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EDITORIAL

AGING FRIENDLY HEALTH SYSTEMS

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In 1848, George Day, in the introduction to his book on aging, wrote he made no apology for the text as physicians did not understand how to care for the diseases of older persons (1). In 1914, Ignatz Leo Nascher introduced the term geriatrics (2). It was Marjory Warren who introduced what was the basis of modern geriatric rehabilitation in 1935 (3). The concept that aggressive rehabilitation for persons with functional problems, could improve outcomes was solidified by Laurence Rubenstein et al (4) with their publication on the success of the Geriatric Evaluation and Management Unit for treating persons with deficits in activities of daily living.

The modern movement in geriatrics has been the recognition that specific geriatric syndromes exist, e.g., sarcopenia, frailty, anorexia of aging and cognitive dysfunction and that early intervention to manage these "modern giants of geriatrics" can delay the aging process and enhance quality of life in older persons (5). This has led to the need to develop personalized medicine for older persons which focuses on developing individualized secondary prevention to prevent functional deterioration (6).

It is now recognized that there is a major shortage of geriatricians to deal with the "Aging Tsunami" (7). This means that the future of high quality care for older persons will require an increased knowledge and focus of primary health professionals. Geriatrics as developed has required an intensive prolonged interface between health professionals and the older person. The primary care physician has 15 minutes or less to interact with the patient. The solution to this problem is to create rapid geriatric screens followed by algorithmic diagnostic and treatment protocols as we have at Saint Louis University (8). These management protocols need to have solid interprofessional support. This approach is the cornerstone of age friendly primary care health systems.

The World Health Organization (WHO) in 2002 was the first to recognize the need to increase responsiveness to older persons problems and enhance primary care interprofessional responses and education to create age-friendly primary care centers (9). This health system is part of the WHO's development of age friendly communities throughout the world to improve the integration of older persons into communities (10). Dementia Friendly communities are a subject of age-friendly communities focusing on the specific needs and inclusion of persons with dementia in the community (11).

The John A. Hartford Foundation has made a concerted effort to enhance hospital care (12, 13). They have developed a 4M approach as the framework of an age-friendly health system:

- M – what matters – making the care plan patient orientated
- Medication – reduce polypharmacy and avoid age unfriendly drugs
- Mentation – recognize and treat delirium, depression and dementia
- Mobility – Focus on safe, fall-free walking

In Costa Rica, a geriatric hospital has been developed to provide country wide care for older persons who need specialized geriatric care (14). In Toulouse a day hospital system has been developed for nursing home residents to allow them not to be hospitalized (15).

In Perry County, Missouri, our GWEP program has developed an intensive age-friendly health system including screening for geriatric syndromes with the Rapid Geriatric Assessment as part of the annual Medicare Wellness Visit, Cognitive Stimulation Therapy for persons with dementia (16-18), exercise therapy for those with sarcopenia or frequent falls (19), Circle of Friends for lonely people (20), and home visits for persons diagnosed with dementia.

Utilizing the components of the Rapid Geriatric Assessment are an important part of early recognition of geriatric syndromes is an important component of age-friendly health systems to allow secondary prevention. These have been well validated in multiple continents. The FRAIL predicts disability, mortality and gait abnormalities (21-24). Other suitable rapid tests for recognizing frailty are the Edmonton Frail Scale (25, 26) and Rockwood's Clinical Frailty Scale (27). The SARC-F for sarcopenia has been recommended for screening by the International Clinical Practice guidelines for Sarcopenia (28). It is possible that the SARC-F can be improved by adding to it a measurement of calf circumference (29, 30) and removing falls from it may work as well (31). The Simplified Nutritional Appetite Scale (SNAQ) is highly predictive of anorexia of aging and future weight low (32-35). The Mini Nutritional Assessment (short form) can be used instead of the SNAQ (36-39). The Rapid Cognitive Screen or the Mini-Cog can be used to recognize cognitive dysfunction (40, 41).

For nursing homes development of activity programs that enhance function (42) or those that reduce hospitalization (43) are other forms of age friendly health systems.

Age-friendly hospital systems including Acute Care for the Elderly (ACE) units (44), exercise groups (45), Delirium

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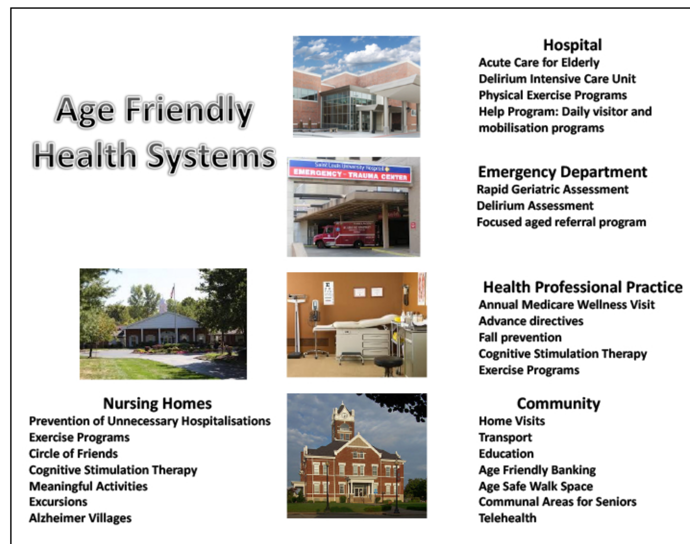
Intensive Care Unit (46) and the Help Program (47). There has also been an increase in developing age friendly emergency departments (48).

Overall, this editorial calls for the need to recognize that all health systems need to become age friendly at every level and this needs to be integrated into age friendly communities. Figure 1 gives an overview of the multiple systems that need to be put into place. Given the epidemiological aging imperative, it is essential that all health systems undergo an age-friendly transformation.

In summary, an age friendly health care system is one that focuses on:

- Quality of life for persons as they age
- Recognition of geriatric syndromes to allow targeted interventions can be initiated
- Enhancing functional ability and maintenance of activities of daily living through interdisciplinary care
- Reducing hospitalization readmissions through successfully transitions of care
- Maintaining healthy caregivers and caregiver support
- Developing a patient centered plan that takes into account life expectancy and comorbidities when treating complex medical problems and geriatric syndromes while addressing primary and secondary preventive measures.

Figure 1
Examples of Age Friendly Health Systems



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