Inquiry into chronic disease prevention and management in primary health care.

The Australian National Chronic Disease Strategy and national service improvement frameworks associated with the five priority conditions (asthma, cancer, diabetes, cardiovascular diseases and musculoskeletal conditions) were meant to provide a blue print for effective action at national and state levels to address the rise in chronic disease. However one of its challenges from the beginning was in translating goals of the strategy into concrete and effective actions to address the rising burden of disease and address inequities. This has been made more difficult because of the fragmentation of the Australian health system and its focus on acute problems rather than long term conditions. There is also evidence of widening inequalities not only in mortality and disease incidence but also in the risk factors for these conditions. Thus there are widening disparities between socioeconomic groups in the prevalence of obesity, diabetes and cardiovascular mortality over the past 25 years in Australia (1). These health inequities are also reflected in premature mortality, increased morbidity, increased use of curative health services and less use of preventive health services and fewer disability free life years. There are not only high personal costs of this increased burden of disease but also costs to the health system an society as a whole.

1. Examples of best practice

There are two evidence based frameworks for integrated approaches to chronic disease prevention and management in primary health care:

a. the chronic care model identifies system supports required for effective patient centred care of patients with chronic conditions - self management support, delivery system redesign for team care, decision support, information systems and electronic health records, health care organisation (including non-fee for service funding and incentives) and community resources (including engagement of non-government and religious organisations. The model was developed by Ed Wagner in Group Health in Seattle and Tom Bodenheimer in San Francisco (UCSF) (2-4). We conducted several systematic reviews of its effectiveness (5, 6) which have shown that implementation of interventions based on elements of the model (in particular self-management support and delivery system design) can improve quality and outcomes of chronic disease care. This framework was later expanded to encompass a broader understanding of the social and environmental contributions to poorer health(7).
b. The 5As framework for chronic disease prevention includes assessment of risk (including multiple risk factor assessment such as absolute cardiovascular risk assessment); advice on lifestyle change; agreement with patients on goals and targets for change in behaviour and physiological risk factors; assisting patients with evidence based interventions including coaching; arranging referral and follow up. This model was originally developed to support brief interventions for smoking and alcohol but later applied to other behavioural and physiological risk factors including overweight and obesity (8-11). We have applied it in our own research (12-14).

These have been incorporated into a number of guidelines for chronic disease prevention and management including the NHMRC Clinical guidelines for the management of overweight and obesity in children, adolescents and adults and the RACGP Guidelines for Preventive Activities in General practice (15, 16). While elements have been implemented, there are relatively few examples of comprehensive application models in Australia. A number of networks and innovations that have been established that applied all or some of these principles:

- ABCD (Audit and Best Practice for Chronic Disease) which aims to enhance health outcomes by assisting Indigenous primary health care centres to improve their systems for delivery of best practice care for chronic disease using the chronic care model (17).

- A number of Medicare Locals developed programs to facilitate preventive care in primary care across the 5As with referral to telephone lifestyle coaching (18) or group lifestyle management programs (19). They have also developed, in association with State health services, web based referral pathways for a number of conditions (for example Sydney HealthPathways – based on a program developed in New Zealand (20)).
- Improvement Foundation work focused on cardiovascular disease, diabetes and COPD sustained implementation of the quality improvement activities have not necessarily continued
- Department of Veteran's Affairs Coordinated Veterans' Care program which is a team-based program designed to increase support for veterans with one or more targeted chronic conditions or complex care needs and those who are at risk of unplanned hospitalisation. It provides funding for the role of practice nurses as care coordinators as well as supporting self-management (21).
- A number of practice based research networks (PBRN) have been established around Australia in association with University Departments of General Practice. The Fairfield health neighbourhood extends the "medical home" concept as an electronic PBRN (ePBRN) of computerised general practices that are linked to Fairfield hospital and health services through record linkage(22). This enables patients to be tracked across participating services in the neighbourhood which, along with risk stratification algorithms, allow research into integrated care with patient cohorts (e.g. Type 2 Diabetes Mellitus) .

