A Framework for Evidence-Based Geriatric Prevention in Israel

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Israel's geriatric population is growing dramatically. As of 2001 there were 630,900 senior (65+) citizens, comprising 10% of the general population [1]. By 2020, with the further aging of the Israeli population, this percentage is projected to rise in relative terms to 12% of the total population, involving an absolute increase of 395,100 [2]. Given this growth, and the fact that healthcare utilization increases with age, we can expect an overall rise in such utilization.

Although many believe that society will inevitably pay the price of this "gray tidal wave," this need not be so. Evidence shows that senior citizens can hope for continued independence and a reasonable quality of life for an appreciable proportion of their retirement years [3]. Realizing this goal requires, among other things, that seniors adopt and comply with a sometimes daunting array of recommendations. These include: early and continued personal attention to a healthy lifestyle (e.g., engaging in 30 minutes of physical activity per day on most days of the week) [4], long-term avoidance of environmental hazards (e.g., reduction of fall-inducing home hazards) [5], and dedication to periodic preventive medical screening and, when necessary, medical care [6].

Some elders may possess the combination of self-discipline, patience, and persistence necessary to implement these recommendations on a long-term basis, but clinical experience and the literature indicate that many do not. Barriers to health promotion and disease prevention exist on a personal level (for example, lack of knowledge, low outcome expectancies [7], and inadequate self-efficacy [8]), at the provider level (e.g., lack of counseling skills [9]), at the organizational level (e.g., insufficient time allotted to address clinical preventive topics [10]), and at the national level (e.g., absence of coverage for prevention in a national medical insurance system, such as occurs, for example, in Israel [11]). Overcoming these barriers requires a multifaceted approach that facilitates and enables prevention at all these levels.

Methods

In September 1999, the Israel National Geriatrics Council, an advisory professional organ of the Ministry of Health, appointed a select committee to submit strategic recommendations to improve preventive geriatric care in Israel (see the Appendix for a listing of the committee members). The committee included experts in preventive medicine, geriatrics, family medicine, health promotion, nursing, biostatistics, nutrition, and physiotherapy. The Ministry of Health, the four national health maintenance organizations, and ESHEL – the Association for the Planning and Development of Services for the Aged in Israel (a non-governmental organization oriented toward working with various government agencies), were represented.

The committee approached the task in a step-wise fashion. Initially, 10 year objectives were formulated. These were based on international recommendations and were tempered by specific Israeli epidemiologic considerations. Existing international target levels were adopted in those cases where they were specified and if the committee felt they could be achieved in the coming decade. Otherwise, the committee agreed upon Israel-specific target levels.

The next step was the generation of an action plan via the drafting of clinical preventive guidelines. These were derived from the aforementioned 10 year objectives as well as from existing evidence-based guidelines, such as those developed by the U.S. Preventive Services Task Force [12] and the Canadian Task Force on Preventive Health Care [13]. The committee reviewed key articles and reports in the international and Israeli preventive geriatric literature. A consensus method was used to reach decisions. Outside experts were invited to submit their recommendations on topics requiring further clarification.

The full report of the committee was presented to the INGC in January 2001, which ratified its recommendations and then charged the committee with the task of providing a prioritized implementation-oriented executive report for the purpose of briefing the Ministry of Health senior executive forum. To further operationalize these recommendations, the committee was asked to cost out and prioritize them. This report offers a synthesis of the aforementioned efforts, with the exception of the body of the guidelines and the cost-effectiveness/cost-benefit analysis. An extensive article focusing on an updated version of the guidelines is currently being prepared for publication.

INGC = Israel National Geriatrics Council

Findings

2010 Objectives

For over 20 years, the World Health Organization and relevant bodies in various countries throughout the world have developed and directed preventive, therapeutic and research efforts by means of setting 10 year goals, objectives and targets. These metrics have served both to focus and prioritize allocation of research and implementation project funding in the health arena. The committee decided to follow these examples and promulgate 10 year preventive goals and objectives predicated upon the functional and clinical preventive health status of Israel's geriatric population.

