Barriers to adult immunization and solutions: Personalized approaches

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ABSTRACT
Immunization is an important component of preventive healthcare services aiming to prevent and eventually eradicate infectious diseases by immunizing people before they become infected. Although immunization is an integral part of children’s healthcare, this fact is underrated, even ignored in adults. In Turkey, adult immunization is available only for certain high risk groups such as health care professionals and populations aged > 65 y and under certain conditions including pregnancy, military service, travel, pilgrimage, and employment procedures. The fact that diseases such as pneumococcal pneumonia, influenza, rubella, varicella, hepatitis A, and tetanus, which could be associated with severe complications in adults, are vaccine-preventable indicates the importance of adult immunization. In addition to the healthcare providers’ knowledge about immunization, effective policies of related professional associations and the management of this issue by regulatory authorities, people’s awareness in protecting their own health is of utmost importance in achieving the targeted level of adult immunization. This article focuses on the characteristics of the individuals as one of the 3 main cornerstones (individual, healthcare providers, regulatory authorities and supporting organizations) of immunization practices and discusses barriers to adult immunization and recommends solutions.

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which has frequently been criticized by the specialists working in this field.2-7

Thus, at this time, adult immunization in Turkey is limited to certain high risk groups such as health care professionals and populations aged >65 y. In addition, adults get vaccines under certain conditions, including pregnancy, military service, travel-pilgrimage, and employment procedures. However, any routine and widespread practice of immunization in adults has not been implemented yet. Routine immunization services have been provided by the Ministry of Health against 13 diseases and based on the recent data, the vaccination coverage was reported as 96% in the pediatric age group in 2014.10 However, vaccination coverage in adults is far lower than expected, even in the high risk groups. Thus, the rates of vaccination against pneumococcal infections and influenza among diabetics were reported as 0.1% and 9.1%, respectively. In chronic obstructive pulmonary disease patients, the rate of vaccination against pneumococcal infections at tertiary care facilities has been reported as 10–15%.11,12 and the rate of vaccination against influenza is 14.9%.13

Major issues concerning adult immunization and the recommended solutions were discussed in the National Immunization Workshop that was held by the Ministry of Health and Infectious Diseases Society in March 2014 with the participation of 3 government agencies, 23 associations and 6 industrial corporations.14 Lack of knowledge of people, lack of knowledge of physicians or inability to take action in spite of their knowledge, gaps in vaccine coverage provided by Social Security Organization were all underlined as barriers to adult vaccination. The solutions recommended for routine and widespread vaccination were as follows: education programs for healthcare professionals on adult vaccination and public counseling services, getting the support of public leaders, raising public awareness about the benefits and risks of vaccines, convincing anti-vaxxers to vaccinate, implementing legal regulations for misinformation and unfavorable publications, regular follow-up and structured medical records, the provision of an adequate amount of vaccine, the inclusion of an adult vaccination schedule in the EIP, and vaccination for free.14-16

Following the Workshop, 3 task forces by the Adult Vaccine Expert Group were established to clearly define the barriers to adult vaccination and to propose solutions in order to overcome these barriers at the individual patient level, at the healthcare provider level, and at the administrative level. Thus, Table 1 summarizes the report on the issues at the individual level and the solution recommendations, as discussed by the related group.

![Figure 1. Three effective cornerstones of immunization practices.](Image)

| Issue | Solution |
|-------|----------|
| Adults do not know that they have to be vaccinated | Run public service ads in printed media, on radio, television and on the Web, hold campaigns, raise people’s awareness by making community leaders and experts speak about adult vaccination and give precise information through web pages. |
| They have concerns about the safety of vaccines | Using the sources stated above, give evidence-based and speculation free information about the effects and side effects of vaccines. |
| Vaccination fees lead to a decrease in request | Vaccination should be free or should be accessed with a little contribution, based on the Expanded Immunization Program. |
| Disorganized immunization services are provided by separate units | A regular immunization service may be included in the system of general practitioners. An adult vaccination schedule should be included within the scope of the Expanded Immunization Program, adults should use vaccination charts and records should be monitored through a commonly accessible electronic medium. People should be accessed through the phone tracking system. |

Barriers to adult vaccination and recommended solutions have also been discussed worldwide. An analysis of the adults’ behavior regarding influenza and tetanus vaccines revealed that the risk perception is the major factor that determines the individuals’ vaccination. Besides, in several studies conducted in the United States of America, participants (n = 2002) explained their reasons for not receiving vaccine as follows; lack of physician recommendation and erroneous beliefs such as the futility of the vaccination of healthy people, while health care providers (n = 200) stated that adults were avoiding vaccination due to the fear of side effects, needle phobia, coverage gap etc.17 Another US study which included people aged >65 years, reported higher rates of vaccination when they were advised to be vaccinated by their physician,18 or when medical records were properly monitored.19 Similarly, in another study conducted in the Western European Countries, lack of physician recommendation was identified as the main reason for not being vaccinated, while the age of patients and their medical conditions and lack of a concrete proposal from regulatory
The workshops have recently raised awareness on the poor status of adult immunization in Turkey. Thus, soon after the National Immunization Workshop, the Ministry of Health decided to provide adult immunization program for the adult risk groups. This gives hope as a first step toward overcoming all barriers and promising healthy aging to all citizens.

**Abbreviation**

EIP Expanded Immunization Program

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Dr. D. E. Alici is the employee of Pfizer Ilaclari Ltd. Sti. Dr. A. Sayiner received honoraria for lectures in meetings sponsored or organized by Pfizer and Sanofi Pasteur and has been a member of advisory board for Pfizer.

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