



Rhode Island HEALTH Web Data Query System: Death Certificate Module

Annie Gjelsvik, PhD, and Karine Monteiro, MPH

The Rhode Island HEALTH Web Data Query System (RI HEALTH WDQS) allows health professionals, community agencies, Rhode Island Health Department personnel, and the general public to access **Behavioral Risk Factor Surveillance System (BRFSS)**, **Youth Risk Behavior Survey (YRBS)** and **Death Certificate Data** online. This resource can provide health professionals and community organizations with valuable information with which to improve the health of Rhode Islanders through data-driven programs and policies.

The RI HEALTH WDQS is publicly accessible and requires no sign-in or registration. It contains ten years (1998-2007) of RI BRFSS data on over twenty topics, four years (2001, 2003, 2005 and 2007) of RI YRBS data on over eleven topics and two years (2004 and 2005) of Death Certificate data on fifty two underlying causes of death. (Table 1). The BRFSS module has been described elsewhere¹ and the YRBS module has very similar design and functionality. Here we describe the new addition of Death Certificate Data.

DESIGN AND FUNCTIONALITY

The RI HEALTH WDQS Death Module allows users to obtain crude and age-adjusted or age-specific rates, select all cause or specific underlying cause of death (with up to four sub categories) and limit tables by demographics. In addition users can combine years in order to obtain stable estimates, define the report content and output. Output can be viewed in a browser window or downloaded to an Excel file. To ensure confidentiality, the RI HEALTH WDQS Death Query module adheres to the same rules as consistent with the Vital Records determination and masks information for causes of death for which there are 5 or fewer deaths.²

The RI HEALTH WDQS Death Module includes only data on Rhode Island residents. The deaths of RI residents occurring in other states are included in the data while deaths of non-RI residents occurring in RI are not included. This enables crude, age-adjusted and age-specific rates to be determined using US Census data for Rhode Island as the denominator. Data posted on the RI HEALTH WDQS Death Module are posted initially as provisional data and are updated once to final when the Vital Statistics Annual Report² is issued for that year. Provisional data are close to final but subject to changes as additional records are added to the dataset or updated information is obtained. Therefore, before the data are final, deaths of RI residents occurring in other states may not have yet been included.

The Death Module reports on underlying cause of death

(not contributing causes). The results found here may not illustrate the full picture of the burden due to deaths of some diseases. For instance an underlying cause of death and contributing cause of death identified 2.5 times more diabetes deaths.³ Missing, unknown, not stated and not classifiable data are not tabulated in the output tables; however, they are included in the totals. Therefore the individual categories may not sum to the total.

DEVELOPMENT PROCESS

The Centers for Disease Control and Prevention's (CDC) Assessment Initiative Cooperative Agreement supported the development of this system. Core programming used for the RI HEALTH WDQS Death Module was adapted from the Arkansas Department of Health Center for Health Statistics Query System.⁴ The Rhode Island Assessment Initiative will use a similar process to create a Birth Data module, scheduled to go on-line by June 2009.

HOW TO ACCESS THE SYSTEM

You can access each of the modules from the RI HEALTH WDQS homepage (<http://www.health.ri.gov/data/webquery.php>) or navigate there from the individual database web pages.

FUTURE PLANS

The project will incrementally expand access to other databases in phases, beginning with Birth Certificate data and Middle School Youth Risk Behavior. Other databases considered for inclusion in the system within the next five years include **Pregnancy Risk Assessment Monitoring System (PRAMS)**, Hospital Inpatient and Hospital Outpatient databases and Cancer Registry Data.

The Rhode Island Assessment Initiative will be holding workshops on how to access Rhode Island vital statistics data and how to interpret and present results. This workshop will be modeled on the *Web Access to Rhode Island Public Health Data* workshops developed to provide the Rhode Island public health work force with training in how to access data and interpret and present results of BRFSS and YRBS data.

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Table 1: Causes of Death Currently Available on Rhode Island's HEALTH Web Data Query System – Death Certificate Module

Salmonella infections (A01-A02)
 Shigellosis and amebiasis (A03, A06)
 Certain other intestinal infections (A04, A07-A09)
 *Tuberculosis (A16-A19)
 Whooping cough (A37)
 Scarlet fever and erysipelas (A38, A46)
 Meningococcal infection (A39)
 Septicemia (A40-A41)
 Syphilis (A50-A53)
 Acute poliomyelitis (A80)
 Arthropod-borne viral encephalitis (A83-A84, A85.2)
 Measles (B05)
 Viral hepatitis (B15-B19)
 Human immunodeficiency virus (HIV) disease (B20-B24)
 Malaria (B50-B54)
 Other and unspecified infectious and parasitic diseases and their sequelae (A00, A05, A20-A36, A42-A44, A48-A49, A54-A79, A81-A82, A85.0-A85.1, A85.8, A86-B04, B06-B09, B25-B49, B55-B99)
 *Malignant neoplasms (C00-C97)
 In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48)
 Anemias (D50-D64)
 Diabetes mellitus (E10-E14)
 *Nutritional deficiencies (E40-E64)
 Meningitis (G00, G03)
 Parkinson's disease (G20-G21)
 Alzheimer's disease (G30)
 *Major cardiovascular disease (I00-I78)
 Other diseases of circulatory system (I80-I99)
 *Influenza and pneumonia (J10-J18)
 *Other acute lower respiratory diseases (J20-J22)
 *Chronic lower respiratory diseases (J40-J47)
 Pneumonitis due to solids and liquids (J69)
 Other diseases of respiratory system (J00-J06, J30-J39, J67, J70-J98)
 Peptic ulcer (K25-K28)
 Diseases of appendix (K35-K38)
 Hernia (K40-K46)
 *Chronic liver disease and cirrhosis (K70, K73-K74)
 Cholelithiasis and other disorders of gallbladder (K80-K82)
 *Nephritis, nephrotic syndrome and nephrosis (N00-N07, N17-N19, N25-N27)
 Infections of kidney (N10-N12, N13.6, N15.1)
 Hyperplasia of prostate (N40)
 Inflammatory disease of female pelvic organs (N70-N76)
 *Pregnancy, childbirth and the puerperium (O00-O99)
 Certain conditions originating in the perinatal period (P00-P96)
 Congenital malformations, deformations, and chromosomal abnormalities (Q00-Q99)
 Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)
 All other disorders (Residual)
 *Accidentals (unintentional injuries) (V01-X59, Y85-Y86)
 *Intentional self-harm (suicide) (X60-X84, Y87.0)
 Assault (homicide) (X85-Y09, Y87.1)
 Legal intervention (Y35, Y89.0)
 *Events of undetermined intent (Y10-Y34, Y87.2, Y89.9)
 Operations of war and their sequelae (Y36, Y89.1)
 Complications of medical and surgical care (Y40-Y84, Y88)

*Indicates diagnosis category contains subcategories
 ICD 10 codes are in parentheses

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Annie Gjelsvik, PhD, is Assistant Professor (Research), Warren Alpert Medical School of Brown University and Project Coordinator of the Rhode Island Department of Health's Assessment Initiative.

Karine Monteiro MPH, is Data Manager of the Rhode Island Department of Health's Assessment Initiative.

Disclosure of Financial Interests

The authors have no financial interests to disclose.

