who receive care from primary care physicians are healthier***
- c. That the characteristics of primary care are associated with better health. (Starfield et al, 2005)***

The evidence shows that primary care helps prevent illness and death regardless of whether the care is characterised by supply of primary care physicians, a relationship with a source of primary care, or the receipt of important features of primary care. The evidence also shows that primary care (***in contrast to specialty care***) is associated with a more equitable distribution of health in populations, a finding that holds in both cross national and within nations studies. The means by

which primary care improves health have been identified (see below), thus suggesting ways to improve overall health and reduce differences in health across major populations sub groups. (Starfield et al, 2005)

A. Health Outcomes and the Supply of Primary Care Physicians

(Starfield et al, 2005). *Not all references are listed in section 11*

Studies in the early 1990s (Shi 1992, 1994) showed that those U.S. states with higher ratios of primary care physicians to population had better health outcomes, including lower rates of all causes of mortality: mortality from heart disease, cancer, or stroke; infant mortality; low birth weight; and poor self-reported health, even after controlling for socio-demographic measures (percentages of elderly, urban, and minority; education; income; unemployment; pollution) and lifestyle factors (seatbelt use, obesity, and smoking). Vogel and Ackerman (1998) subsequently showed that the supply of primary care physicians was associated with an increase in life span and with reduced low birth-weight rates.

In 1999, Shi and colleagues reported that both primary care and income inequality had a strong and significant influence on life expectancy, total mortality, stroke mortality, and post-neonatal mortality at the state level. They also found smoking rates to be related to these outcomes, but the effect of the primary care physician supply persisted after they controlled for smoking (Shi et al, 1999). A later study confirmed these findings, this time using self-assessed health as the health outcome (Shi and Starfield, 2000). These relationships remained significant after controlling for age, sex, race/ethnicity, education, paid work (employment and type of employment), hourly wage, family income, health insurance, physical health (SF-12), and smoking. ***Thus primary care has an effect on health which is not only due to health promotion and prevention, and the effect remains even after correcting for social status.***

The supply of primary care physicians was significantly associated with lower all-cause mortality, whereas ***a greater supply of specialty physicians was associated with higher mortality.*** When the supply of primary care physicians was disaggregated into family physicians, general internists, and paediatricians, ***only the supply of family physicians showed a significant relationship to lower mortality*** (Shi et al, 2003).

The supply of primary care physicians was found to be significantly associated with reduced cerebrovascular stroke mortality and even wiped out the adverse effect of income inequality (Shi et al. 2003).

A greater supply of primary care physicians was associated with lower infant mortality as well and ***persisted after controlling for various socioeconomic characteristics and income inequality.*** County-level analyses confirmed the positive influence of an adequate supply of primary care physicians by showing that all-cause mortality, heart disease mortality, and cancer mortality were lower where the supply of primary care physicians was greater.

In England, the standardized mortality ratio for all-cause mortality at 15 to 64 years of age is lower in areas with a greater supply of general practitioners. ***Each additional general practitioner per 10,000 population (a 15 to 20 percent increase) is associated with about a 6 percent decrease in mortality.*** (Gulliford, 2002) A later study (Gulliford et al, 2004) found that the ratio of general practitioners to population was significantly associated with lower all-cause mortality, acute

myocardial infarction mortality, avoidable mortality, acute hospital admissions (both chronic and acute), and teenage pregnancies, but the statistical significance disappeared after controlling for socio-economic deprivation and for partnership size, which the authors interpreted as suggesting that the structural characteristics of primary care practices may have had a greater impact on health outcomes than did the mere presence of primary care physicians.

B. Patients' Relationship to Primary Care Facilities and Providers

(Starfield et al, 2005). *Not all references are listed in section 11*

People who identify a primary care physician as their usual source of care are healthier, regardless of their initial health or various demographic characteristics (Franks and Fiscella 1998). U.S. populations served by community health centres, which are required to emphasize primary care as a condition for federal funding, are healthier than populations with comparable levels of social deprivation receiving care in other types of physicians' offices or clinics (O'Malley et al, 2005). People receiving care in community health centres receive more of the indicated preventive services than does the general population (Agency for Healthcare Research and Quality, 2004).

In Spain, death rates associated with hypertension and stroke fell most in those areas in which the reforms strengthening primary health care were first implemented. There even were fewer deaths from lung cancer in those areas.

Outcomes of care after surgery in Canada also were shown to be better when care was sought from a primary care physician who then referred children to specialists for recurrent tonsillitis or otitis media, compared with self-referral to a specialist (Roos, 1979). The referred children had fewer postoperative complications, fewer respiratory episodes following surgery, and fewer episodes of otitis media after surgery, thus implying that ***specialist interventions were more appropriate when patients were referred from primary care.***

Cuba and Costa Rica, which reformed their health systems to provide people with a source of primary care, now have much lower infant mortality rates than do other countries in Latin America. (Starfield et al, 2005)

In summary, studies of the impact of actually receiving care from a primary care source consistently show benefits for a variety of health and health-related outcomes.

C. How Well the Characteristics of Primary Care Are Achieved

(Starfield et al, 2005). *Not all references are listed in section 11*

Three studies, one using data from the mid-1980s and two from a decade later, demonstrated not only that those countries with stronger primary care systems generally had a healthier population but also that certain aspects of policy were important to establishing strong primary care practice.

The score for the practice characteristics was highly correlated with the score for the policy characteristics. That is, the adequate delivery of primary care services was associated with supportive governmental policies. The second finding is that those countries with low primary care scores as a group had poorer health outcomes, most notably for indicators in early childhood, particularly low birth weight and post-neonatal mortality. (Starfield, 1991, 1994).

A more recent comparison, with 13 countries and an expanded set of indicators of both primary care policy characteristics and health outcomes, also showed better health outcomes for the primary care-oriented countries even after controlling for income inequality and smoking rates, most significantly for post-neonatal mortality ($r = .74, p < .001$) and rates of low birth weight ($r = .38, p < .001$). **Countries with weak primary care systems also performed less well on most major aspects of health, including mental health, such as years of potential life lost because of suicide** (Starfield and Shi, 2002). **The most consistent policy characteristics examined were the government's attempts to distribute resources equitably, universal financial coverage that was either under the aegis of the government or regulated by the government, and low or no patient cost sharing for primary care services** (Starfield and Shi, 2002). The latter two were studied by Or (2001) who confirmed the findings that these policies are positively correlated with better outcomes.

The positive contributions of primary care to health also were found in a much more extensive time-series analysis of 18 industrialized countries, including the United States (Macinko, Starfield, and Shi 2003). **The stronger the country's primary care orientation (as measured by the same scoring system as in the earlier international comparison) was, the lower the rates were of all-cause mortality, all-cause premature mortality, and cause-specific premature mortality from asthma and bronchitis, emphysema and pneumonia, cardiovascular disease, and heart disease. This relationship held even after controlling for various system characteristics (GDP per capita, total physicians per 1,000 population, percentage of elderly people) and population characteristics, including the average number of ambulatory care visits, per capita income, alcohol consumption, and tobacco consumption. The analyses estimated that increasing a country's primary care score by five points (on a 20-point scale) would be expected to reduce premature deaths from asthma and bronchitis by as much as 6.5 times.**

Thus it is evident that the three levels of evidence all show that primary care scores are associated with superior outcomes:

- a. **That health is better in areas with more primary care physicians**
- b. **That people who receive care from primary care physicians are healthier**
- c. **That the characteristics of primary care are associated with better health**

2. Evidence of effect of primary care in special populations and health care areas.

(Starfield et al, 2005)

In addition to the evidence above, other studies have explored other elements of primary care which are advantageous in special populations and health care areas. For example, in the US, **higher ratios of primary care physicians to population are associated with relatively greater effects on various aspects of health in more socially deprived areas.** As in state-level analyses, the adverse impact of income inequality on all-cause mortality, heart disease mortality, and cancer mortality was considerably diminished where the number of primary care physicians in county-level analyses was high (Shi et al, 2005). **The supply of primary care physicians in the U.S. states has a larger positive impact on low birth weight and infant mortality in areas with high social inequality than it does in areas with less social inequality** (Shi et al, 2004). U.S. studies show that an adequate supply of primary care physicians reduced disparities in health across racial and socioeconomic groups.

Disparities in low-birth-weight percentages between the majority white and African American infants are fewer in infants of mothers receiving care in primary care-oriented community health

centers, compared with the population as a whole. Health systems oriented toward primary care services (such as in the United Kingdom) are effective in reducing the disparities in health care so prominent in the United States (Agency for Healthcare Research and Quality, 2004).

3. Costs of Care

(Starfield et al, 2005)

In addition to its relationship to better health outcomes, the supply of primary care physicians was associated with lower total costs of health services, possibly partly because of better preventive care and ***lower hospitalization rates***. International comparisons of primary care showed that those countries with weaker primary care had significantly higher health care expenditures (Starfield and Shi, 2002).

4. Rationale for the Benefits of Primary Care for Health

It seems evident that primary care offers great potential as a core element of any national health care system (NHS), and that specific and characteristic features are associated with better outcomes mediated by primary care, and of systems with strong primary care elements. What is the mechanism by which primary care mediates better health? Is it ***only*** via health prevention and health promotion, or are other aspects important?

