Surveillance and Evaluation Data Resource Guide for Heart Disease and Stroke Prevention Programs

Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention and Health Promotion

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About this Guide

High blood pressure, high sodium intake, high cholesterol, and smoking continue to put more people at risk of heart disease and stroke. To address these risk factors, the CDC focuses on the ABCS of heart disease and stroke prevention—appropriate **A**spirin therapy, **B**lood pressure control, **C**holesterol control, and **S**moking cessation. This cardiovascular disease-specific guide serves as a companion resource *to Surveillance and Evaluation Data Resources for Comprehensive Tobacco Control Programs,* which focused on cigarette smoking and smoking cessation, produced by the CDC's Office of Smoking and Health in June 2014. This resource, along with other guidelines and information, can be found at Surveillance and Evaluation Data Resources for Comprehensive Tobacco Control Programs.

Surveillance and Evaluation Data Resources for Heart Disease and Stroke Prevention Programs is an at-a-glance compilation of data sources useful for heart disease and stroke prevention programs conducting policy or data surveillance and/or evaluation. This guide addresses the broad spectrum of programs supported by the Division for Heart Disease and Stroke Prevention and not all sources are applicable to all programs. It is meant to be used by program managers and evaluators in the planning and evaluation stages of heart disease and stroke prevention programs. When and how to use the available resources is addressed in other evaluation resources such as *Using Indicators for Program Planning and Evaluation,* and during technical assistance events. This resource and others are available at Division for Heart Disease and Stroke Prevention Evaluation Resources.

Surveillance and Evaluation Data Resources for Heart Disease and Stroke Prevention Programs includes a variety of new topic-specific resources, including geographic information systems (GIS) surveillance tools, performance measures for hypertension, and updated tools essential to planning, implementation, and evaluation in heart disease prevention and control. The guide also includes an updated media tools table for tracking and reporting relevant media metrics.

Our objective is to provide basic information on each data source to assist state heart disease and stroke prevention programs in identifying data that are relevant to planning, monitoring, and evaluation. We encourage users to review and assess the appropriateness of the listed resources in meeting their program's needs. The data sources listed here provide a wide variety of cardiovascular health-related information. For example, the stroke registries and hospital discharge records have data on health outcomes. An attempt was made to include the majority of cardiovascular health-related data sources in this guide. However, this ever-changing field makes it impossible to include all data sources available at any point in time, especially those data sources related to media tracking.

Some of the most commonly used sources include: All-Payer Claims Database, American Heart Association: Heart Disease and Stroke Statistical Update, Behavioral Risk Factor Surveillance System (BRFSS), CDC Division for Heart Disease and Stroke Prevention: Data Trends and Maps, Chronic Disease GIS Exchange, Chronic Disease Indicators, Community Commons, Community Health Status Indicators, FASTTATS, Health Resources and Services Administration: Area Health Resource Files, Interactive Atlas of Heart Disease and Stroke, Medicaid Adult Health Care Quality Measurement Program, Medicare Advantage- Star Ratings, Medicare Shared Savings Program, Million Hearts Clinical Quality Measures Dashboard, National Committee for Quality Assurance (NCQA): Healthcare Effectiveness Data and Information Set (HEDIS), National Emergency Medical Services Information System (NEMSIS), National Vital Statistics System (NVSS), and Office of the National Coordinator (ONC) for Health Information Technology Certified Health IT List.

Data from these sources can be used to compare program impact and outcomes with those of other states and the nation as a whole. The data sources are organized by major categories: national and state surveys and tools, registries and vital statistics, and topic-specific tools, such as National, State, and Local Policy tracking. The columns in each table provide the following information:

Table Title				
Purpose	**Topic(s) Addressed relating to Heart Disease and Stroke Prevention**	**Sampling Frame and Data Ownership**	**Methodology**	**Timing and Frequency**
Name of the data source/tool with URL hyperlink				
• Purpose(s) of the data source or tool.	• Topics on which information is collected or available for that data source or tool.	• Population from which the sample is taken, for example high schools, all visitors to a web site, or U.S. adults. • To whom the data belongs. • Cost	• Subject Selection: How the sample was selected, for example, random sampling or census. • Survey Delivery. How the survey or tool is delivered, for example, self-administered survey or in-person interview. • Number of Core Questions.	• Year survey or data source was first used. • Frequency data source is used for data collection, for example, annually or periodically.

