CHAPTER 14

A Community Pharmacy Influenza Vaccination Service

Learning Outcomes

1. Describe types of data to collect for determining whether an immunization service should be established in the community and where to find such data.
2. Discuss steps to take during the planning and implementation phases to ensure acceptance of a new immunization service.
3. Explain the role of program evaluation and why objective and subjective data can be useful in the analysis.
4. Compare the example used in this chapter with other immunization services, identifying pros and cons of each service model.
5. Prepare an argument to support the role of pharmacists in immunization efforts.

Introduction

One of the basic tenets of public health is finding ways to avoid preventable injury, disease, and premature death. Vaccination against infectious disease is an excellent example of how that public health philosophy is put into action at a primary prevention level. A vaccinated person will have antibodies that help him or her avoid developing disease after being exposed to a causative organism. In spite of the apparent advantages of vaccination, the actual rates remain low so pharmacists are helping to fill the gap by becoming vaccinators.

This chapter will first look at influenza as a specific example of the public health issue of vaccine-preventable diseases; then it will describe a model vaccination program located in a community retail pharmacy. The steps and processes used by pharmacists to identify the type of service needed in the community and plan the services will be explored. Initial results from the first year of the new service will follow a presentation of the implementation steps. At the end of the chapter, the discussion will explore variations on the type of service that can be provided in a retail pharmacy, the role of pharmacy students and interns, and physical space considerations.

Public Health Issue: Vaccine Preventable Disease

Mortality and morbidity of influenza and pneumonia

It is difficult to say exactly how many deaths each year are due to influenza because: (1) most deaths occur from complications or secondary pneumonias and (2) the practice of combining pneumonia and influenza (P+I) death counts into a single measure. The combined P+I rate was 59,644 in 2004, making it one of the top 10 leading causes of death in the United States.[1] While the debate about actual numbers continues, it is generally accepted that the most vulnerable members of the population are the elderly and very young. The P+I death rate is estimated from the excess number of deaths from all causes during the winter months.[2] However, death is not the only indicator of health impact. Hospitalizations due to influenza and its associated illnesses have been estimated at 200,000 each year, with more in years when A(H3N2) viruses predominate and less when A(H1N1) and type B viruses are most prevalent.[2,3] The death rate has remained constant or slightly increased over the past decade. The reasons for this are not clear.

Vaccination rates for influenza

The influenza vaccine is unique in that a new shot is needed each year. This is not a **booster** shot; a new shot is needed because variants (or mutations) of the viruses emerge each year, and the vaccine has to be re-formulated to cover the latest variants. The vaccine is a trivalent product that contains two A type and one B type influenza virus. Annual shots are given because the influenza season, which is the winter months (November to March) in the United States, occurs once a year. The vaccine is very effective and can provide some cross-over protection for influenza viruses that are similar to those whose antigens are in the vaccine.

Rates for **vaccination** against influenza vary by age group, with around 72% of older Americans (≥65 years) receiving flu shots compared to only 23% of healthy adults under 50 years during the 2006–07 flu season.[4] For children under 2 years old, another high-risk group for influenza complications and death, the 2005 vaccination rates were about 33%.[5] Health care personnel (HCP) with a rate of 42% in 2007 are a subpopulation considered at high risk for influenza morbidity, mortality, or spread of the disease.[6]

HP2010 goal: increase vaccination rates

One of the 10 main goals of the **Healthy People 2010** initiative is to increase rates of **immunization** for vaccine-preventable disease, including influenza. Although the efforts of health departments and medical and nursing practitioners have increased vaccination rates, those rates are still below the goal level. For example, adult immunization rates for influenza and pneumococcal disease are now in the mid 50 to low 70% range, but the goal for each is 90%.[7] Reaching the goal has been hampered by difficulties in identifying which at-risk populations are not getting immunized and finding ways to reach them. Because health care workers can spread influenza or pneumococcal disease to their vulnerable patients, HP 2010 has a goal of getting 60% of all health care workers vaccinated for influenza by 2010.