Six mechanisms, alone and in combination, may account for the beneficial impact of primary care on population health. They are (1) greater access to needed services, (2) better quality of care, (3) a greater focus on prevention, (4) early management of health problems, (5) the cumulative effect of the main primary care delivery characteristics, and (6) the role of primary care in reducing unnecessary and potentially harmful specialist care. (Starfield et al, 2005)

- i. *Primary care increases access to health services for relatively deprived population groups:*
One of the main functions of a primary care source is reducing or eliminating difficulty with access to needed health services (see section 2).
- ii. *The contribution of primary care to the quality of clinical care:*
General practitioner (GP) diabetic clinics in the United Kingdom were found to do as well as hospital specialists in monitoring for diabetic complications (Parnell, Zalin, and Clarke, 1993). In addition, in systems in which the GPs were given additional educational support and had an organized system for recall, GPs' care of diabetic patients was better than that of specialists in hospitals. If the interest is in patients' health (rather than disease processes or outcomes) as the proper focus of health services, primary care provides superior care, especially for conditions commonly seen in primary care, by focusing not primarily on the condition itself, but on the condition in the context of the patient's other health problems or concerns. In short, primary care physicians do at least as well as specialists in caring for specific common diseases, and they do better overall when the measures of quality are generic. For less common conditions, the care provided by primary care physicians with appropriate backup from specialists may be the best; for rare conditions, appropriate specialist care is undoubtedly important, as primary care physicians would not see such conditions frequently enough to maintain competence in managing them.
- iii. *The impact of primary care on prevention.*

The evidence strongly shows that preventive interventions are best delivered when they are not related to any one disease or organ system, as typically occurs in primary care. Examples of these "generic" (i.e., not limited to a particular disease or type of disease) measures are breast-feeding, not smoking, using seat belts, using smoke detectors, being physically active, and eating a healthy diet. So, for example, a greater supply of family physicians (although not necessarily internists) is associated with an earlier detection of breast cancer, colon cancer, cervical cancer, and melanoma (Campbell et al, 2003; Ferrante et al, 2000; Roetzheim et al, 1999, 2000), and most mammograms (87 percent) are ordered by primary care physicians. (Schappert, 1994)

- iv. *The impact of primary care on the early management of health problems.*
Primary care has demonstrated impact on managing health problems before they are serious enough to require hospitalization or emergency services. Shea and colleagues (1992) examined the relationship between having a primary care physician as the source of care and hospitalization for reasons that should be preventable by good primary care. The study found that those admitted for the preventable complications of hypertension were four times more likely to lack a primary care provider than were those admitted for a condition unrelated to hypertension. ***In the United Kingdom, each 15 to 20 percent increase in GP supply per 10,000 population was significantly associated with a decrease in hospital admission rates of about 14 per 100,000 for acute illnesses and about 11 per 100,000 for chronic illnesses.***
- v. *The cumulative effect of the main primary care delivery characteristics*
- vi. *The impact of primary care on the early management of health problems.*

In the United States, rates of hospitalization for conditions that should be preventable by exposure to good primary care (ambulatory care-sensitive conditions, or ACSC) are strongly associated with socioeconomic deprivation, at least in part because socially disadvantaged populations are less likely to have a good source of primary care. In contrast, in Spain, ***the rates of hospitalization for these conditions were not associated with socioeconomic characteristics, indicating that the Spanish health system's primary care orientation reduced the hospitalization rates for these conditions despite social disadvantage.*** The literature is consistent in showing that lower rates of hospitalization for ACSC are strongly associated with the receipt of primary care. Geographic areas with more general practitioners have lower hospitalization rates for these types of conditions, including diabetes mellitus, hypertension, and pneumonia (Parchman and Culler, 1994). Children receiving their care from a primary care source that fulfills the criteria for its main characteristics have lower hospitalization rates for these conditions as well as lower hospitalization rates overall. These findings are associated with the greater receipt of preventive care from primary care providers (Gadomski, Jenkins, and Nichols, 1998).

PHC is often like an "antibody", shaping itself to lock onto the "antigen" of health needs. It is different in different countries, shaping itself to address the health care needs of different patients, communities, and nations.

5. What are the advantages and disadvantages of restructuring a health care system to be more focused on primary care services? (WHO, 2004)

The issue

Governments are searching for ways to improve the equity, efficiency, effectiveness, and responsiveness of their health systems. The evaluation of evidence is complex for a number of reasons, including differing definitions of services, staff and the boundaries between primary and secondary care, changing organizational structures, and an increasing reliance on primary care teams. (WHO, 2004)

The evidence

As described above, various international studies show that the strength of a country's primary care system is associated with improved population health outcomes for all-cause mortality, all-cause premature mortality, and cause-specific premature mortality from major respiratory and cardiovascular diseases. This relationship is significant after controlling for determinants of population health at the macro-level (GDP per capita, total physicians per one thousand population, percentage of elderly) and micro-level (average number of ambulatory care visits, per capita income, alcohol and tobacco consumption). Furthermore, increased availability of primary health care is associated with higher patient satisfaction and reduced aggregate health care spending. Studies from developed countries demonstrate that an orientation towards a specialist-based system enforces inequity in access. Health systems in low income countries with a strong primary care orientation tend to be more supportive of the poor, equitable and accessible. At the operational level, the majority of studies comparing services that could be delivered as either primary health care or specialist services show that using primary care physicians reduces costs, and increases patient satisfaction with no adverse effects on quality of care or patient outcomes.

The main disadvantage of expansion of primary health care services is that such expansion may not always reduce costs because it ends up identifying previously unmet needs, improves access, and tends to expand service utilization. (WHO, 2004)

Policy considerations

The available evidence demonstrates some advantages for health systems that rely relatively more on primary health care and general practice in comparison with systems more based on specialist care in terms of better population health outcomes, improved equity, access and continuity and lower cost. However, a stronger evidence base is needed to make the evidence available universally applicable. (WHO, 2004)

The WHO has made clear and unequivocal statements supporting PHC as a core element of any NHS, at Alma Ata in 1978 (WHO, 1978) and most recently in the World Health Report of 2008 (WHO, 2008).

SUMMARY

The question of why primary care works has been posed in various ways. We looked at primary care systems as a whole, at the performance of different elements of primary care systems, at the effects of primary care on various health problems and sub-groups of patients. We also looked at whether any benefits come at increased health care system costs. The available evidence demonstrates some advantages for health systems that rely relatively more on primary health care and general practice in comparison with systems more based on specialist care in terms of better population health outcomes, improved equity, access and continuity and lower cost. (WHO, 2004) It is evident that the three levels of evidence all show that primary care scores are associated with superior outcomes.

5. EVIDENCE BASE FOR THE INDIVIDUAL CHARACTERISTICS OF PRIMARY CARE

The four main features of primary care services studied by Starfield include:

1. first-contact access for each new need;
2. long-term person- (not disease) focused care;
3. comprehensive care for most health needs;
4. and coordinated care when it must be sought elsewhere.

Of these four main features of primary care, is there one or more that may be excluded from a health care system reform without losing the benefit of a strong primary care system?

Primary care is assessed as "good" according to how well these four features are fulfilled. For some purposes, an orientation toward family and community is included as well. The international studies referred to in the previous sections demonstrated not only that those countries with stronger primary care generally had a healthier population (Lancet, 1994) but also that certain aspects of policy were important to establishing strong primary care practice. (Starfield 1991, 1994, Starfield and Shi 2002, Macinko, Starfield, and Shi 2003). **As such, it seems evident that including ALL four elements will increase the primary care "score" of a health care system, and this is associated with most of the benefits reported above, including those on mortality, morbidity, satisfaction, and cost.**

6. MODELS OF PRIMARY CARE

How best to deliver primary care?

Various systems exist to deliver primary health care, and each system differs from the next. However, not all of the different systems include the characteristics of primary care which have been shown to be supported by evidence. This explains why different national health care systems may achieve desirable outcomes to varying degrees.

In this context, which models of primary care delivery have been shown to perform better than others?

How many primary care personnel are needed?

Between 75% and 85% of people in a general population require only primary-care services within a period of one year. The remaining proportion require referral to secondary care for short-term consultation (perhaps 10-12%) or to a tertiary care specialist for unusual problems (5-10%). In Malta, as has been found elsewhere, 95% of episodes of care start and end in the family doctor's office. (Starfield, 1994, Soler and Okkes, 2004, Soler, 2007)

The gate-keeping function

The first-contact feature of primary care implies that patients do not visit specialists without a recommendation from their primary-care practitioner. Since specialists are much greater users of tests and procedures, and since all such interventions have a finite risk of iatrogenic complications (as well as a cost-inflating effect), ***the interposition of primary care is protective for patients in reducing both unnecessary procedures and adverse events***. In many areas (particularly in the United States), the first-contact aspect of primary care is regarded as a threat to free choice and therefore incompatible with a market (competitive) approach to the delivery of health services. A reasonable compromise might be to ensure free choice of primary-care source where there is a sufficient supply of primary-care personnel to permit choice. (Starfield, 1994, Franks et al, 1992)

Patient orientation

One of the key characteristics of general practice / family medicine is that it is very responsive to patient needs (EURACT, 2005), no less so in Malta (Soler and Okkes, 2004). The family doctor responds to patient requests expressed as reasons for encounter, a central concept in the International Classification of Primary Care (Lamberts and Wood, 1987). Family practices are shaped around the community and the people who use their services, and are the most patient-centred of all medical services (EURACT, 2005)

Medical Records

A central element of the core characteristic "longitudinality" is the availability of accurate and accessible information on the patient and his/her problems, besides other relevant clinical information such as investigation results and prescriptions. Decision support systems, of which prescribing systems are possibly the most common, are also useful to support clinical care.

