The Prevalence of Immunosuppression Among Adults: United States, 2013
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ABSTRACT

Identifying the prevalence of immunosuppression is important for planning pandemic and seasonal management of infectious diseases. In 2013, the CDC conducted a national survey to identify the prevalence of self-reported immunosuppression among 34,426 respondents in the US. The overall prevalence of self-reported immunosuppression was 4.2% (n=1,442). We found marked increases in the prevalence of immunosuppression by age, race/ethnicity, gender, and cancer history. This prevalence indicates the need for improved surveillance and targeted interventions to reduce the burden of conditions and infections that cause immunosuppression.

METHODS

Data Source: The National Health Interview Survey (NHIS), an annual household-based telephone survey conducted since 1957 by the National Center for Health Statistics (NCHS) and administered by the US Census Bureau. Respondents are sampled from a national probability sample designed to be representative of the US, with details available at https://www.cdc.gov/nchs/nhis.htm.

Data Source: This analysis is based on 34,426 respondents in the 2013 National Health Interview Survey (NHIS). Respondents were asked if they had ever been told by a health professional that their immune system was weakened and, if they had, their age, race/ethnicity, gender, and cancer history were recorded. With a limited number of survey questions, our study was not designed to be a comprehensive analysis of all immunosuppressive conditions. The data should be interpreted as providing important information for planning purposes and to provide a baseline with which to assess trends.

BACKGROUND

The number of self-reported immunosuppressed adults in the US is currently increasing.

• More indications for immunosuppressive treatments
• Improved medical management which has increased life expectancy of immunosuppressed adults
• Prevalence of co-occurring chronic medical conditions, e.g. diabetes, hypertension, and obesity

The prevalence of chronic diseases increases with age, race and gender. Immunosuppression is a serious health condition that can cause major public health implications, including outbreaks, travel medicine, and disease control. Such increases can have major implications for health care and public health goals.

STUDY OBJECTIVE

To determine the prevalence of self-reported immunosuppressed adults in the US.

RESULTS

The overall prevalence of self-reported immunosuppression was 4.2% (n=1,442). We found significant increases in the prevalence of immunosuppression by age, race/ethnicity, gender, and cancer history. The prevalence was highest among older adults (75+ years of age), black respondents, and those reporting a history of cancer.

CONCLUSIONS

This increase in immunosuppression is important for planning pandemic and seasonal management of infectious diseases. The prevalence of immunosuppression among adults is increasing and its implications should be considered in public health and health care planning.

TABLE

The Prevalence of Immunosuppression Among Adults: United States, 2013

Self-reported immunosuppressed status: National Health Interview Survey, 2013

<table>
<thead>
<tr>
<th>Number (%)</th>
<th>Prevalence per 100 US population (95% CI)</th>
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<tr>
<td>Currently immunosuppressed* (N = 34,426)</td>
<td>951 (2.8)</td>
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*Defined as respondents who, between 1997 and 2006, responded yes to either question 1 or both questions 2 and 3, or both questions 4 and 5. (See Table 7 for details.)

The prevalence of self-reported immunosuppression among adults in the US is increasing. The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.