Geriatric-relevant objectives of the WHO European Region HEALTH21 [14] and the U.S. Department of Health and Human Services' Healthy People 2010 [15] were reviewed and searched for prevention-related topics. Seven recommendations were adopted from HEALTH21 and 14 from Healthy People 2010. Two new objectives were added to the above, bringing the total to 23 [Table 1].

Table 1. Year 2010 Health Objectives and Target Levels

Objective	Source	Target level
General objectives		
Increase life-expectancy and disability-free life expectancy at age 65.	HEALTH21	Increase by 10%*.
Increase the proportion of people at age 80 enjoying a level of health in a home environment that permits them to maintain autonomy, self-esteem, and their place in society.	HEALTH 21	Increase by 25%*
Ensure that health professionals have acquired appropriate knowledge, attitudes, and skills to protect and promote health.	HEALTH 21	90% of all professionals
Primary prevention		
Increase the proportion of adults who are at a healthy weight.	Healthy People 2010	60%**
Increase the proportion of adults who meet dietary recommendations for calcium.	Healthy People 2010***	75%**
Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day.	Healthy People 2010	30%**
Increase the proportion of adults engaging in physical activities that enhance and maintain muscular strength and flexibility.	Healthy People 2010***	30%
Increase the proportion of non-institutionalized adults who are vaccinated annually against influenza.	Healthy People 2010	90%**
Increase the proportion of non-institutionalized adults ever vaccinated against pneumococcal disease.	Healthy People 2010	90%**
Reduce mortality and disability from road traffic accidents.	HEALTH 21	15% reduction*
Reduce the incidence of hip fractures.	Healthy People 2010***	Women: 40% reduction Men: 20% reduction**
Prevent diabetes.	Healthy People 2010	Reduce incidence by 25%
Reduce the proportion of adults with high blood pressure.	Healthy People 2010	Reduce prevalence by 25%
Increase the proportion of physicians and dentists who counsel their at-risk patients about tobacco use cessation, physical activity, and cancer screening.	Healthy People 2010	85%*
Secondary prevention		
Increase the proportion of adults aged 75 and older undergoing yearly screening of their visual acuity.	New	30%
Increase the proportion of adults undergoing yearly screening of their hearing.	New	30%
Increase the proportion of women between the ages 50 and 74 who have received a mammogram within the preceding 2 years.	Healthy People 2010***	70%**
Increase the proportion of adults aged 50 and older who have received a fecal occult blood test (FOBT) within the preceding 2 years.	Healthy People 2010***	30%
Tertiary prevention		
Increase the proportion of adults with high blood pressure whose blood pressure is under control.	Healthy People 2010***	50%**
Increase the proportion of adults with diabetes who have a glycosylated hemoglobin measurement at least once a year.	Healthy People 2010	50%**
System-wide quality improvement		
Create a nationwide mechanism for continuous monitoring and development of the quality of care for at least 10 major health conditions, including measurement of health impact, cost-effectiveness, and patient satisfaction.	HEALTH21***	Full implementation
Assure evidence-based research policies oriented toward the priorities of long-term policies designed to advance the health of the nation.	HEALTH21***	Full implementation
Provide useful and easily accessible health information to decision makers, health professionals, as well as to the general public.	HEALTH21***	Full implementation

* Indicates adoption of scaled-down international target levels (i.e., half the target level in half the alotted time period).
** Indicates adoption of existing international target levels or equivalents.
*** Indicates a paraphrasing of the objectives.
Note: The term "adults" used in Table 1 refers to those aged 65 and older, except where explicitly stated otherwise. Target levels in Table 1 refer to the *proportion* of the population covered by the intervention, except where explicitly stated otherwise.

Clinical preventive guidelines

In order to implement the 2010 objectives, concrete clinical preventive guidelines for physician-nurse teams were formulated on the basis of the Level A and B strength recommendations of both the second U.S. Preventive Services Task Force [12] and the then current recommendations of the Canadian Task Force on Preventive Health Care [13]. These guidelines have been periodically revisited and updated as the North American Task Forces have updated and issued new recommendations.