Not all of the data sources or tools are available in every state. The conditions that organizations or individuals must meet, as well as any cost associated with accessing the data are notated. However, if a cost is associated with the data source, the cost may vary based on the data elements requested.

Consequently, some states may consider investing funds to develop systems to address gaps in data. New data collection systems should be directly relevant to state programmatic goals, objectives, and activities. However, prior to choosing data sources or investing program resources to develop new data systems, programs should consider some of the following issues: feasibility, timeliness, frequency, comparability, credibility, and available resources. For more information on these considerations, contact CDC Info at (800-CDC-INFO) or (800-232-4636) or TTY at (888) 232-6348.

Acronyms Seen in this Guide

ABCS	Aspirin (where appropriate), Blood pressure control, Cholesterol management, & Smoking cessation		**HVBP**	Hospital Value-Based Purchasing
ACO	Affordable Care Organization		**IHME**	Institute for Health Metrics and Evaluation
ASTHO	Association of State and Territorial Health Officials		**MEPS**	Medical Expenditure Panel Survey
BRFSS	Behavioral Risk Factor Surveillance System		**NACDD**	National Association of Chronic Disease Directors
CARES	Cardiac Arrest Registry to Enhance Survival		**NAMCS**	National Ambulatory Medical Care Survey
CCW	CMS Chronic Conditions Data Warehouse		**NCSL**	National Council of State Legislatures
CDC	Centers for Disease Control and Prevention		**NEMSIS**	National Emergency Medical Services Information System
CMS	Centers for Medicare & Medicaid Services		**NHAMCS**	National Hospital Ambulatory Medical Care Survey
CSTE	Council of State and Territorial Epidemiologists		**NHANES**	National Health and Nutritional Examination Survey
FDA	Food and Drug Administration		**NHIS**	National Health Interview Survey
FNDDS	Food and Nutrient Database for Dietary Studies		**NVSS**	National Vital Statistics System
GBD	Global Burden of Disease		**ONC**	Office of the National Coordinator
GHO	World Health Organization Global Health Observatory (GHO)		**PCI**	Percutaneous Coronary Intervention
GHPSS	Global Health Professions Student Survey		**PRAMS**	Pregnancy Risk Assessment Monitoring System
GIS	Geographic Information System		**Profiles**	CDC School Health Profiles
GSHS	Global School-Based Student Health Survey		**SAMHSA**	Substance Abuse and Mental Health Services Administration
GWTG	Get With the Guidelines		**SHPPS**	School Health Policies and Practices Study
GSPS	Global School Personnel Survey		**SCHES**	State Cardiovascular Health Examination Survey
HCUP	Healthcare Cost and Utilization Project		**SR**	Standard Reference
HEDIS	Healthcare Effectiveness Data and Information Set		**TDS**	Total Diet Study
HHS	US Department of Health and Human Services		**USDA**	U.S Department of Agriculture
HRS	Health and Retirement Study		**WHO**	World Health Organization

