Disease Prevention

[Name of the Writer]

[Name of the Institution]

Disease Prevention

**Analyze infectious diseases w.r.t epidemiology, outbreak, incidence, and prevalence**

Epidemiology is concerned in dealing with the outbreak and controlling of an infectious disease. Infectious disease epidemiology studies the interconnection between host and infectious agent (Lanini et.al, 2016). Infectious disease epidemiologists always try to conceive effective strategies that would prove vital in containing an infectious disease. An infectious disease outbreak occurs when a large number of people are infected by the disease in a specific community or a region (Lanini et.al, 2016). An infectious disease outbreak can happen in one community and extend up to other communities or even countries. An incidence of infectious disease can be defined as the rate of emergence of a new case of the disease in a given week, month or a year (Lanini et.al, 2016). On the other hand, prevalence is defined as the number of cases of infectious disease alive (Lanini et.al, 2016).

**Evaluate the role of nursing in epidemiology**

The role of an epidemiologist nurse cannot be undermined. A nurse has an important role to play in infectious disease prevention and health promotion among masses. Nurse epidemiologist studies and analyzes samples of people coming from different socio-economic backgrounds infected with contagious diseases (de Medeiros et.al, 2015). The nurse epidemiologist, based on the results of the investigations, draws robust strategies and measures to contain the disease (de Medeiros et.al, 2015). Furthermore, a nurse epidemiologist identifies vulnerable populations that are at increased risk due to infectious disease. Additionally, a nurse epidemiologist oversees the progress of the patients afflicted with infectious disease. A nurse epidemiologist also plays an important part in programs intended to contain infectious diseases. The nurse epidemiologist may identify certain priorities that need to be urgently redressed. A widespread misconception about the role of epidemiologist nurses is found among the general population. The nurse epidemiologist never administers direct treatment to the patients. However, they play their role by suggesting measures and strategies contain an infectious disease (de Medeiros et.al, 2015).

**Evaluating three infectious diseases locally, statewide, and nationally w.r.t Healthy People 2020 objectives**

Recently, the measles outbreak was witnessed in New York City . Measles, a highly infectious disease, can have detrimental complications (Adams, 2016). The worst possible outcome of measles if not diagnosed can be death. There are more than thirty objectives laid down in the Healthy People 2020 goals. The first goal aims at reducing and eliminating the emergence of cases of vaccines preventable diseases. Because measles is a vaccine-preventable disease, the reluctance from most parents to administer the vaccine to their children seriously jeopardized the success of the Healthy People 2020 agenda .

The state of West Virginia has been grappling with Chlamydia, a sexually transmitted infectious disease. Chlamydia can be treated by taking antibiotics (Adams, 2016). However, America’s Health Ranking’s annual report has portrayed a grim picture as far as Chlamydia is concerned. According to the report, the highest incidence rate of Chlamydia is among adults aging 15 to 24. The high number of cases of Chlamydia is posing a serious threat to the Health People 2020 agenda.

Sadly, at the national level, there exists an infectious disease that is found to be increasing instead of abating. Salmonella is a foodborne infectious disease that can be easily prevented by adopting simple practices like regular hand washing and safer animal handling practices (Adams, 2016). However, in the year 2016, more than 53,000 newer cases of Salmonella were reported.

Taking into consideration the three diseases at local, state, national level, there is a dire need to increase awareness of vaccination and immunization, safer sexual and animal handling practices among the general population to achieve the goals set under the Healthy People 2020.

**Evidence-based practices aimed at reducing infectious diseases**

Evidence-based practice is aimed at incorporating research evidence into the medical expertise domain (Shen et.al, 2019). Evidence-based practices have been known for containing infectious diseases significantly. In the state of Washington, Quality Innovation Network-Quality Improvement Organization has been established that intends to improve the prevention of infectious disease (Shen et.al, 2019). Furthermore, the long-term goal is to raise awareness in the general public through awareness that infectious diseases can be prevented by proper vaccination, immunization, and safer practices.

**References**

Adams, D. A. (2016). Summary of notifiable infectious diseases and conditions—United States, 2014. *MMWR. Morbidity and mortality weekly report*, *63*.

de Medeiros, A. R. P., Larocca, L. M., Chaves, M. M. N., & Peres, A. M. (2015). The work process of nurses in hospital epidemiology centers. *Cogitare Enferm*, *20*(1), 67-73.

Lanini, S., Easterbrook, P. J., Zumla, A., & Ippolito, G. (2016). Hepatitis C: global epidemiology and strategies for control. *Clinical Microbiology and Infection*, *22*(10), 833-838.

Shen, A. K., Groom, A. V., Leach, D. L., Bridges, C. B., Tsai, A. Y., & Tan, L. (2019). A pathway to developing and testing quality measures aimed at improving adult vaccination rates in the United States. *Vaccine*, *37*(10), 1277-1283.