




Available online at

 www.sciencedirect.com

Elsevier Masson France

 www.em-consulte.com



Hot topic in geriatric medicine

Vaccination and healthy ageing: How to make life-course vaccination a successful public health strategy

J.-P. Michel^{a,*}, M. Gusmano^{b,1}, P.R. Blank^{c,2}, I. Philp^{d,3}

^a Department of Rehabilitation and Geriatrics, Geneva University Hospitals, 3, chemin Pont-Bochet, 1226 Thônex, Geneva, Switzerland

^b The Hastings Center, 21, Malcolm Gordon Road, Garrison NY 10524-4125, USA

^c Institute of Social and Preventive Medicine, Medical Economics, University of Zurich, Hirschengraben 84, 8001 Zurich, Switzerland

^d Health Sciences Research Institute, Warwick Medical School, Coventry CV4 7AL, UK

ARTICLE INFO

Article history:

Received 1 February 2010

Accepted 29 March 2010

Available online 12 June 2010

Keywords:

Adult
 Age distribution
 Communicable diseases
 Healthy ageing
 Immunisation
 Public health policy
 Vaccination

ABSTRACT

Vaccine guidelines that advocate immunisation in adults aged ≥ 60 years and an international policy brief that explores the importance of life-course vaccination have been proposed. The guidelines, policy brief and associated data were considered by experts at two meetings during 2009. This paper amalgamates those discussions and recommends practical strategies that may contribute to the successful implementation of adult vaccination. The challenges posed by changes in the global age distribution may be confronted by preparing for healthy ageing early in life – a ‘life-course’ approach to health. Vaccination can provide cost-effective protection against a host of diseases throughout life, but remains an underused public-health strategy in adults for the promotion of healthy ageing. Without specific vaccination programmes for the adult population aged ≥ 50 years (‘50+ vaccine programmes’) infectious diseases will continue to be a cause of substantial morbidity and mortality in late adulthood. The reasons for low vaccination rates among adults (‘what we know’) are identified and the four common determinants for the successful implementation of 50+ vaccination programmes (‘what we should do’) are examined: vaccination programme objectives, the role of healthcare professionals, access to vaccines, and public awareness. To achieve the goal of healthy ageing, nationally customised measures should be instigated to address these determinants in the 50+ age group and to ensure access to vaccination for those who are expected to benefit.

© 2010 Elsevier Masson SAS and European Union Geriatric Medicine Society. All rights reserved.

1. Introduction

A Joint Working Group of the European Union of Geriatric Medicine Society (EUGMS) and the International Association of Geriatrics and Gerontology–European Region (IAGG-ER) recently proposed vaccine guidelines and a consensus statement that advocated immunisation in adults aged ≥ 60 years [1,2]. These are complemented by a policy brief from the International Longevity Center [3] that examines the impact of life-course vaccination on an ageing population, and outlines strategies for improving vaccination rates in Europe.

The guidelines, policy brief and associated data were discussed by experts at two meetings held during 2009 that examined

healthy ageing and life-course vaccination [4,5]. This paper contribution amalgamates the discussions at those meetings, with the aims of raising awareness of the value of life-course vaccination policies within the concept of healthy ageing and of identifying the key determinants for the successful implementation of vaccination programmes in late adulthood. The main focus is to complement existing published information and to provide practical examples of ways in which vaccination rates in older adults may be improved. We review the *rationale* for life-course vaccination within the context of healthy ageing and analyse our current understanding of the barriers to vaccination in late adulthood (‘what we know’) before examining ‘what we should do’ to improve vaccination rates.

2. Trends in age distribution

Globally, the distribution of the population by age is changing significantly. Historically, populations have contained more young than old people—a pyramid-shaped age distribution. In the near future, starting with the more ‘developed’ countries, the distribution will become an inverted pyramid, with more old than young

* Corresponding author. Tel.: +41 22 305 6500; fax: +41 22 305 6125.

E-mail addresses: jean-pierre.michel@hcuge.ch (J.-P. Michel), gusmanom@thehastingscenter.org (M. Gusmano), patricia.blank@ifspm.uzh.ch (P.R. Blank), i.philp@sheffield.ac.uk (I. Philp).

¹ Tel.: +1 845 424 4040/200.

² Tel.: +41 44 634 4681; fax: +41 44 634 4708.

³ Tel.: +44 114 2715915.