Table 1. National and State Surveys, Systems, and Tools				
Purpose	**Topic(s) Addressed relating to Heart Disease and Stroke Prevention**	**Sampling Frame and Data Ownership**	**Methodology**	**Timing and Frequency**
AHRQ Healthcare Cost and Utilization Project – National Inpatient Sample				
• To provide national estimates for of health care utilization, access, charges, and outcomes	• Discharge status • Length of stay • Severity and comorbidity measures	• All HCUP-participating hospitals • Data ownership: Agency for Healthcare Research and Quality • Cost: Cost associated with the data	• Data is sampled from all states participating in HCUP, representing more than 95% of the US population • Approximates a 20% stratified sample of discharges from US community hospitals, excluding rehabilitation and long-term acute care hospitals	• Initiated in 1988 • Frequency: continuously
AHRQ Healthcare Cost and Utilization Project - National Statistics on all Stays				
• To provide nationwide inpatient data by ICD diagnosis • To provide access to data by specific conditions and groups of conditions • To provide access to health statistics and information on hospital inpatient and emergency department utilization	• Use of hospital inpatient services by CVD diagnosis • Cost of CVD care • Access to CVD care • Quality of CVD care	• All community hospitals in the 48 participating states • Data ownership: Agency for Healthcare Research and Quality • Cost: No cost	• Data is sampled from the HCUP State Inpatient Databases • Approximates 20% of the discharges from all U.S. community hospitals, which equates to approximately 7 million hospital stays per year	• Initiated in 1988 • Frequency: continuously
AHRQ Healthcare Cost and Utilization Project - State Statistics on all Stays				
• To provide state-by-state inpatient data by ICD diagnosis • To provide access to data by specific conditions and groups of conditions • To provide access to health statistics and information on hospital inpatient and emergency department utilization	• Use of hospital inpatient services by CVD • Cost of CVD care • Access to CVD care • Quality of CVD care	• All inpatient care records from community hospitals in a given state • Data ownership: Data is owned by each state, but is distributed by the AHRQ via a partnership • Cost: Cost associated with the state specific files	• Database is created by the AHRQ through a Federal-State-Industry Partnership • Consists of data files from organizations in 47 participating states • Composed of annual, State-specific files that share a common structure and common data elements • Data elements are coded in a uniform format across all States • 28 of the 47 data organizations that participate in HCUP have agreed to release their State-specific files through the HCUP Central Distributor under the auspices of AHRQ	• Initiated in 1995 • Frequency: annually
AHRQ Healthcare Cost and Utilization Project -National Statistics on Emergency Department Visits				
• To provide nationwide emergency department data by ICD diagnosis • To provide access to data by specific conditions and groups of conditions • To provide access to health statistics and information on hospital inpatient and emergency department utilization	• Use of emergency services CVD diagnoses • Cost of CVD care • Access to CVD care • Quality of CVD care	• All emergency care records from community hospitals • Data ownership: Data is owned by each state, but is distributed by the AHRQ via a partnership • Cost: Cost associated with the state specific files	• Constructed using the HCUP State Emergency Department Databases (SEDD) and the State Inpatient Databases (SID) • The SEDD capture discharge information on ED visits that do not result in an admission • The SID contain information on patients initially seen in the emergency room and then admitted to the same hospital. • 30 HCUP partner states are contributors	• Initiated in 2006 • Frequency: annually

Table 1. National and State Surveys, Systems, and Tools

Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
AHRQ Healthcare Cost and Utilization Project - State Statistics on Emergency Department Visits				
• To provide state-by-state emergency department data by ICD diagnosis • To provide access to data by specific conditions and groups of conditions • To provide access to health statistics and information on hospital inpatient and emergency department utilization	• Use of emergency services by CVD diagnoses • Cost of CVD care • Access to CVD care • Quality of CVD care	• All emergency care records from community hospitals • Data ownership: Data is owned by each state, but is distributed by the AHRQ via a partnership • Cost: Cost associated with the state specific files	• Constructed using the HCUP State Emergency Department Databases (SEDD) and the State Inpatient Databases (SID) • The SEDD capture discharge information on ED visits that do not result in an admission • The SID contain information on patients initially seen in the emergency room and then admitted to the same hospital • 30 HCUP partner states are contributors	• Initiated in 2006 • Frequency: annually
AHRQ Healthcare Cost and Utilization Project - National Statistics on Children				
• To provide nationwide inpatient data for children by ICD diagnosis • To provide access to data by specific conditions and groups of conditions • To provide access to health statistics and information on hospital inpatient and emergency department utilization	• Use of hospital inpatient services by CVD diagnoses • Cost of CVD care • Access to CVD care • Quality of CVD care	• All inpatient care records from community hospitals in a given state for children under the age of 21. • Data ownership: Data is owned by each state, but is distributed by the AHRQ via a partnership. • Cost: Cost associated with the state specific files	• Includes a sample of pediatric discharges from all HCUP hospitals in the sampling frame – the State Inpatient Databases that agreed to participate in the Kid Inpatient Database. • Pediatric discharges are stratified by uncomplicated in-hospital birth, complicated in-hospital birth, and all other pediatric cases. • Discharges are sorted by hospital and diagnosis.	• Initiated in 1997 • Frequency: annually
All-Payer Claims Databases (APCDs or APDs)				
• To facilitate information sharing capacity for states who have developed, or are developing, an all payer healthcare claims database	• Access to CVD medication • CVD medication adherence • CVD diagnoses • CVD drug codes • Revenue Codes	• Medical and pharmacy claims from 7 states that are submitted by commercial payers, 3rd party administrators, and publicly-administered programs • Data ownership: individual state • Cost: Cost associated with the data	• The APCD Council does not collect, store or release state claims data. Each state that allows for public release of their claims data has their own data release policy and process. States currently releasing data include: CO, MA, ME, NH, OR and VT	• Initiated in 2007 • Frequency: continuously

