Introduction to special edition: The challenge of chronic non-communicable disease and the opportunity for transforming health care through primary care based population health management

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China shares with the United States an epidemic of chronic, non-communicable disease, with rising rates of cardiovascular disease and metabolic disorders in particular. The rising prevalence of these conditions results in great human suffering, lost productivity, high utilization of medical services and associated health care costs [1]. The first section of this special edition, "The Chronic Disease Challenge for General Practitioners" highlights the extent of this problem in China. The study by Wu and Jian [2] duplicated the results of other studies showing high prevalence of hypertension, low patient awareness and lack of treatment. Strand et al. [3] found high prevalence of cardiovascular and metabolic conditions in post-menopausal women. Both of these articles noted the lack of readily available preventive and community health resources, a finding echoed in the article by Huang et al. [4] comparing primary care health in China and the United States. The consensus reached by Chinese and United States researchers is that chronic disease is rising due to fragmented services that lack a focus on preventing and improving management of chronic disease. The result is poor health and dissatisfaction by patients, increasing prevalence of chronic disease in the population, and rising health care costs [1].

These conditions led to the passage of the Affordable Care Act and the current focus on the Patient Centered Medical Home (PCMH) – a primary care, team based approach to comprehensive and coordinated prevention and disease management – in 2010 [5]. Next the Accountable Care Organization (ACO) model was implemented to reform health care payment, with a dramatic shift from fee for service payment based on volume to new shared risk and incentive based models in which payment is based on quality of care, improved outcomes, and decreased health care costs [6]. Emerging evidence clearly demonstrates that the PCMH and ACO models of care are successful in achieving the "Triple Aim" of improved patient experience of care, improved population health and decreased cost of care [7].

Section Two of this edition highlights the key approaches that have proven effective in achieving the Triple Aim. O'Donnell et al. [8] describe the success of one of the higher performing ACO's in the United States, Banner Health, in achieving both quality improvements and cost savings based on population health management. Snipes et al. [9] describe the importance of team-based, stepped-care treatment in population health. This is followed by Kushner's [10] description of this model for depressed patients in primary care. The inclusion of depression is critical given the high co-morbidity of depression and

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chronic medical disease and associated higher costs. Li et al. [11] reviews evidence for the effectiveness of the Employee Assistance Program (EAP) model of addressing health problems – in this case tobacco smoking – from the perspective of the employer. In the United States the EAP profession is increasingly coordinating care with primary care physicians. Kessler [12] describes a new assessment tool that may be used to evaluate and compare United States and China general practices on level of integrated care and to demonstrate that increased integration leads to improved outcomes.

The message of this special edition is clear. The PCMH and ACO models of team-based primary care using population health management are proving effective in achieving the triple aim. The transition from the traditional and fragmented system of care to these new models has been fraught with challenges and barriers. However as the health care reform movement matures in the United States the evidence is clear that investment in these transformative models is achieving the goal of improved health quality, outcomes and decreased cost. Many studies in China are now showing that these models are effective in the China health care system and for Chinese patients. The challenge for China's health care system is to move these small pilot programs to scale to achieve the broad impact that is being demonstrated in the United States. In essence, this is the mission of the leadership of Family Medicine and Community Health – to support the transformation of primary care practice in China and improve the health of millions of patients while simultaneously reducing the economic burden of chronic disease on the economy. This special edition is designed as a roadmap for those taking the first step on this journey.

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