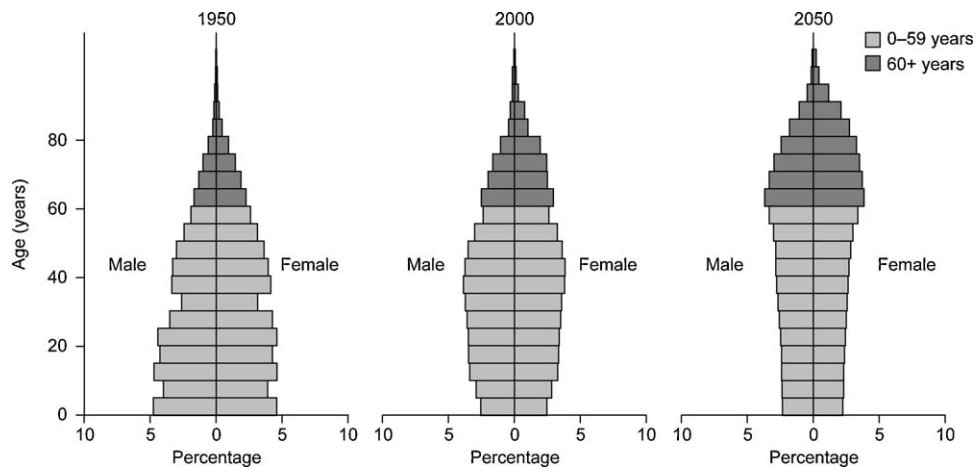


Fig. 1. European population distribution by age.

people [6]. The proportion of adults aged > 60 years is expected to increase from 10% in 2002 to 21% in 2050 [6]. In Europe, in same time period, the increase in the size of the population aged > 60 years is predicted to reach 160% [7]. Similar demographic trends are being observed in 'developing nations' (Fig. 1).

Despite promotion by governments and health providers of healthy lifestyles and preventive medicine throughout life, the long-term maintenance of good health as people age ('healthy ageing') is subject to several confounding factors. In particular, the onset of chronic conditions and age-related physiological changes increases the risk of infection and disease, and potentially increases the financial burden on healthcare systems. The challenges posed by these changes in age distribution may be offset by the promotion of healthy lifestyles and appropriate preventive action, for example, by preparing for healthy ageing early in life – a 'life-course' approach.

3. What is 'healthy ageing'?

Healthy ageing is a concept devised by the World Health Organisation (WHO) that promotes opportunities for optimising physical, social and mental health to enable people of all ages to enjoy a healthy, safe and independent lifestyle, and to take an active part in society [8]. The principles of healthy ageing recognise people's rights to equality of treatment as they grow older. It recognises that factors beyond health and social care can have a major effect on health and well-being. It also acknowledges the changes in expectations between generations regarding health and activity as people age. It is never too late to begin health-promotion interventions that can extend both the length and quality of life. However, there is a growing interest in a life-course approach to health that recognises the impact that early life experiences have on the way in which people age.

4. The importance of a life-course approach to health

The life-course approach to health considers healthcare to be an ongoing process of disease prevention and health promotion. It recognises that a complex interplay of factors (biological, behavioural, psychological, social, and environmental) contribute to health outcomes across the course of life [9–13]. A life-course approach to healthcare encompasses an integrated approach to health and, to be successful, requires significant investments in health promotion and disease prevention, as well as support services and information systems.

Prevention of illness is acknowledged as a critical means of limiting the impact of disease and illness as people get older. Four of the most prominent non-communicable diseases (cardiovascular disease, cancer, chronic obstructive pulmonary disease, and diabetes) are linked by common risk factors related to lifestyle. These include poor diet and nutrition, tobacco use, alcohol consumption, and physical inactivity. The incidence of these diseases can be reduced through health promotion. By contrast, communicable diseases and some other serious conditions can be reduced or prevented using immunisation programmes that are practical and easy to implement. Vaccination is an effective preventive public health strategy that will become a keystone in life-course healthcare. A life-course approach to vaccination will provide a major contribution to healthy ageing through a reduction in the burden and potential suffering caused by vaccine-preventable diseases, benefiting individuals and society.

Ageing is not just related to changes after middle age. It is now known that the process of ageing starts early in life, and after 30 years of age, physiological functions decline at a rate of 0.5–1.3%, annually [14]. As maintenance and repair processes fail, damage accumulates, leading to physiological impairment of tissues and organs. In particular, age-related immunological decline ('immunosenescence') is believed to be a key reason why older people suffer more frequently than younger people from severe infections, with greater disease severity and poorer outcomes [15–17]. Infections of the lower respiratory tract (pneumonia and influenza) are a leading cause of death in late adulthood [18].

The high burden of infectious diseases in late adulthood is surprising considering that many of the diseases can be prevented by vaccination (Table 1) [19]. Globally, vaccination has had a major impact on world health, reducing the childhood incidence of many life-threatening or debilitating infectious diseases in high- and low-income countries [20]. Unfortunately, with the exception of the seasonal influenza vaccine, many adults believe that vaccination is relevant only for children, and awareness of adult vaccines is low [21]. Also, scientific, cultural, temporal, and secular issues affect the development and delivery of vaccines [22]. In the USA, far more adults than children die from vaccine-preventable diseases each year [23]. The reduction in immunity over time, combined with unwillingness by older people to have booster injections, leads to an increased risk of diseases such as diphtheria [24,25] and pertussis [26] in late adulthood. The incidence of tetanus also increases with age, and it continues to be an active disease in adults aged > 50 years throughout Europe [24], particularly in Turkey, the Federation of Russia and in Poland. In the USA, immunity rates to tetanus are lowest among the elderly

Download English Version:

<https://daneshyari.com/en/article/3324978>

Download Persian Version:

<https://daneshyari.com/article/3324978>

[Daneshyari.com](https://daneshyari.com)