Table 1. National and State Surveys, Systems, and Tools				
Purpose	**Topic(s) Addressed relating to Heart Disease and Stroke Prevention**	**Sampling Frame and Data Ownership**	**Methodology**	**Timing and Frequency**
Behavioral Risk Factor Surveillance System (BRFSS)				
• To provide descriptive data and health-related risk behaviors and events, chronic health conditions, and use of preventive services • To provide a web-platform that allows for simple statistics	• Clinical diagnosis of heart attack, coronary heart disease, and stroke • High blood pressure and cholesterol • Aspirin Use • Sodium Intake • Cardiac Rehabilitation	• State level • Adults aged 18 years or older • Data ownership: CDC • Cost: No cost	• Random design, telephone survey (landline and cell phone) • Annual core survey has 3 questions related to heart cardiovascular health • Rotating core includes question on blood pressure and cholesterol • State-specific modules may be used and can include Actions to Control Blood Pressure, Cardiovascular Health, and Sodium Consumption • States may add questions at their discretion	• Initiated in 1984 • Frequency: annually
CDC School Health Profiles				
• To provide data on health policies and activities in schools for states, large urban school districts, territories, and tribal governments	• School health education requirements and content • School health policies related nutrition • Physical education and physical activity • School health coordination • Referral services for high blood pressure	• Representative sample of public middle and high schools • Data ownership: States, territories, tribal governments, and school districts • Cost: No cost	• Self-administered • Mailed questionnaires	• Initiated in 1994 • Frequency: biennially
CMS Virtual Resource Data Center				
• To provide timely access to Centers for Medicare and Medicaid Services program data in a more efficient and cost-effective manner	• Varies based on data source (may include hospitalizations, prescription, outpatient, etc).	• Data ownership: CMS • Cost: Cost associated with the data	• Varies based on data source	• Varies based on data source
Community Health Survey, The Heart Follow Up Study				
• To provide a baseline population sodium intake estimate for NYC. • To determine mean sodium intake for NYC whites, blacks, and Hispanics • To determine mean population blood pressure measurement • To assess the relationship between blood pressure and sodium intake • To assess sodium intake for those who are recommended to limit sodium intake to 1,500 mg per day (blacks, persons aged >51 years, and persons of any age with hypertension, diabetes or chronic kidney disease)	• General health status and mental health • Health care access • Cardiovascular health • Diabetes • Nutrition and physical activity • Smoking	• Participants recruited from the NYC Community Health Survey (random digit dial of approximately 10,000 adults) • Data ownership: New York City Department of Health and Mental Hygiene • Cost: No cost	• Telephone survey • Urine collection • In-home medical exam	• Initiated in 2002 • Frequency: annually

