



Influenza vaccination in Austria from 1982 to 2011: A country resistant to influenza prevention and control



Ursula Kunze*, Gabriela Böhm, Ernest Groman

Institute of Social Medicine, Center for Public Health, Medical University of Vienna, Kinderspitalgasse 15, A-1090 Vienna, Austria

ARTICLE INFO

Article history:

Received 5 December 2012
Received in revised form 13 August 2013
Accepted 21 August 2013
Available online 5 September 2013

Keywords:

Influenza
Vaccination
Vaccine use
Austria

ABSTRACT

Background: Austria's position on influenza vaccination is unique. Generally it is recommended for everyone, and specifically for those over the age of 50 years and all children between 6 months and 5 years. However, the vaccination rate among the general public is one of the lowest in the world (<10%). Our objective was to provide baseline information to allow a better understanding of the low vaccination rate.

Methods: This paper presents data on influenza vaccine use in Austria during a period of almost 30 years, from 1982 to 2011. Data presented in this study were obtained from three sources.

Results: Between 1982 and 1992, Austria showed little change in its low proportion of vaccinations (from 20 to 23 doses/1000); from 1992 to 1995, the proportion increased to 52 doses/1000, retaining its status as one of the low-use countries. By 2003, the proportion had increased to 127 doses/1000, but Austria remained one of the three lowest-use Western European countries. Between 2007 and 2011/2012, a steady decrease to 81 doses/1000 was observed.

Conclusion: The Austrian population, and parts of the medical system, have shown distinct ignorance regarding the prevention and control of influenza over past decades. Possible reasons for this development are discussed.

© 2013 Elsevier Ltd. All rights reserved.

1. Introduction

Influenza continues to be an important cause of preventable morbidity and mortality, with only a few other diseases resulting in such a huge scale of suffering and economic loss. Annual influenza epidemics are estimated to be responsible for 3–5 million severe cases and 250,000–500,000 deaths worldwide [1–3]. About 38,500 deaths were calculated annually in the European Union (EU) population of about 500 million, with considerable seasonal variation [4]. In the Austrian population of about 8 million, 350,000–400,000 cases of influenza appear during an average epidemic. Because of the poor surveillance system, the numbers estimated are probably inaccurate. However, a recent study calculated 1000–1200 annual influenza-related deaths during the 2001–2009 influenza seasons (average of 15.5 deaths/100,000 people) [5]. These numbers are much lower than those previously published (up to 6000 deaths per season). However, one must keep in mind that the majority of these deaths are avoidable and that the lower numbers should not lead to the conclusion that there is no major problem regarding prevention and control of influenza in Austria [6].

As in many European countries, population-based Austrian studies of influenza vaccination coverage do not exist. Austria's current vaccination rate of less than 10% for the 2011/2012 season (based on vaccine doses sold in the 2011/2012 season) is one of the lowest in the world.

The present paper provides an update on the first publication of influenza vaccination use in Austria from 1982 to 2003 [7] by reporting Austria's influenza vaccine use during the period 1982–2011.

1.1. Vaccination recommendations in Austria

Most developed and rapidly developing countries have national recommendations to vaccinate elderly people and those with high-risk conditions. Austria has been among the countries with the best influenza vaccination recommendations worldwide for many years [8]. The general influenza vaccination recommendation for everyone was established in 2002 (it was not established in the US until 2010), and Austria and Ireland are the sole countries in Europe with national recommendations for all people over the age of 50 [9]. In Europe only Estonia, Slovakia, and Austria recommend vaccination for all children over the age of 6 months.

Despite these superior recommendations, the appropriate implementation has failed; Austria has one of the lowest

* Corresponding author. Tel.: +43 40160 34890; fax: +43 40160 9646.
E-mail address: ursula.kunze@medunwien.ac.at (U. Kunze).

vaccination rates in the world. Most European countries achieve much higher vaccination rates in the general public; the UK and Germany had vaccination rates of approximately 30%, and Italy and France had rates of approximately 25% in 2007/2008 [10].

The World Health Organization (WHO) and the European Commission have set a target of 75% of people aged over 65 receiving vaccination against influenza by the 2014/2015 season [11,12]. Austria will clearly fail to achieve that aim; its 2007/2008 vaccination rate of 37%, together with those of the Czech Republic (approx. 20%) and Poland (14%), is among the lowest in the highly affected age group of over 65 [10]. Countries close to the target in 2007/2008 include the UK (approx. 70%), Spain and France (approx. 65%), Ireland (approx. 60%) and Italy (approx. 55%) [10].