A review of extant models

This section will present international literature and reports on primary care models in various countries, for reference. This is divided into two sections: i) a review of the literature and ii)

feedback from international experts invited to a recent National Conference on Primary Care organised by the Medical Association of Malta. (Medical Association of Malta, 2008)

i) Literature review of national models of primary care within various health care systems

The United Kingdom

(McAvoy, 2000)

There are approximately 11,000 practices in the UK, with an average list size of 1,821 patients per GP (Compared to 2,011 in 1985). Only 10% of practices are single-handed, with 13% having two partners, 16% three partners, 18% four partners, 17% five partners and 26% having six or more partners.

In terms of workload the average GP spends:

- 39 hours/week on general medical services (GMS)
- 58 hours/week on non-GMS duties plus on call

On average he or she will have 152 consultations per week, 87% of these being at the surgery, leaving over 10% of consultations as home visits. The average consultation time is 8.4 minutes and the average home visit time (including travel) is 25.2 minutes.

Seventy-one per cent of consultations involve issuing a prescription, with the average number of items per person being 8.8 per year. Seventy-five percent of prescriptions are for repeats- the GP drug bill accounts for 10% of the total NHS budget. Thirteen per cent of patients are referred on to secondary care.

The NHS has been in continuous evolution, but the pace of change has accelerated over the past 10 years. Key developments have been:

The "Dark Ages" (1948-1966)

- Single handed and on call at all times
- Home as surgery and wife as receptionist
- Income from capitation only

The "Renaissance" (1966-1986)

- Group practices and primary health care teams
- Better premises
- Academic Departments

The "Reformation" (1986-1990)

- New GP contract
- NHS reforms

"Modern Times" (1990-2000)

- Strategic shift to primary care

The five strategic themes in the NHS in the 1990's:

1. Value for Money

Efficiency
Equity
More for less

2. Quality

Clinical Audit
Clinical Effectiveness
Evidence-based medicine

3. Engaging with Patients

Information for patients
Patients' involvement
Patients' rights and responsibilities

4. More influence for GP's

GP fund holding
Locality commissioning
GP involvement with health authorities

5. More community-based services

Extension of primary-care
Hospital at home
Hospital outreach

The strategic shift to primary care involved:

1. Capital assets

Through GP fund-holding savings

2. Provision of care

Wider range of services in the community

3. Commissioning of care

GP Fund-holding
Locality Commissioning
Total Purchasing
Primary care groups (PCGsS)

4. Sitting at the top-table

GP involvement in local health strategy
GP's in senior positions in health authorities

(Department of Health and Children, 2001)

The composition of primary care teams in the UK varies from area to area. Some teams consist of GPs, nurses and practice administration staff, whereas others also have physiotherapists, phlebotomists, etc. A document entitled *Primary care, general practice and the NHS plan* was published in January 2001. This document acknowledges that the future of the NHS rests on the strength of its primary care. Some of the key points recommended in this report are:

- further development of flexible inter-disciplinary team-working to deliver better services to patients
- the development of 500 one-stop primary care centres by 2004
- nurses undertaking more roles
- extending the role of pharmacists
- better use of receptionists and practice nurses to deal with coughs, colds and minor ailments.

The report stated that nurses and health visitors will undertake a wider range of roles determined by patient and community need. They will be trained to take on more of the routine and minor ailment workload enabling GPs to spend more time with patients and concentrate on those who need their expertise.

(McDonald J et al, 2006)

Primary care in United Kingdom has been subject to considerable reform in recent years. The focus during the early to mid 1990s was to increase competition within the National Health Service (NHS), predominantly through the creation of an internal market. GP fund-holding and other variations were introduced which enabled GPs to purchase secondary care services. Whilst fund-holding covered up to 40% of the population by 1995 and had led to reduced waiting times and elective hospital admission rates, it was costly and considered unfair, and was dismantled in 1997.

The election of the Labour government in 1997 saw an overhaul of the NHS and substantial primary health care reinvestment to address a number of challenges, including variable quality of care, lengthy waiting times to see a GP and many practices not accepting new patient enrolments. It was during this period that collaboration replaced competition as a significant policy theme. A major structural reform was the establishment of Primary Care Groups in 1997 which became Primary

Care Trusts in 1999. This placed primary care at the centre of the NHS and has involved a substantial shift in power. Primary Care Trusts integrate family health services and community health care within one organisational structure.

District health nurses and health visitors are sometimes attached to practices and sometimes they are area-based. The former provide a range of home-care type services and the latter provide more public health type functions, including immunisation, health education and health promotion services. Practice nurses are also employed by practices, and larger practices have the capacity to employ a broad range of allied health staff.

The 1990 General Medical Services contract saw a substantial rise in the numbers of nurses working in practices and an extension of their role to incorporate chronic disease management and some preventive care. Workforce modernisation and flexibility have been key strategies for addressing a number of challenges. In particular, there has been a focus on extending the roles of nurses, pharmacists and allied health professionals.

There has also been a trend towards larger practices of seven or more GPs, although single-handed practices still account for one third of all practices in England. Primary Care Access Targets have been established and this has stimulated the development of a range of nurse-led primary care developments, including walk-in clinics and a national 24 hour telephone advice line. Improving quality of care has been a major policy focus and has included the development of national service frameworks in a number of areas which set minimum standards for the delivery of health services. Financial incentives for improved performance have also been introduced as part of the new General Medical Services contract, which incorporates the Quality and Outcomes Framework.

Important principles that run through much of the recent reforms include an emphasis on a patient-led and locally driven NHS and patient choice. Despite the considerable upheaval and ongoing primary health care reform processes, public confidence in primary health care, including GPs and other health professionals remains high.

Following political devolution, the health systems of Northern Ireland, Scotland and Wales have diverged from those in England. In Scotland, although organisations termed Primary Care Trusts were developed, they did not have the same responsibilities (e.g. no commissioning responsibility) as in England, and they were subsequently abolished. The major thrust of Scottish reforms is a focus on partnerships, integration and redesign with the intention that care is delivered locally, access should be improved, inequalities in health tackled, and workforce and facilities are fit for purpose.

Northern Ireland

(Jordan et al, 2006)

Primary care teams, which bring together general practitioners and community health and social care professionals, including pharmacists and general dental practitioners, are most often the first point of contact that patients have with health and social services. They play an increasingly important role in sustaining chronically-ill people in the community, and act as gatekeepers referring on to appropriate levels of acute care.

Caring for People beyond Tomorrow, the strategic framework for the development of primary health and social care, sets out a clear direction for the development of primary care services in Northern

Ireland. Through the new General Medical Services (GMS) contract, directed enhanced services are being planned for people suffering from certain chronic respiratory conditions and diabetes. These services should help to ensure a proactive approach to identify and provide managed care for people with chronic conditions. In recent years there have been substantial increases in the number of people receiving support from social services.

Between 1997 and 2001 the total number of community care packages increased by 29%; that is 3,900 packages were made available, providing individuals with the support and care they need to continue living as independently as possible in the community. A care package is the main form of care that has been recommended for a client through the care management process. Care packages are provided in the form of places in nursing and residential homes as well as domiciliary care in an individual's own home. Separate services are also provided in terms of home help and meals on wheels, as well as places in day care centres. The current main emphasis is on increasing the proportion of support delivered in people's own homes.

Ireland

(Department of Health and Children, 2001)

This document summarises the direction of primary care reforms in Ireland.

Primary care team

Primary care will be centred on the needs of individuals and groups of people and will match their needs with the competencies required to meet them. Some of the essential competencies will include assessment, diagnosis, therapy, nursing, midwifery, prevention, health education, counselling, administration, management, social services, referral and rehabilitation.

A group of primary care providers will come together to form an inter-disciplinary team, known as the primary care team. These teams will serve small population groups of approximately 3,000-7,000 people, depending on whether a region is rural or urban. Among other factors, the number and ratio of team members will depend on needs assessment, location and population size. In the long term, approximately 600-1,000 primary care teams will be required nationally, based on a population of 3.8 million. Teams will include appropriate levels of administrative support. A wider network of additional professionals will be formed to provide the therapy services required by a number of core primary care teams.

Primary care network

It is envisaged that a wider network of health and social care professionals will be formed who will work with a number of primary care teams. Each primary care team will have access to a range of health and social care professionals who will provide services for members of their enrolled population group. Members of the network will work with more than one primary care team. Formal communications processes will be established between the core primary care team and the wider network of professionals. Named members of the primary care network will be designated to work with specific primary care teams.

Information and communications technology

Appropriate electronic communications and electronic record systems are central to the operation of both the primary care team and the wider network of professionals. There will be considerable investment in information and communications technology infrastructure. This will include the

development of an electronic health record based on a unique client number. Patient information will remain confidential and will only be available to those team members who need it.

Enrolment with primary care team

GPs and other professionals keep records of patients who utilise their services. However, it is recognised that these systems may be inadequate for key functions such as comprehensive call and recall as required for screening and immunisation. In this regard, practice registers are an essential component of high-quality primary care. The Health Strategy 2001 envisages a system whereby people are invited to actively enrol.