Table 1. National and State Surveys, Systems, and Tools

Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
Current Medicare Beneficiaries Survey				
• To determine expenditures and sources of payment for all services used by Medicare beneficiaries, including co-payments, deductibles, and non-covered services • To ascertain all types of health insurance coverage and relate coverage to sources of payment • To trace processes over time, such as changes in health status and spending down to Medicaid eligibility and the impacts of program changes, satisfaction with care, and usual source of care	• Cost and utilization • Health status and functioning • Heart attack, stroke, blood pressure, cholesterol, physical activity, diet • Access to and satisfaction with care • Insurance coverage • Health behaviors (e.g., physical activity)	• Nationally-representative sample of Medicare beneficiaries • Data ownership: CMS • Cost: Cost associated with the data	• Sample is selected from Medicare enrollment files; oversampling among disabled persons under age 65 and among persons 80 and older • Version of questionnaire is determined based on the setting and health of the participant	• Initiated in 1991 • Frequency: annually
Health and Retirement Study (HRS)				
• To monitor the health and well-being of individuals 50+ years old in the United States • To explore the changes in labor force participation and the health transitions that individuals undergo toward the end of their work lives and in the years that follow	• Health status (Hypertension, heart disease, heart attack, and stroke occurrence)	• Approximately 20,000 Americans who are near or older than retirement in the United States • Cost: No cost	• Longitudinal household surveys (in-depth interviews	• Frequency: biennially
Integrated Public Health Surveys (2010-2011)				
• To provide consolidated data from 2107 local health departments	• Data merged from: • 2010 National Profile of Local Health Departments, a survey of local health departments conducted by the National Association of County and City Health Officials (NACCHO) • 2011 National Profile Survey of Local Boards of Health, a survey of local boards of health conducted by the National Association of Local Boards of Health (NALBOH) • 2010 State and Territorial Public Health Survey, a survey of state and United States territory health departments conducted by the Association of State and Territorial Health Officials (ASTHO) • 2011 County Health Rankings, a compilation of county-level health measures and within-state county health rankings produced by the University of Wisconsin Population Health Institute • 2010 Census Demographic Profile Summary File, a series of tables with housing and population data from the 2010 Census	• Sample: The NACCHO, NALBOH, and ASTHO surveys attempted to interview all LHDs, LBHs, and state health departments in the United States • Data ownership: Robert Wood Johnson Foundation • Cost: No cost	• Mailed questionnaire • Web-based survey	• N/A

Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
Table 1. National and State Surveys, Systems, and Tools				
Medical Expenditure Panel Survey (MEPS)				
• To understand the specific health services that Americans use, how frequently they use them, the cost of these services, and how they are paid for • To collect data on the cost, scope, and breadth of health insurance held by and available to U.S. workers	• Access to health care • Health status • Home health care • Medical conditions • Minority health • Pharmacies • Preventive care • Usual source of care	• Families and individuals • Their medical providers (doctors, hospitals, pharmacies, etc.) • Employers across the United States • Data ownership: Agency for Healthcare Research and Quality • Cost: Cost associated with the data	• Telephone surveys • Mailed questionnaires	• Initiated in 1996 • Frequency: annually
National Emergency Medical Services Information System (NEMSIS)				
• To standardize and collects state-by-state EMS data and shows outcomes based on patient complaint	• Access to emergency care for hypertension • Quality of emergency care for hypertension	• NEMSIS is not a population-based dataset. • Data ownership: National data is owned by the National Highway and Traffic Safety • Cost: No cost	• EMS providers in all states create patient care reports electronically using NEMSIS-compliant software • Agencies transmit a portion of their data into a state database • Participating states then transmit a smaller subset of their data to the National EMS Database, where it is available for EMS stakeholders, researchers and public use	• Initiated in 2006 • Frequency: annually
National Health and Nutrition Examination Survey (NHANES)				
• To estimate the proportion of persons in the US population and in designated subgroups with selected conditions, diseases, and risk factors • To monitor trends in the prevalence, treatment, and control of selected diseases • To explore relationships between diet, nutrition, and health • To explore emerging public health issues • To provide baseline health characteristics to link with mortality data from the National Death Index (http://www.cdc.gov/nchs/ndi.htm) and other administrative records.	• Direct measurement of blood pressure, height/weight, serum (cholesterol, diabetes, kidney function) • Cardiovascular fitness • Medication use for cardiovascular conditions • Medical diagnosis of congestive heart failure, coronary heart disease, heart attack • Family member's cardiovascular health history	• Nationally representative sample of about 5000 people each year • State level data unavailable • Data ownership: CDC • Cost: No cost	• In person surveys	• Initiated in the 1960s • Frequency: continuously (data released in 2 year cycles)

Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
Table 1. National and State Surveys, Systems, and Tools				
National Health Interview Survey (NHIS)				
• To provide data for analyzing health trends and tracking progress toward achieving national health objectives	• Physical and mental health status • Chronic conditions, including asthma, diabetes, and hypertension • Access to and use of health care services • Health related behaviors, including smoking, alcohol use, and physical activity • Measures of functioning and activity limitations	• Civilian non-institutionalized US citizens • Data Ownership: CDC • Cost: No cost	• Confidential interviews conducted in household	• Initiated in 1957 • Frequency: annually
National Vital Statistics System (NVSS)				
• Birth Certificate data-To provide data on tobacco use by pregnant women • Death Certificate data: To provide data on causes of death	• Indicators vary by state • ICD codes	• State level • Women who recently gave birth • Deceased adults and children • Data ownership: States • Cost: No cost	• Certificates completed by physicians, registered nurse, or patient at hospitals and clinics • May be used at the sub-state level (i.e., counties, health districts)	• Frequency: dependent on state
Pregnancy Risk Assessment Monitoring System (PRAMS)				
• To provide data for state health officials to use to improve the health of mothers and infants • To allow CDC and the states to monitor changes in maternal and child health indicators (e.g., unintended pregnancy, prenatal care, breastfeeding, smoking, drinking, infant health) • To enhance information from birth certificates used to plan and review state maternal and infant health programs	• High blood pressure • Hypertension • Maternal alcohol and tobacco consumption • Pregnancy-related morbidity	• Women who have had a recent live birth • Data ownership: CDC • Cost: No cost	• Mailed surveys • Telephone interview	• Initiated in 1987 • Frequency: annually
School Health Policies and Practices Study (SHPPS)				
• To provide national data on components of school health at the state, school district, school, and classroom levels	• Physical education and physical activity • Health services • Nutrition environment and services • Healthy and safe school environment • Physical environment • Employee wellness • Family engagement • Community involvement • Blood Pressure	• All states • Nationally representative sample of school districts • Nationally representative sample of public and private elementary schools, middle schools, and high schools • Data ownership: CDC • Cost: No cost	• Computer-assisted personal interviews • Web-based surveys • Self-administered, mailed questionnaires	• Full study: 1994, 2000, 2006 • State and district levels: 2012 • School and classroom levels: 2014

Table 1. National and State Surveys, Systems, and Tools				
Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
State Cardiovascular Health Examination Survey (SCHES)				
• To inform and provide guidance the states in the development strategies to promote cardiovascular health • To enhance the scientific capacity of a state program by implementing a state cardiovascular health examination survey to collect data on levels of blood pressure and blood cholesterol and other relevant information • To provide information for priority populations to guide the state in the development, implementation, and evaluation of cardiovascular health promotion and risk factor control strategies to eliminate health disparities	• Varies by state • Weight history (including self-reported weight and height) • Smoking and tobacco use • Blood pressure knowledge/ history • Cholesterol knowledge/ history • Cardiovascular disease knowledge/ history • Dietary supplements and prescription medication • Diet behavior and nutrition • Physical activity • Family health history	• Arkansas, Kansas, Oklahoma, Washington, Mississippi Delta region • Representative sample from each state or region • Data ownership: State • Cost: Depends on state	• Varies by state • Telephone or in-person survey • Physical measurements • Food frequency questionnaire • Self-administered questionnaire	• Initiated in 2005

Table 2. Health System Registries

Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
ACC ACTION Registry				
• To serve as a hospital registry that helps hospitals apply ACC/AHA clinical guideline recommendations in their facilities • To provide invaluable tools to measure care and achieve quality improvement goals	• Adverse event rates • AMI performance measures and selected quality measures and outcomes • Test measures, including medication dosing errors and risk-adjusted metrics • Compliance with ACC/AHA clinical guideline recommendations	• Select participation by health systems • Data ownership: Quality Improvement for Institutions • Cost: Cost associated with the data	• Hospital registry	• Frequency: continuously
ACC PINNACLE Registry				
• To serve as cardiology's largest outpatient quality improvement registry, capturing data on coronary artery disease, hypertension, heart failure, and atrial fibilration	• Data on coronary artery disease, hypertension, heart failure, diabetes, and atrial fibrillation • Practice, provider, and patient characteristics • Program metrics endorsed by the ACC, AHA, and the Physician Consortium for Performance Improvement	• Select participation by health systems • Data ownership: Quality Improvement for Institutions • Cost: Cost associated with the data	• Outpatient registries	• Frequency: continuously
CARES Cardiac Arrest Registry to Enhance Survival				
• To assist communities measure performance and identify how to improve cardiac arrest survival rates	• Demographics of patients • Time and location of cardiac events • System quality • Cardiac treatment • ER outcome • Hospital outcome	• Each participating hospital has access to their data and only their data • Cost: No cost	• Uses HIPAA-compliant methodology to protect confidentiality • Allows longitudinal, internal benchmarking of key performance indicators	• Frequency: continuously
Get With the Guidelines-Atrial Fibrillation				
• To assist hospital care teams in consistently providing the latest evidence-based treatment to their atrial fibrillation patients • To monitor the quality of atrial fibrillation care in the US	• Arrival and Admission Information • Demographic Data • Medical History • Diagnosis • Medications at Admission • Exam/Labs at Admission • In-Hospital Care • Discharge Information • Discharge Medications • Risk Interventions	• Data ownership: American Heart Association • Cost: Cost associated with the data	• Data submitted by health system	• Frequency: continuously
Get With the Guidelines-Heart Failure				
• To promote consistence adherence to the latest scientific treatment guidelines • To monitor the quality of heart failure care in the US	• Heart failure achievement measures • Heart failure quality measures • Heart failure reporting measures • Heart failure descriptive measures	• Data ownership: American Heart Association • Cost: Cost associated with the data	• Data submitted by health system	• Frequency: continuously