2. Methods

Despite the international consensus on the need to increase vaccination rates [11,12], worldwide data have not been available to help public health authorities monitor vaccine uptake, review progress towards these targets, or to assess the impact of immunization policies [13]. The Austrian data presented in this study were recorded from three different sources.

- 1) In the early 1990s, independent investigators began to gather information on the comparative use of influenza vaccines in developed countries by calculating the annual number of doses of influenza vaccines distributed (excluding doses returned to the manufacturer). Annual estimates of the total resident population and the population in each country were obtained from the Office of Epidemiological and Statistical Methodology, WHO, Geneva, Switzerland. In 1996, the European Scientific Working Group on Influenza (ESWI) took over the project. The work of these groups led to four publications [14–17], which have provided a foundation for understanding the macro-epidemiology of influenza vaccination throughout the world. Data from this source cover the years from 1980 to 2003 in three study periods: 1980–1992, 1992–1995, and 1996–2003.
- 2) However, no formal mechanism has been established to supply continuous information on a regional or worldwide basis (although some countries observe vaccine usage locally) [13]. Therefore, the International Federation of Pharmaceutical Manufacturers and Associations Influenza Vaccine Supply Task Force (IFPMA IVS) developed a survey methodology to assess influenza vaccine provision globally [18]. In 2010, the IFPMA IVS updated and extended this database, which now offers policymakers a unique resource for information about the seasonal influenza vaccine distribution in 157 countries, including Austria, for the 6-year study period from 2004 to 2009 [13].
- 3) Additional data covering the years from 2005 to 2011 were obtained by calculating the number of actually distributed doses of influenza vaccine in the Austrian market only. The manufacturers that sold influenza vaccines in the Austrian market provided the numbers. All data regarding vaccine use throughout the manuscript are represented as dose distribution per 1000 head of population ($n/1000$).

3. Results

3.1. Study period 1982–1992

In 1980, when research work started on influenza vaccination in 18 developed countries, including Austria, the influenza vaccine was widely regarded as under-used. During this first study period, the annual rates for vaccine distribution increased in most of the 18 countries [14]. In contrast, Austria showed little change, from

Table 1

Annual number of doses of influenza vaccine distributed in Austria, $n/1000$ total population, 1982–2011.

	Year	Doses
Study period ^a 1980–1992 [14]	1982–1991	~20
	1992	23
Study period ^b 1993–1995 [15]	1993	40
	1994	45
	1995	54
Study period 1997–2003 [16,17]	1997	77
	1998	85
	1999	107
	2000	118
	2001	121
	2002	106
	2003	127
Study period ^c 2005–2011	2005	138
	2006	142
	2007	129
	2008	113
	2009	117
	2010	87
	2011	81

^a 1980, 1981, no data available.

^b 1996, no data available.

^c 2004, no data available.

20 doses/1000 in 1982 to 23 doses/1000 in 1992 (data for the early years of 1980/1981 were not available). Table 1 shows the Austrian data from 1980 to 2011.

The influenza vaccination was recommended for persons with high-risk medical conditions, all persons >65 years, and health-care workers. Self-funding was generally required; some private health insurers covered the costs, but there was no national or social health insurance coverage.

3.2. Study period 1992–1995

The distributed doses in Austria increased from 23 doses/1000 in 1992 to about 54 doses/1000 in 1995. Thus, Austria was one of the low-use countries, together with Sweden, Denmark, Switzerland, and New Zealand. In comparison, Spain was a high-use country with 160 doses/1000 [15].

Recommendations for influenza vaccination and reimbursement policies for the vaccination of recommended groups did not change during this period. Austria was still among the countries with no reimbursement under national or social health insurance schemes.

3.3. Study period 1996–2003

The use of the influenza vaccine continued to increase slightly from earlier levels with 77 doses/1000 in 1996 and 1997. In 2000, the number of doses distributed increased to 118/1000, but still trailed behind Spain (178) and The Netherlands (197). Until 2003, when the rate increased to 127 doses/1000, the rate in Austria remained among the bottom three of the Western European countries reported, together with Sweden (also 127) and Norway (102). Vaccination was recommended for all persons 60 years and over, but there was still no influenza vaccination recommendation for HIV-infected persons, children on long-term aspirin or pregnant women.

3.4. Study period 2004–2011

Our own calculations (as described in point 3 of Section 2) identified a further slight increase in vaccinations with 138/1000 doses

Download English Version:

<https://daneshyari.com/en/article/10966032>

Download Persian Version:

<https://daneshyari.com/article/10966032>

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