All individuals will be encouraged to enrol with one primary care team, and with a particular GP within the team. Where appropriate for an individual's needs, a key worker will be identified.

Enrolment will be voluntary. The benefits of enrolling with a team will include better continuity of care, improved co-ordination of services, and more attention to preventive services. Enrolment will not reduce people's choice of provider and patients will be free to seek care wherever they wish. Individual members of a family will be able to enrol with different teams or with different doctors within the team. The system will also allow people to change their nominated team or doctor.

Access to primary care team

Individuals will be able to self-refer to any given member of the primary care team or network as appropriate. There will also be a system of triage and referral at the point of access available for those who wish to use it. This will ensure that people can be linked with the most appropriate professional for their needs.

Access to primary care services, particularly out-of-hours, will be improved for all, following the introduction of this new model of primary care. Services will be more flexible to accommodate those who work during the day. This system will build on the strengths of the current co-operative model for GPs. ***The hours during which all of the basic primary care services are provided will be increased, with a number of essential services on a 24-hour basis.*** An improved range of services will also be provided at weekends.

Eligibility

The broad issue of eligibility is addressed in the Health Strategy (2001) document. The main actions outlined are as follows:

- New legislation to provide clear statutory provisions on entitlement will be introduced
- Eligibility arrangements will be simplified and clarified
- Income guidelines for medical card eligibility will be increased
- The number and nature of free GP visits for an infant under the Maternity and Infant Care Scheme will be extended.

Broad focus for primary care services

The primary care team will work with local populations and other agencies to identify health and social needs. It will also provide appropriate responses including the range of general medical services in addition to the generalist aspects of services for mental health, elderly care, drug misuse, disabilities, family support and child health. ***This will necessitate inclusion of personal social services staff on the teams.***

Population health services will be strengthened and expanded to ensure widespread uptake of initiatives such as screening, immunisation and early intervention. Primary care teams will be facilitated and funded to develop and expand cross-sectoral activities which can promote and protect the health of people and families enrolled with them through, for example, school and community-based health education, counselling and classes, links to local area action plans to provide integrated information and services, as well as links to community development projects.

Broadening the focus of primary care means the re-allocation of responsibility to the primary care team for services which are currently provided in specialist care settings but which may require less extensive specialist input. Examples include care of those with diabetes mellitus, high blood pressure, routine ante-natal and postnatal care, child health surveillance and generalist mental health services.

Co-ordination of primary care and specialist services

The primary care team will liaise with specialist teams in the community to improve integration of care. Community-based specialist teams are already in existence in the community for many specific care groups. The primary care team will integrate with these community-based specialist teams in ways similar to how the primary care team will integrate with the specialist institutional services, e.g. acute hospitals. The benefit of this from the perspective of users is that they are facilitated, through a single point of contact, in accessing whatever specialist services they require.

Examples of specialist teams based in the community include:

- Palliative care
- Mental health
- Child care
- Disability (intellectual and physical/sensory)
- Special client groups (e.g. homeless, Traveller health teams)
- Community services for the elderly.

Primary care teams have the potential to deliver much of the care currently provided by specialist services. However, realising this potential will require better integration between secondary and primary care services.

Primary care teams will have direct access to appropriate hospital-based diagnostic services based on local protocols, which can support earlier intervention and better on-going care for individuals. In addition, community-based regional diagnostic centres to support primary care and care in the community will be piloted and evaluated. There will also be improved shared care arrangements for patients with conditions such as diabetes and asthma, to enable them to be managed more effectively and by a broader range of professionals in the community. Local arrangements will also be put in place covering referral protocols, discharge plans, individual care plans, integrated care pathways and shared care arrangements. Some of these developments will require certain team members to act as key workers for individuals with complex chronic care needs.

Location of primary care teams

Though not essential, primary care team members should ideally be located on the same site or in very close proximity. The exact location will reflect local circumstances and the availability of appropriate pre-existing facilities. The role of public-private partnerships and other options will be explored as an alternative when premises are being sought to house the primary care teams.

Advantages for consumers and patients

One of the principal advantages for consumers and patients will be improved access to primary care services, particularly out-of-hours. The range of services provided in a primary care setting will also be increased, especially in areas such as prevention, health promotion and rehabilitation.

A variety of supports will be provided, e.g. health care assistants to support patients in the home, and thus reduce the need for crisis hospital admissions. ***Greater availability of GPs will allow for increased consultation time to the benefit of both patient and doctor.***

Many primary care services will be provided in a 'one stop shop' setting, which means that a patient or family can access a number of health care providers in the one centre. Patients who enrol with a particular team or doctor and wish to change will be facilitated in doing so. From an individual's point of view the system will become simpler and more supportive. A clarified and simplified system of eligibility will be provided so that people know what services they are entitled to and how they can access these services. Finally, information about health and the health services will be easily accessible via a single telephone and internet access point.

Advantages for professionals

Advantages for professionals involved in a primary care team will include improved access to other team members. ***Direct access to diagnostic facilities, secondary care services, and infrastructural and information technology supports will also be improved upon.*** The introduction of a properly resourced primary care team with its skill mix will ensure that many health professionals will have more time to engage in preventive activities and continuous personal and professional development. With the introduction of extended hours, working hours for many team members will become more flexible.

This model of primary care will also mean less stress and improved morale for the health care professionals involved. Career structures will be enhanced for all members of the primary care team. Research and development opportunities will also be improved.

Advantages for the health system

Primary care, planned and organised on this basis, could lessen the current reliance on specialist services and the hospital system (particularly accident and emergency and out-patient services) and, based on available evidence, would have the potential to reduce the requirement for specialist services, reduce hospitalisation rates, reduce lengths of stay for those who are hospitalised, promote more rational prescribing, and improve efficiency.

The Netherlands

(Department of Health and Children, 2001)

Health care in The Netherlands is provided by thousands of institutions, tens of thousands of contracted or self-employed health professionals and hundreds of thousands of other health

workers. Most health care facilities are owned and managed by not-for-profit, non-governmental entities of religious and charitable origins. As a rule, they have self-appointed boards responsible for overall policies and budget approval, but the management bears responsibility for ongoing daily business.

Most GPs work in small group practices, and there are a small number of health centres where they work with other health professionals. Almost all dentists have a solo practice. Physiotherapists outside institutions usually work in small group practices. Most other health professionals are employed by hospitals or other health care facilities and organisations.

The Ministry of Health provides financial support for the introduction of information and communication technologies, for example by providing subsidies to GPs for computer practice systems. Until 1989, GPs needed the permission of local authorities to set up a new practice, but this requirement no longer applies.

Australia

(McDonald et al, 2006)

The Australian health system is characterised by differing management responsibilities and a mix of private and public provision. The Commonwealth has major responsibility for general practice and the States/Territories have responsibility for hospitals and the network of publicly funded community health services. These characteristics coupled with a ***predominantly general practice fee-for-service payment system and commitment to ensuring consumer choice***, have a significant influence on the reform process and development of system-wide responses. Australia is also characterised by a large land mass and a population that is concentrated along the eastern sea board. This profile has a profound effect on the supply and provision of health services. Despite improvements in material and living conditions and in morbidity and mortality, ***there are still patterns of health inequalities remain, most pronounced in the Indigenous population.***

The General Practice Strategy released in 1992 aimed to “enhance the role of general medical practitioners beyond individual patient care, and to promote better integration of GPs with the rest of the health system”. The thrust of the Commonwealth reforms since then has been to enhance the capacity of general practice and to strengthen their collaboration with other health service providers. This is especially true in relation to improving the management of chronic disease through a mixture of financial incentives, program funding, grants, and workforce initiatives designed to improve access to GPs and other primary health care practitioners, building practice capacity and quality, providing practice support and education (including information management/technology), introducing standards and accreditation and other quality improvement programs, and strengthening research capacity and the evidence-base. Initiatives designed to overcome Commonwealth/State funding fragmentation have also been trialled, but have not been implemented across the system. ***However, as many commentators have observed, the lack of a national primary health care policy or strategic framework continues to impede the development of a national and comprehensive approach to primary health care.***

Common priority areas for State/Territory-funded community health services have included: improving the integration between primary health care and specialist/acute services; reducing avoidable use of hospitals; better management of chronic and complex conditions; and improving service coordination across the range of primary and community health services. There is some

evidence that these developments are impacting on workloads and service delivery patterns of community health nurses.

New Zealand

(Department of Health and Children, 2001)

In February 2001, a new primary care strategy was launched in New Zealand. All people are encouraged to enrol with a primary care provider. Enrolment is voluntary. If persons choose not to enrol they will still be entitled to seek care but they may miss out on some preventive services.

(McDonald et al, 2006)

The background and context to the primary health care reforms of the 1990s and into the early 2000s included a lack of integration between primary care providers; an uncertain and often confrontational relationship with governments; uncontrolled growth and demand-driven funding, especially for laboratory and pharmaceutical services; a lack of collective accountability for cost and quality of care; underdeveloped and underused information management/technology systems; and little community participation in primary health care development.

The reforms of 1993 introduced a 'quasi'-market model into health, involving the establishment of a stand-alone purchasing role and increased contracting and competition between providers for contracts. The reforms were very unpopular, but in primary health care they did result in some positive changes, in particular: the shift of primary health care providers onto explicit contracts, increasing their accountability; the development of networks of primary health care providers (especially amongst GPs, but also amongst not-for-profit community-governed primary health organisations); and the use of new forms of funding such as capitation, budget-holding and global budget-holding.