Addressing inequities in the distribution of chronic diseases and their risk factors is particularly difficult to address. Underlying the disparities in chronic disease risk are many social and economic factors, and one promising point intervention to reduce health disparities is improving health literacy. Lack of health literacy is a key barrier not only to how people use health services but also to how they use information to reduce their risk factors and in turn prevent or self-manage chronic disease (23). Health care providers communicate less well with these patients, particularly in the domains of general clarity, explanation of a condition and explanation of processes of care (24) and incorrectly assume these patients are not interested in or desire a less active role in their health care (25). Structural and organizational barriers to more effective communication include access to general practice, time available for consultations, and competing demands on work time (25). Although patients with low health literacy are at higher risk, they are more likely to delay seeking care, are less likely to receive preventive care and have difficulty navigating between services and providers (26).

We conducted a review of the effectiveness of interventions to address health literacy for the lifestyle risk factors in primary health care (27). We found that both group and individual interventions improved health literacy and there was also evidence for the effectiveness of more intensive group programs with patients with low educational attainment. We have subsequently developed programs to support GPs and PNs to provide more effective preventive care for patients with low health literacy including screening patients for low health literacy, using strategies to enhance communication and then negotiating referral options, address barriers to attendance, connect and support patients on the referral pathway and follow up (14, 28).

While increasing health literacy is a promising approach to reducing health inequities, its focus is on individual behaviour and may not acknowledge the lack of opportunities and access to resources such as affordable food and safe environments that support healthy lifestyles (29).

Opportunity for Medicare payment system to reward and encourage best practice and quality improvement

The current Medicare payment systems are not well suited to chronic disease prevention and management requiring proactive care for patients over time. Fee for service rewards the frequency and duration of care but does not adequately reward anticipatory, long term co-ordinated care.

- Our research suggests that review of care plans and involvement of practice nurses and allied health in chronic disease care are more important in improving outcomes and preventing hospitalisation than the initial care plan (30). The funding of care plans and reviews of care plans needs to be reweighted.
- Medicare does not adequately remunerate preventive care especially that delivered by allied health or practice nurses for patients who do not yet have a chronic complex condition. Management of overweight or obesity requires more than a brief consultation with the GP or nurse to achieve and maintain adequate changes in lifestyle or weight. Current item numbers reward assessment but do not require the other "A's". We conducted a study on preventive care recalled by participants in the 45 and up study in NSW and found a disparity between the frequency of assessment and advice given(31).
- International research suggests that patient registration and capitated payment may be a better way of funding chronic disease management and prevention because it allows more multidisciplinary approach to care and proactive care over time (32). Although not cost effective, this was suggested by the results of the Diabetes Care Trial Evaluation which recommended flexible funding for registration with a health care home, payment for quality and funding for care facilitation (33).

The current fee for service model is ill suited to providing support for care of patients with long term conditions over time or in providing incentives for quality improvement. It does have the advantage of flexibility and rewarding care which can respond to patients concerns. However it does not necessarily provide access appropriate to need either to general practitioners, practice nurses or allied health providers. Funding models based on enrolled patients and their needs rather than attendances provide flexibility to develop innovative ways to deliver care including through other providers and modalities. However it is essential to ensure that enrolment is available to all and that disadvantaged patients do not fall through the cracks but rather receive care proportional to their increased need (34, 35). A one size fits all approach will widen the disparity therefore a flexible incentive/reward system is required (36).

Current thinking suggests that a strong universal health system forms the bedrock of a health system to address and reduce health inequities. For some groups what is needed is for this intervention (access to GP, care plans, allied health)to be more frequent or of greater intensity, for example, more frequent screening, increased number of visits to allied health with the aim of integrating these groups back into mainstream services. There will however be some groups who find it hard to access PHC services as they are currently organised and may need more targeted services, such as refugees, homeless people, young people in out of home care and people in poor areas with limited PHC workforce (37).