Implementation

In order to facilitate clinical guideline implementation, we are presently working on a series of implementation tools. These include an implementation guide adapted from the USDHHS Put Prevention into Practice Program [16], a senior health passport modeled after the USDHHS *Staying Healthy at 50+* booklet [17], an internet prevention guide on the Ministry of Health site advising the senior public about recommended preventive procedures [18], incentive schemes for the HMOs to encourage adoption of preventive measures, and a national primary care evaluation plan [19]. Longer term infrastructural recommendations have also been proposed. These include adequate training of healthcare providers in preventive geriatrics, development of an appropriate prevention research base, and adoption of appropriately designed community-based preventive interventions for the elderly.

Discussion

This paper presents a framework for dealing with the preventive healthcare needs of Israel's elderly. Building upon existing international sources: the USPSTF [12], CTFPHE [13], and local guidelines [6], we offer 10 year health objectives for the elderly, and describe the development of derivative clinical preventive guidelines and tailored implementation strategies.

Several questions are appropriate regarding this ambitious project. Are internationally framed objectives appropriate for Israel? Is this program achievable? If so, why hasn't it already been instituted? What major obstacles remain in the way of implementation and how may they be overcome? Is there political will to see this process to completion?

Both epidemiologic and health services research, as well as policy norms exist to support the appropriateness of adapting international objectives and guidelines to Israel. Israel has many attributes of first-world countries in terms of its vital statistics [1], the demographic structure and education of its population overall, and the level of its health professionals, all of which are on par with most western countries. An argument supporting adoption of appropriately modified North American preventive care goals and guidelines can be made on these grounds. In addition, existing Israeli preventive care guidelines [6] have adopted the evidence-based approach of groups such as the USPSTF [12]. As for the World Health Organization's HEALTH21 objectives [14], it is clear they have been framed to address international senior healthcare needs, including those of Israel.

Ten year health goals have been the subject of discussion and even a professional report to the Ministry of Health [20] in past years. The adoption in 1995 of the National Health Insurance Law, and the ensuing focus on government-HMO priorities and responsibilities have paved the way for a broader perspective. Current leadership in the Ministry has been supportive of broad-scope efforts such as those detailed in this paper.

Current international, and particularly U.S. and Canadian efforts to develop evidence-based preventive guidelines have gained credence in Israel over the past decade. This fact is reflected in the publishing of the first Israeli report of preventive guidelines in 1996 [21], the updated second edition in 2000 [6], and a third edition to be published this year. These guidelines have been disseminated to HMO clinics, but lack specific implementation tools, provider and organizational incentives, and a developed preventive service quality assurance system to monitor provider performance. The current effort attempts to address these needs.

Several key questions remain. Will HMO leadership buy into these initiatives? Can an agreement on appropriate incentivization be concluded? Will the incentives increase compliance among busy providers? Can the Ministry of Health and HMOs build the databases necessary for an effective ambulatory quality assurance system? Can this potentially threatening system be gradually and relatively painlessly implemented in the highly competitive Israeli medical system? These questions are compounded by the nascent nature of the senior consumer rights movement in Israel. No doubt these questions and unforeseen others will tax the wherewithal and the creativity of all involved. It is incumbent upon this generation of researchers, clinicians and leaders to envision, develop and provide the preventive care necessary to assure quality of life for those whose shoulders have provided us with many a critical vantage point over the course of our lives.

USDHHS = U.S. Department of Health and Human Services
HMO = health maintenance organization
USPSTF = U.S. Preventive Services Task Force
CTFPHC = Canadian Task Force on Preventive Health Care

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Appendix

Israel Ministry of Health National Geriatrics Council
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National Geriatric Council Committee for Health Promotion and Disease Prevention in Older Adults
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Members: Yosefa Ben-Moshe MPH, Joseph Bregman MD, A. Mark Clarfield MD FCFP FRCPC, Josepha Danziger MA, A. Michael Davies MD, Gary Ginsberg PhD, Adir Gluckman MD, Yosefa Kachal RD MPH, John Lemberger MA MMHS, Alex Leventhal MD MPH MPA, Sara Levi PhD, Eran Matz MD MHA, Hanna Peleg BA, Michael Rosenbluth MD, Annarosa Anat Shemesh MA MPH