Despite these developments, a lack of clear direction for primary health care and concerns over poor access to primary health care arising from high user charges led to the release of a Primary Health Care Strategy in 2001. This Strategy was released not long after the establishment of 21 District Health Boards responsible for planning, providing hospital and community health services and contracting with primary health care and community service providers. The Strategy is aimed at developing a strong primary health care system, in order to improve health and to reduce inequalities in health. There are three major organisational and policy changes occurring to implement the Primary Health Care Strategy:

- ***increased government funding for primary health care to reduce fees and increase subsidies;***
- ***the development of Primary Health Organisations as local non-government organisations which serve the needs of an enrolled group of people; and***
- ***introduction of capitation funding for Primary Health Organisations***

Two forms of Primary Health Organisation funding were initially created – ***access funding for disadvantaged enrolled populations and interim funding for the remainder***. Since 2003, the government has provided further funding; has focused on increasing subsidies for particular age-related population groups in interim-funded PHOs; and has contracted for the majority of the new funding to be passed on in the form of reduced user charges. In addition, a separate funding

arrangement has been established for those with chronic illnesses, known as 'Care Plus'. All Primary Health Organisations also receive additional funding for services to improve access, for management costs, and for health promotion.

Sweden

(European Observatory on Health Systems and Policies, 2005)

The purpose of primary care is to improve the general health of the population and to treat diseases and injuries that do not require hospitalization. Primary health care is also responsible for guiding the patient to the right level within the health system. ***According to a government decision in 1995, all physicians in primary care medicine must be specialists in general practice.*** General practitioners provide treatment, advice and disease prevention. The other practitioners directly employed at this level are nurses, midwives, physiotherapists and gynaecologists.

Each county council has the freedom to decide how to serve its population in terms of primary care. Primary care is mainly publicly provided. However, there are also private providers at this level and, in addition to provision at local health centres and family physicians' surgeries, primary care is supplied by private physicians and physiotherapists, at district nurses' clinics and at clinics for child and maternity health care. Private health centres and practitioners are relatively common in major cities and in urban regions. In 2003, Sweden had around 1100 health centres, of which approximately 300 were privately run.

Norway

(European Observatory on Health Systems and Policies, 2006)

The municipalities are responsible for providing primary health care and ensuring the wellbeing of the population, as well as good social and environmental conditions. Furthermore, they are responsible for providing information on health and encouraging lifestyle activities for the community that promote public health and individual health and wellbeing. The decision regarding the amount of local funds that can be spent on the health sector is left to the discretion of local politicians.

Primary health care and general practice are well established in Norway. General physicians form the central part of the primary health care system, and the most common structures comprise teams of two to six physicians. In 2001, each municipality was given the responsibility to provide a physician for every citizen; a regular general practitioner scheme was established. The municipalities meet this obligation through contracts with general physicians. According to the Ministry of Health and Care, the scheme is functioning well, with 98% of the population having a regular general physician. The provision of emergency care (that includes the general physicians) is also an important task for the municipalities.

Canada

(Department of Health and Children, 2001)

In Saskatchewan, Canada, a Commission on Medicare which produced its report in April 2001 recommended the development of an integrated system for the delivery of primary care services by:

- establishing primary health service teams bringing together a range of health care providers including general practitioners
- integrating individual teams into a primary health network
- ensuring that comprehensive services, including a telephone advice service, are available 24-hours a day, seven days a week.

The commission stated that team-based delivery of primary health services is recognised around the world as the most effective way to deliver everyday health services. All provinces in Canada have launched primary health care demonstration projects, with doctors, nurses, therapists and social workers operating as inter-disciplinary teams, each contributing unique skills which, taken together, ensure a comprehensive range of services.

The Canadian strategy document acknowledged the fact that although most organisations of health care professionals support the idea of primary health teams there are different ideas about how these teams should work. The group outlined the practical steps necessary to make primary health service teams and networks work. These include the following:

- Primary health teams should include providers such as physicians, primary care nurses, home care nurses, dieticians and mental health nurses
- All members of the primary health team are responsible for ensuring that a comprehensive range of services is available to meet client needs. This consists of a standard set of services including 24-hour access
- Primary health practitioners are co-located whenever practicable, so as to promote a positive environment for integrated practice
- Primary health teams serve a defined population, with citizens free to choose or change providers.

The advantages for team members would be improved quality of working life, reduced on-call responsibilities, freeing up of physicians to make the best use of their training and expertise, opportunities for all members to employ their training and skills and closer integration with other health care professionals. A strategy document entitled "Primary care reform: a strategy for stability" was recently produced by the Ontario Medical Association. Some of the key features of this strategy document were:

- ***patient registration with a solo provider, group or agency***
- ***implementation of an electronic patient record (EPR); EPR-information follows patient to all interactions within the health care system***
- ***provision of 24-hour services, such as after-hours clinics or 24-hour telephone information***
- ***economic incentives for integration of primary care. Inter-disciplinary teams encouraged through budget restructuring resulting in integrated organisation.***

ii) Key messages from presentations at the MAM National Conference on Primary Care, 8th November 2008 (Medical Association of Malta, 2008)

1. Dr. Tynyn John

(International Secretary, British Medical Association, United Kingdom)

- i. referral rate to secondary care is 5 per 100 consultations
- ii. 90% of health care work done in primary care, 80% of health care budget goes to hospitals
- iii. To reduce hospital deaths by 5000 per year in the UK you need either 9000 specialists or 2300 GPs
- iv. CORE values are:
 1. patient registration
 2. continuity of care
 3. a life-long medical record
 4. high quality services
 5. holistic care
 6. low cost (20 pence per patient per day)
- v. Payment system based on:
 1. Weighted capitation
 2. Items of service
 3. Targets and Quality and Outcomes Framework
 4. Allowances for the practice
 5. Enhanced services (e.g. ultrasound, extra staff, etc.)
- vi. ***GP and Hospital Consultant pay are similar***
- vii. Government undervalues primary care (expected average QOF score by GPs to be 535, in fact it is 955!)

2. Dr. Liam Lynch

(Irish Medical Association, Republic of Ireland)

- i. Patients choose their doctor in Ireland
- ii. ***Two models in partnership: government practices and private practices***
- iii. ***ALL patient treated equally irrespective of choice of system/doctor***
- iv. ***70% of the population opt for private practice GP***
- v. ***50% of Irish have private health insurance***
- vi. ***There is a fee for accident and emergency consultations, unless referred by GP***
- vii. Continuity of care – knowledge of patient and family
- viii. ***GPs have ownership of their practices***
- ix. ***GPs do both general practice and occupational medicine work***
- x. Modern computerised IT is a key issue: there is a “black hole” of data from GP worldwide
- xi. ***Payment system based on:***
 1. ***Weighted capitation***
 2. ***Support practice expenses***
 3. ***Special items of service:***
 - a. ***Women’s health***
 - b. ***Methadone prescribing***
 - c. ***Chronic disease care***
 4. ***Out of hours care***
 5. ***Social welfare certification***

6. Sick leave, study leave, pension contract

3. Prof. Frank Dobbs

(University of Ulster, Northern Ireland & experience as GP in Ireland)

- i. Key issue for the Maltese primary care reform include:
 1. ***Harmonising private and public care***
 2. ***Hospital services are over-developed***
 3. ***Patients play one doctor against another, fragmenting profession and care***
- ii. The history of the development of general practice care in Ireland:
 1. Pre-1972 care based on district medical officers
 2. 1972 – Choice of Doctor Scheme
 - a. Patient registration
 - b. Means tested – ***otherwise pay fee per visit***
 3. 1986 – Capitation introduced
 - a. Capitation based on age, sex, distance from practice
 - b. Support for premises, nurse, receptionist
 - c. Fees for special services
- iii. There is a fee for service for 70% of patients, hospital care is free for all
- iv. ***GPs have 800-1000 patients each, maximum 2000***
- v. **Malta could introduce a choice of doctor scheme**
 1. ***Registration with one doctor***
 2. ***Capitation fee***
 3. ***Infrastructure support***
 4. ***Quality improvement scheme***

SUMMARY

Various models of primary care exist around the world, but the one which seems to be most universally accepted is based on multi-disciplinary teams with a varied skills mix, including medical, para-medical, ancillary and social workers, led by family doctors and based in the communities to which they provide services. Patients register with one practice and with one named family doctor.

The role of government should be to finance the teams, with capital investment in premises and equipment, to regulate the service through local bodies (trusts, councils or committees), and to devolve care, including chronic disease care, from secondary to primary care through improving access to investigations and special interventions.

Enrolment in a system should be voluntary, with incentives provided for both patients and doctors to encourage enrolment.

Payment systems involve capitation (weighted for age and morbidity), fee for service (e.g. for vaccinations and screening), quality incentives, support for CME and professional development, sick leave and vacation leave, support for practice development and staff enrolment.

The closest model to the Maltese one seems to be that of the Republic of Ireland, which has both public and private systems running in parallel, but which has introduced reforms similar to those the Maltese Government intends to introduce.

The next section looks at the evidence to support the performance of one model better than another, based on outcomes assessment.