2. Opportunities for the Primary Health Networks to coordinate and support chronic disease prevention and management

The objectives of PHNs defined in their foundation documents include:-

- understanding the health care needs of their PHN communities through analysis and planning. This should include identifying those groups who have trouble accessing services, including specialist services, and the social, economic and physical environments that may be contributing to the emergence of chronic disease. They will know what services are available and help to identify and address service gaps where needed, including in rural and remote areas, while getting value for money;
- providing practice support services so that GPs, practice nurses and allied health professionals are better placed to provide care to patients subsidised through the Medicare Benefits Schedule (MBS) and Pharmaceutical Benefits Scheme (PBS), and help patients to avoid having to go to emergency departments or being admitted to hospital for conditions that can be effectively managed outside of hospitals;

- supporting general practices in attaining the highest standards in safety and quality through showcasing and disseminating research and evidence of best practice. This includes collecting and reporting data to support continuous improvement;
- assisting general practices in understanding and making meaningful use of eHealth systems, in order to streamline the flow of relevant patient information across the local health provider community
- working with other funders of services and purchasing or commissioning health and medical/clinical services for local groups most in need, including, for example, patients with complex chronic conditions or mental illness.

This provides a clear statement of their role in chronic disease management in order to prevent hospitalization. An exclusive focus on intensive interventions for patients at very high risk or attempting to shift care from hospital to community is not likely to sufficient (although both these strategies have a contribution to make). Our own research has demonstrated the importance of systematic continuity of care provided in the community by the patient's usual GP and practice nurse. A number of PHNs are seeking to develop "medical home" models which support practices to manage their practice population more effectively through patient enrolment and better information systems. PHNs are well placed to support primary health care providers to improve chronic disease management however they will require an appropriate level of local devolution of responsibilities and funding to make this a reality.

The role in PHNs in prevention is less clear from the policy documents. It will most likely be focused on preventive care provided in clinical practice. An important role of PHNs is in supporting primary health care providers to provide better evidence based care including preventive care. A number of practice facilitation models have been developed and applied in Australia which involve working with practices to improve their quality of chronic disease prevention and management (12, 38-40). These should involve working with practices to conduct and plan PDSA cycles around clinical audit and developing the role of practice nurses to support chronic disease self-management support and preventive care (41-43).

The role of PHNs in addressing inequities in chronic diseases and their risk factors is implied in their focus on most in need especially where the general systems such as those funded through Medicare fail to address needs adequately. This is most obvious in Aboriginal and Torres Strait Islander health but includes other vulnerable population groups such as homeless people, refugees and low income groups. Workforce capacity may conspire against simple solutions. For example disadvantaged local government areas may have high rates of unmet mental health needs but low availability of psychological workforce to address these. This may be confounded by low health literacy and stigma preventing identification and referral by GPs. This may require measures to simultaneously attract and retain workforce, provide financial support, and develop mental health literacy.

Six Characteristics of systems most likely to address equity have recently been identified (44) and these have clear implications for PHNs:-

Characteristic	**Role of PHN**
1. Specific focus on equity;	There is a strong and explicit commitment to improving health equity
2. Recognises different types of knowledge or ways of knowing are recognised;	PHNs use local health data, ABS data, previous reports, formal and informal consultation and discussions with the community, presentations to key stakeholders including Council, talks to identify priority gaps and issues
3. Community members are represented or community participation is explicit;	Key community organisations and consumers are represented on Groups and any working groups
4. Interactions are supported	Initiative has a very strong multidisciplinary base

across disciplines or sectors;	and work closely with local community groups, the Council, Schools to build support and sustainability
5. There is a specific referral to social, physical, political, and/or economic context; and	Long term prevention and management of chronic disease cannot be achieved by the health system working alone. The important role of the broader society in creating opportunities for health needs to be recognized and relevant and partnerships developed with Local Government, NGOs , etc.
6. There is an applied, proactive problem-solving focus.	The role of PHNs moves beyond describing gaps in services and access issues to address them

3. **Role of private health insurers**

Private Health Insurers have an important role to play in promoting the application of evidence based clinical guidelines and the adoption of best practice models of integrated care linking hospital and acute services with care in the community for their members. There are important opportunities for collaboration and learning to ensure that those that are 'insured' by the public system gain the benefits of improved integration.

4. **Role of state and territory governments**

As noted earlier the fragmentation between Commonwealth and state governments contributes to the problem rather than the solution. State governments have an important role in facilitating better integrated care between primary care and hospital and specialist services. This has been strengthened where the boundaries for the PHNs and local health networks have been the same. The collaboration between local health networks and Medicare Locals has seen the development of a number of models of integrated care including the development of "Healthpathways" for referral to specialist services.

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