7. EVIDENCE FOR VARIOUS MODELS OF PRIMARY CARE

How best to deliver primary care?

What is the evidence to support one model over another, based on outcomes assessment?

We found one systematic review of evidence on various models of primary care, comparing the systems in the United Kingdom, Australia and New Zealand (McDonald et al, 2006) and one text based review of primary care models from the Irish NHS document “Primary Care: A New Direction Quality and Fairness – A Health System for you” (Department of Health and Children, 2001). The evidence from both reviews on models of primary care is summarised below.

1) McDonald J, Cumming J, Harris MF, Powell Davies G, Burns P. (2006). “Systematic review of system-wide models of comprehensive primary health care.” Research Centre for Primary Health Care and Equity, School of Public Health and Community Medicine, UNSW 2006:

The initiatives identified for this review relate to improving access to more comprehensive primary health care through primary health care collaboration, fall into three basic model types, although in reality, many are a mixture of models. These models types are:

- Organisational structures,
- Funding arrangements, and
- Workforce models.

Organisational models

- Divisions of General Practice (Australia)
- Aboriginal Community Controlled Health Services (Australia)
- Primary Care Partnerships (Australia, Victoria)
- Primary Health Care Networks (Australia, New South Wales)
- Community Health Services (Australia, Victoria)
- Primary Health Organisations (New Zealand)
- Primary Care Organisations: Independent Practitioners Associations, Not-for-profit, community-governed PCOs (New Zealand)
- Primary Care Groups/Trusts (United Kingdom)
- Local Health Care Cooperatives (Scotland)
- Community Health Partnerships (Scotland)

Funding models

- GP Funding incentives (Australia)
- Personal Medical Services (United Kingdom)
- General Medical Services contract (United Kingdom)
- Practice-based commissioning (United Kingdom)

Workforce models

- Nursing in General Practice Initiative (Australia)
- Primary Care Mental Health Workers (United Kingdom)
- Community Matrons (United Kingdom)

a) Organisational structure models

These models are mainly meso-level organisations for supporting development and/or coordination of services and implementing government initiatives at a local level. **Other key features these organisations tend to share include promoting cooperation between the range of primary care providers, increased collaboration between primary and secondary providers, and enhanced coordination of administration and budgets.**

Despite their difference, common findings across all structural models were that:

- 1. They have achieved change in organisation and delivery of primary care but there is less evidence for their impact on quality or outcomes.**
2. Their capacity to implement change depends on the levers at their disposal especially the degree to which they fund or commission primary health care service delivery.
3. Increased funding and devolution of responsibility has been accompanied by increased accountability and changes to governance that reduce the influence of general practitioners.
4. New organisations in primary care need time and stability to build capability, trust, culture and systems in sustainable ways.

b) Funding models

There is some evidence to suggest that payment methods can affect GP clinical behaviour. In particular, targeted payments can stimulate the quantity of particular primary health care services provided (e.g. immunisations). **However, we found no evidence from systematic reviews that different payment methods were associated with improved patient health status. There was also variable and insufficient evidence that targeted payments are effective in improving quality of care.** Nevertheless, **in theory at least**, incentives for evidence based practice (as in the UK Quality Framework) should lead to improved patient outcomes. Under fee-for-service arrangements, GPs may be less likely to delegate care to other providers, unless they too have targeted fees for the care such as with immunisations in Australia. While capitation payments may theoretically lead to over-delegation or referral, there has been no research conducted to demonstrate this.

All countries reviewed in this study have introduced incentive payments for quality. For example, in Australia the Service Incentive Payments/Service Outcome Payments reward providers for specific aspects of care for particular patients. This has been relatively effective in encouraging GPs to provide some of these services (e.g. care plans and the new team care arrangements, diabetes annual cycle of care etc). However, there have been some relative failures (such as the 3+ asthma plan and case conferencing) where these targeted payments have not overcome patient or logistic barriers. As new incentives are added, their administration arrangements are becoming increasingly complex (something that led to a major review of 'red tape' in general practice by the Commonwealth government in Australia). **There is also a risk that tasks that are not specifically funded (e.g. management of risk factors by practice nurses) may not be performed.** By contrast, the performance targets and practice level incentive payments based on enrolled populations in the UK have a greater potential for building capacity and changed work practices (including delegation of roles within the practice). The new UK General Medical Services contract is based a more holistic framework for quality performance and a broader range of indicators than is used as the basis for incentives in Australia or New Zealand, and encourages a more flexible approach to achieving quality by practices. However, this has only recently been introduced and the evidence for its impact on quality is still not available.

In Australia, Personal Medical Services, an alternative way of funding general practice, based on salaried or sessional contracts, have been demonstrated to make a significant contribution to addressing access to primary health care especially in disadvantaged and underserved communities. These have sufficient similarities to those community health services in Victoria which employ GPs, Aboriginal community controlled health services and the not-for-profit community-governed primary care organisations in New Zealand to suggest that they could be applied in Australia. All these models involve alternative GP payment mechanisms (salaries/sessional payments), capitated/global funding, the incorporation of multidisciplinary approaches, a strong community orientation and community development and intersectoral approaches to address the often complex needs of disadvantaged groups.

Despite their difference, common findings across all funding models were that:

- 1. Incentive payments are used in all countries and have been demonstrated to influence provider behaviour except where there is patient resistance or logistic barriers to their uptake. Their impact on patient outcomes is less clearly demonstrated.***
- 2. Devolution of incentive payments to the primary care organisation level may offer increased flexibility but requires increased accountability. This may be difficult without an effective system of patient enrolment.***
- 3. Capitated payments for a practice population (real or virtual) provide greater opportunities for delegation of roles within practices.***
- 4. Specific payments for specific activities may increase provider activity. Increasing the number of these can become unworkable unless they are part of an integrated framework of indicators such as developed under the new General Medical Services contract in the UK and has been proposed by the RACGP in Australia (Royal Australian College of General Practitioners).***

c) Workforce models

Changing the primary health care workforce skill-mix is receiving considerable attention internationally as a strategy for improving the effectiveness and efficiency of health care. ***However, there is a lack of evidence on their effectiveness: cost-effectiveness has generally not been evaluated, nor has the wider impact of change on health care systems.***

Important success factors for changing the workforce skill-mix are thought to include appropriate staff education and training; removal of unhelpful boundary demarcations between staff or service sectors; appropriate pay and reward systems; and good strategic planning and human resource management. ***Unintended consequences have sometimes occurred in relation to staff morale and workload; co-ordination of care; continuity of care; and cost.*** There is also an increasing focus on the role of multidisciplinary teams for the provision of quality and comprehensive primary health care and some ***evidence that such teams, integrated care and enhanced information (through improvements in computing infrastructure) can improve patient outcomes.***

Successful features of home medication review models included a multi-disciplinary approach, and where this was not an integral aspect from the beginning, difficulties were experienced with recruiting pharmacists, GPs and consumer interest. However, evidence from eight randomised controlled trials suggests that home medication reviews, involving community pharmacists, have limited effect on long term health outcomes.

Evidence does suggest that ***appropriately trained nurses*** can provide the same quality of care and achieve as good health outcomes for patients as doctors, at least in the short term. ***However, a review on the current and future role of practice nurses in heart failure management in Australia, found a lack of information evaluating their role, considerable role variation between practices and significant barriers to their role expansion.***

Research evaluating primary mental health care workforce models has found that counselling is associated with modest improvements in short-term outcomes compared to usual care from general practitioners, patients are satisfied and it may not be associated with increased costs; but counselling provides no additional advantages in the long-term. An earlier review ***did not find that adding mental health workers to primary care teams in 'replacement' models caused a significant or enduring change in provider behaviour.*** However, there is some evidence of short-term changes in the clinical behaviour of primary care providers when mental health workers work alongside them in primary care settings in a 'consultation-liaison' model. In the Australian context, a review (which pre-dated the introduction of the Access to Allied Psychology initiative) concluded that Australia is largely unprepared for collaboration between general practice and clinical psychology, and this is not helped by a lack of inter professional education.

Workforce models commonly involve a mix of substitution, delegation, enhancement or innovation, and supplementation which is a variation of the enhancement approach:

- Innovation: e.g. where primary care mental health workers are introduced as a new type of worker, to help GPs manage common mental health conditions and where community matrons are being introduced to case manage a defined population group with complex health needs.
- Supplementation: e.g. where allied health workers in Australia are providing or improving access to new or existing services to meet unmet needs, especially in rural areas, and psychologists are providing focused psychological strategies for anxiety and depression.
- Substitution/enhancement/supplementation: e.g. where practice nurses in Australia are enhancing GP access to other providers especially in areas of workforce shortage, improving affordability and quality of care and assisting integration with other services in the local area.

The United Kingdom has focussed on introducing new workers into primary health care teams for specific population groups. In Australia the focus has been on enhancing access to existing primary health care workforce, especially allied health workers through subsidising the costs of private providers; and expanding the employment of practice nurses, especially in areas of GP shortages.

Understanding what the initiatives are trying to achieve is important for assessing their effectiveness. In the Australian context, ***there is strong evidence that the introduction of incentives to enhance access to psychological services for people with anxiety and depression has been effective and some evidence of improved health outcomes.*** However, no articles were located on the impact or effectiveness of the More Allied Health Services program in achieving its aim of improving access. The Nursing in General Practice Initiative is having a positive impact on general practitioner workloads, quality of care and improving linkages with other services, with little negative cost impacts. In United Kingdom, there is less evidence that the Primary Care Mental Health Workers are achieving their aim. They are not well linked with other members of the primary care team, including GPs, half their referrals are from mental health services and they are not seeing the numbers of patients that was expected.

Despite their difference, common findings across the workforce models were that:

1. They all involved enhancing access to a broader range of primary healthcare providers, and this was more successful in Australia than in the UK, where recruitment of especially Primary Care Mental Health Workers has been slower than anticipated.

2. They all involve a focus on improving quality of care through developing new roles in existing/new professionals. Most models include clinical and practice capacity building roles; the exception being allied health provider roles in Australia where the focus is on the clinical role of (predominantly) private practice professionals.

3. There is more emphasis on defining roles than on other aspects of team work. The development of team-based approaches also requires culture change processes as well as support and education for other team members, patients and the broader community, and this aspect of change often receives little attention.

4. Both UK models involve introducing a new type of worker, whereas the Australian models are more about expanding the access to an existing workforce through increased funding, especially in areas of GP workforce shortages.

2) Department of Health and Children. (2001). "Primary Care. A New Direction. Quality and Fairness – A Health System for you." Dublin, Ireland: Government of Ireland.

A team-based approach

The importance of a team-based approach to primary care has been acknowledged by the Royal College of General Practitioners (RCGP) in the UK and the Irish College of General Practitioners (ICGP) along with the Irish Medical Organisation (IMO) in their vision document. The European Working Group on Quality in Family Practice also identified team building as one of the major targets for development in primary care. A report recently drawn up by health professionals and patients in the UK presented evidence to show that team-working provides a more responsive service to patients who benefit more when health care professionals work together. ***The importance of preserving the central role of the doctor-patient relationship in any developments in primary care has also been stressed.***

Various studies have shown that the introduction of inter-disciplinary primary care teams are associated with the ability to keep patients at home in times of crisis, reduced emergency admissions, shorter lengths of stay for patients admitted and increased patient and carer satisfaction. Key areas to be addressed to ensure that teams are effective are: access to information, clearly defined team roles, and appropriate team size.

Team members

The RCGP in the UK identified the core primary care team membership as consisting of GPs, practice nurses, community nurses, health visitors, practice managers and administrative staff. They suggested that other members might include counsellors, midwives and psychiatric nurses. Clinical psychologists, physiotherapists, occupational therapists and dieticians should also be available to provide a range of services for patients. The important role of community pharmacy in the team has been acknowledged in many countries. The team composition might vary according to the needs of the population served and the individual patient. ***As the GP is the common link in all primary care teams he or she may assume a leadership role within the group.*** However, any member of the team can lead in circumstances where his or her skills are more relevant. As primary care team members often have an incomplete understanding of the skills of other team members, possibilities

regarding shared education should be explored at undergraduate, postgraduate and practice team levels.

Skill mix

Skill mix is the use of a variety of professionals to carry out roles traditionally performed by one health care professional. It ensures that all team members are always working to their maximum professional capacity.

Many studies have concentrated on one aspect of skill mix such as the introduction of the nurse practitioner.

Patients have been shown to be satisfied with nurse practitioner consultations and the number of prescriptions issued and referrals to secondary care have been found to be similar to those that result from GP consultations. ***However, patients may prefer to continue to seek medical rather than nursing care.***

Continuity of care

Continuity of care allows health professionals to get to know patients. This has been found to be associated with time saving, reduced referrals, reduced prescriptions and improved compliance. The literature also shows that continuity of care is associated with improved recognition and management of patients' psycho-social problems. ***Most research suggests that a patient's satisfaction with a consultation is strongly associated with visiting the same doctor.*** Studies which have looked at out-of-hours care provided by GPs from the patient's own practice versus those from deputising services have found that deputising doctors were less likely to give telephone advice, took longer to visit at home and were more likely to prescribe medication. ***Patients were more satisfied with services provided by their own doctors.***

Generalist versus specialist care

The literature shows that ***generalist and specialist teams can work synergistically.*** Various studies have highlighted the potential of primary care teams working with specialist mental health services in the community. Studies have also shown that primary care providers are keen to become more involved in the care of those suffering from mental disorders and see the value of having a community psychiatric nurse working as part of the team. For stroke patients, studies have shown that early discharge with community support is as clinically effective as conventional care and is as acceptable to patients and, for patients with HIV, improved collaboration between primary care and specialist teams leads to a reduction in hospital lengths of stay. The concept of shared care means that the members of the primary care team can work with other specialist groups in the care of individual patients. ***Shared care has been successfully employed in areas such as diabetes care, asthma care, ante-natal care and palliative care.*** Important components of successful shared care include agreed objectives and locally developed written guidelines.

Gatekeeper role

GPs provide a crucial gatekeeper role to secondary care services. Studies have shown that patients value this gatekeeper role and it has also proved to be cost-effective. ***Open access to specialist clinics can lead to over-investigation and fragmentation of patient care.*** The ICGP/IMO vision document acknowledged this important gatekeeper role of the GP.

Telephone triage

Telephone triage is becoming a key point-of-entry tool for patients accessing the health system. It has been shown to be a cost-effective way of providing care which facilitates continuous access to primary care. Nurses are currently the key professionals providing this type of service. The introduction of decision support software can further improve the consistency of decisions taken by the nurses.

SUMMARY

In summary it seems that there is little evidence that any organisational, funding or workforce model can affect patient outcomes in the short or long term. We have not been able to find strong evidence in favour of a particular model of primary care; rather we have found strong evidence in favour of primary care itself, and its core characteristics. There is limited evidence on the effect of multi-disciplinary teams improving patient outcomes, but research is limited. Patients are satisfied with nurse practitioner consultations, and the performance of trained nurses has been found to approach that of a GP in a few, defined situations. However, patients may prefer to continue to seek medical rather than nursing care. As the GP is the common link in all primary care teams, he or she may naturally assume a leadership role within the group. Patients prefer to have their own GP, also for out-of-hours care. Shared care with secondary care specialists has been shown to work in various areas. The gatekeeper role of the GP is seen to be an important cost-control measure, and prevents harm due to unnecessary hospitalisation and over-investigation.

8. THE FUTURE DIRECTION OF PRIMARY CARE IN MALTA

What is the direction that the Primary Care reform will take in Malta? What proposals have been made to date?

The 1991 “Family Doctor Scheme” governed by a family doctor scheme council was deemed acceptable to the public and to the politicians, but it was not implemented due to issues with obtaining a firm political and financial commitment. The scheme envisaged an expanded role for the family doctor, placed at the head of a health care team, with new responsibilities for the public as users, and facilitation of a new long-lasting relationship between doctor and patient. The scheme also proposed new payment models (with payment of a capitation fee, items of service, emergency treatment/out of hours care, minor surgery, seniority allowance, etc.), incentives for good practice, direct support for development of group practices, employing staff, and capital expenditure for equipment and premises. Continuing medical education and training of colleagues (under and post-graduate) were also directly supported financially. The new proposals put forwards by the Ministry for Social Policy in 2008 reinforce the 1991 recommendations to have a strong primary care core for our national health care system. However, the new proposals have broader aims than the earlier Family Doctor Scheme and are possibly more ambitious, proposing to mainstream health into all sectors at a local level, to provide caring and supportive service environments, to enhance accessibility to services, to promote quality of service provision, and to safeguard sustainability. Clearly, strengthening primary care and family medicine are strong threads through the framework of this new strategy (Ministry for Social Policy, 2008, 1991).

We have been given sterling advice by various international experts who have visited Malta and who have come to know our health care system. The proceedings of the MAM National Conference on Primary Care (November 2008) have been summarised above. However, one of the main speakers, Professor Frank Dobbs of the University of Ulster, is rather familiar with Malta, since he has visited the islands many times and in fact was the invited keynote speaker at the first Primary Care Conference organised by the Department of Primary Care in 2005. At that time he recommended the following key reforms to improve primary care in Malta (Department of Primary Care, 2005):

- Registration and Records Transfer
 - Public
 - Private
- Good Records
 - Computers, TransHis, ICPC-2 codes
 - Support Staff
- Consultation Time – 8 minutes face-to-face minimum
- Outcome Payments

What are the pitfalls of primary care reform?

As the Maltese government looks ahead at revamping its primary care system, it would do well to learn the lessons from similar reforms that have taken place elsewhere. For example, pitfalls identified in the primary care reforms in Ireland included (Department of Health and Children, 2001):

- Poorly developed primary care infrastructure and capacity
- Current system fragmented from user’s perspective

- Limited opportunities for user participation in service planning and delivery
- Emphasis on diagnosis and treatment with weak capacity for prevention and rehabilitation
- Potential to reduce pressure on secondary care not fully realised
- Secondary care providing many services which are more appropriate to primary care
- Current system oriented around needs of providers rather than users
- Out-of-hours services underdeveloped
- Limited availability of many professional groups
- Professional isolation
- Limited team-working
- Communication between professionals and sectors inadequate
- Lack of quality assurance framework
- Limited information from primary care for planning, development and evaluation

What do family doctors want?

In March 2007, the Malta College of Family Doctors (MCFD) Council accepted a proposal by Professor Soler, then College Secretary for Research, to conduct a scientific survey of the perceived educational needs of Maltese Specialists in Family Medicine (SFMs), and their attitudes to various aspects of the future development of Family Medicine (FM) in Malta, both academic and professional. The project was taken up by the MCFD Research Committee, which developed and piloted a questionnaire for this purpose. The aim of this study was to gauge the educational and professional needs of College members, in order to inform College policy development. The research questions to be addressed were: (Soler et al, 2007)

1. What are the (subjective) educational needs of Maltese Specialists of Family Medicine?
2. What are the attitudes of Maltese Specialists of Family Medicine towards the current local academic activities?
3. What are the attitudes of Maltese Specialists of Family Medicine towards future academic and professional developments?

These questions may help inform us on what the attitudes of Maltese Specialists in Family Medicine (SFMs) are towards a reform of primary care? Do SFMs wish for change, and do they agree with such new developments as patient registration and information technology? (Soler et al, 2007)

A questionnaire designed to answer the research questions above was designed and piloted, then mailed to all 328 Maltese SFMs. The questionnaire covered the respondent's demographics (age, sex, type of practice, details of College membership, hours of current practice, post-graduate training), questions regarding the respondent's personal educational needs and attitudes to various planned College projects and/or professional developments which may impact on the practise of FM in future, as well as reason for non-response (if applicable). Responses were analysed using descriptive statistics and frequency tables, graphs and charts.

One hundred and fifty four responses out of the 323 (5 not being in active practice) were complete, giving an effective response rate of 47.7%. Of the 167 respondents: 24.4% were female; of mean age 48 years; 86.3% were College members, and had been College members for an average 7.4 years; 55.6% were in private practice only, 6.3% government practice only, 35.0% practised in both areas; one quarter of respondents worked between 20-39 hours a week, one quarter 40-59 hours, and one quarter 60-79 hours in the speciality; only 22.2% of respondents had successfully participated in a post-graduate course. (Soler et al, 2007)

More than 50% of respondents ranked Continued Medical Education (CME) events organised by the College highest, with 75% or more giving it 1st or 2nd preference. Respondents rated College and professional initiatives highly, with more than 50% of College members agreeing or agreeing highly with all items outlined in questions 3 through to 8a-j. The items in questions 8a (increased access to special investigations), 8h (increased Primary Health Care (PHC) investment), 8i (public campaign for PHC) and 8j (facilitating chronic disease care in PHC) had a median score of 1 (agree strongly), indicating that more than 50% of respondents agreed highly with such issues. With regard to ranking, item 8a (increasing access to investigations) was awarded the highest rank, followed by item 8j (facilitating chronic disease care), and then items 8g, h, i (improving continuity of care, investing in PHC, and having a public campaign for PHC, respectively). Issues itemised in questions 8a, g, h, I and j were thus given a rank of 5 or higher (out of 10) by more than 50% of respondents. (Soler et al, 2007)

In question 8, respondents were asked to rank 10 professional initiatives in order of importance or priority to them personally. Item 8a (increasing access to investigations, 96.7% agree or agree strongly) was awarded the highest median rank of 3. Next was item 8j (facilitating chronic disease care, 97.3%) with a median rank of 4.5. Items 8g, h, i (improving continuity of care 90.4%, investing in PHC 92.5%, and having a public campaign for PHC 93.2%, respectively) were next highest ranked, with a median rank of 5. Items 8a, g, h, I and j were thus given a rank of 5 or higher, out of 10, by more than 50% of respondents. Items 8 b, d, e, f (patient registration, 69.7%, harmonising private and public care, 89.5%, career progression in public FM, 90.8%, and instituting specialist FM clinics, 81.6% agree or agree strongly, respectively) were next, ranked jointly at 6. The item 8c (increasing access to private insurances, 89.5% agree or agree strongly) was ranked lowest as a priority by respondents, with a median rank of 7. (Soler et al, 2007)

This MCFD research project with a piloted and validated questionnaire, completed by almost 50% of SFMs, found wide-ranging support for direct involvement by the College in the future development of the speciality. ***There was strong support for CMEs and courses, developing membership status, introduction of electronic medical records, supporting research, and moving forwards with various professional initiatives, including increased access to special investigations, increased primary care investment and publicity, and facilitating chronic disease care in primary care.*** A list of popular CME topics was identified, and members expressed enthusiasm for the College to take an active leadership role in the recognition and future development of FM in Malta. (Soler et al, 2007)

What do patients perceive, and want from the new reforms?

Patients need to be consulted before any radical changes in provision of primary health care are planned. Patients need direct access to knowledge and information to decide what they would prefer.

Patients express greater satisfaction with smaller practices, (Campbell J, 1996) practices that are not involved in training, (Baker & Stratfield, 1995) and those that run registered lists. (Baker, 1996) Patients put high priority on a 24 hour service, and on having their doctor, who knows them and their family, being available when needed.

Patients seem to be valuing different characteristics to those given greatest priority by general practitioners, and this will inevitably lead to tension and unrealistic expectations.

Should we see primary care centres as one-stop shops for services that are determinants of health, including housing and some social services in addition to the current system of health care such as physiotherapy, podiatry? Since primary care is going to be increasingly the focus of services, and the gateway to them, it is essential that other services are to be found under the same roof. Only that way can a primary healthcare worker be certain that adequate social services are being provided for a very dependent patient.

It could be argued that general practitioners and other primary care workers, such as district nurses, should be orchestrating the services that enable people who are severely handicapped to stay in their own homes.

The “advocacy role” so often claimed by primary healthcare professionals needs developing if helping patients to obtain access to services is to become a major role.

As the movement of services out of hospitals continues, the role of the primary healthcare team in delivering inpatient services for less acute conditions will need to be explored.

The primary healthcare team could act as an impartial unofficial inspection team of homes for the elderly and other community based institutions, since their interest must be the patients' welfare, rather than the profit motive of the owner.

The MIPC is currently running a study of patients' attitudes to primary care. The results of this study will be appended to this report when they become available.

SUMMARY

The Ministry for Social Policy has, on two separate occasions more than a decade apart, recommended changes to the local health care system designed to put primary care at the core of the system, to develop multi-disciplinary team-working and to improve team-work with social services workers. International experts have consistently recommended a new orientation of primary care services in Malta, in line with the recent reforms (with Ireland as an exemplar case) and involving re-organisation of family doctors into group practices with multi-disciplinary teams, patient registration, improved information technology and different remuneration systems that support European levels of quality of care. The only local study of family doctors' attitudes seems to indicate widespread support of many such potential new developments, including reforms of Malta's primary health care system.

9. A MODEL FOR PRIMARY HEALTH CARE IN MALTA – EXECUTIVE SUMMARY

1. There appears to be wide support for radical reform of primary health care in Malta in line with European systems, on behalf of Government, the Health Division, the public, local family medicine professional organisations and unions, and various authoritative international experts who have been invited to various local primary care conferences
2. Such a process of reform should be informed by the body of literature that supports primary care as a core element of health care systems
3. Primary care is authoritatively defined by the United States of America's Institute of Medicine as a model of care based on first contact access, continuity of care, comprehensive care, and co-ordination of all medical care by a primary care provider (gate-keeper role)
4. The international literature provides substantial, authoritative and broadly accepted empirical evidence of the strong effects of primary care in reducing mortality and morbidity whilst containing costs, with improved patient satisfaction, across various health care systems and in various nations. Primary health care is at least as effective as secondary care in all diseases studied, with few exceptions of disease requiring highly technical care
5. Health is better in areas with more primary care doctors. People who receive care from primary care doctors are healthier (correcting for previous disease). The core characteristics of primary health care are associated with better health in populations receiving such care
6. Such evidence is supported by empirical data from local primary health care, which shows that, as in most of the developed world, 90 to 95% of all health care is provided at primary as against secondary levels. Thus, any small shift in this balance in favour of secondary care comes at a high financial and health costs, besides overload to hospitals. To prevent hospital errors and deaths, it is far more cost effective to recruit GPs than hospital specialists
7. At least two reports commissioned by the Maltese Government recommend a development of local primary health care with substantial investment of resources, and this has recently been supported by the Parliamentary Secretary for Health, Dr. Joseph Cassar
8. Key elements of reform include the setting up of patient registration with one family doctor of the patient's choice, incentives to develop practice premises and employ staff to form new group practices, incentives to provide chronic disease care, support for special services (vaccination, health promotion and screening), and to improve quality of care.
9. The development of primary health care offers an opportunity to relieve substantial load from Mater Dei hospital emergency, in-patient and out-patient services, with improved patient care and satisfaction, at reduced overall costs in the short and medium term.
10. The drive for a strong, central role for primary health care in all national health care systems, including that in Malta, is explicitly supported by the World Health Organisation in its most recent World Health Report (2008).
11. Funding may be provided through a mixed model, such as that existent in the Republic of Ireland, whose health care systems and challenges mimic our own closely. The move to patient registration and improved quality of care does not necessarily mean that Government must take on the burden of increased costs alone; in Ireland 70% of patients choose private over public care, and pay fees for service or are enrolled in a private insurance scheme. However, in Ireland as in Malta, secondary and tertiary care, and various community services are free of charge at the point of delivery.
12. Information technology is a key element in the strategy to the reform of primary health care, and ICPC-based systems have the best potential to inform care delivery (Soler et al, 2008a). Presently most primary care contacts take place with minimal real continuity of care and continuity of information.

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