Table 2. Health System Registries				
Purpose	**Topic(s) Addressed relating to Heart Disease and Stroke Prevention**	**Sampling Frame and Data Ownership**	**Methodology**	**Timing and Frequency**
Get With the Guidelines- Resuscitation				
• To provide performance comparisons with other hospitals with regards to resuscitation • To reduce noncompliance and medical errors through data-driven peer review • To provide access to the most up-to-date research and scientific publications	• Cardiopulmonary arrest measures • Acute respiratory compromise measures • Cardiopulmonary arrest measures • Acute respiratory compromise measures • Medical emergency team	• Data ownership: American Heart Association • Cost: Cost associated with the data	• Data submitted by health system	• Frequency: continuously
Get With the Guidelines-Stroke				
• To promote quality improvements in stroke care • To serve as an in-hospital program for improving stroke care by promoting consistent adherence to the latest scientific treatment guidelines	• Stroke achievement measures • Stroke quality measures • Stroke reporting measures • Stroke data quality measures • Stroke descriptive measures	• Data ownership: American Heart Association • Cost: Cost associated with the data	• Data submitted by health system	• Frequency: continuously
The Guidelines Advantage (TGA)				
• To use data collection, analysis, and feedback to translate prevention and treatment guidelines into practice within the outpatient setting • To serve as a quality improvement program using data from electronic health records (EHRs) on adherence to evidence-based guidelines • To collaborate between American Heart Association, American Cancer Society, and American Diabetes Association	• Coronary Artery Disease Screening • Cholesterol • Cancer Screening • Hypertension Screening • High blood pressure control • Preventive Care and Screening • Ischemic Vascular Disease Screening	• Patient-level • Data ownership: American Heart Association • Cost: Cost associated with the data	• Data submitted by health system	• Frequency: continuously

Table 3: Health System Data Reporting Tools

Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
American College of Cardiology Percutaneous Coronary Intervention (PCI) Readmission Measure				
• To show how often Medicare fee-for-service (FFS) patients are readmitted to a hospital after a PCI procedure	• Medicare fee-for-service patients undergoing PCI procedures by participating hospital • Likelihood of Medicare patients being readmitted after PCI by hospital	• Medicare patients who ascribed to the following criteria: • They received a PCI during their hospital stay and were discharged in 2010 or through November 30, 2011; • They were aged 65 or over when they arrived at the hospital; • They have a record in the CathPCI Registry that meets the National Cardiovascular Data Registry quality threshold criteria and can be linked to the corresponding Medicare fee-for-service claim. • Hospitals that ascribed to the following criteria: • Submitted data for qualifying PCI procedures to the CathPCI Registry with discharges between January 1, 2010 and November 30, 2011 • Data ownership: Centers for Medicare and Medicaid Services • Cost: No cost	• National Cardiovascular Data Registry (NCDR)'s CathPCI Registry for risk adjustment and Medicare claims data to determine outcomes • Candidate variables includes two "demographic" variables (age and gender), 15 "history and risk factor" variables, five "cardiac status" variables, three "cath lab visit" variables, and four "PCI procedure" variables • The survey includes no core questions due to use of an existing data set	• Initiated in 2013 • Frequency: annually
Hospital American College of Surgeons Measures				
• To show how hospitals differ in what happens to those that undergo any of three National Quality Forum (NQF)-endorsed surgical measures: elderly surgical outcomes, colon surgical outcomes, and lower-extremity bypass surgical outcomes	• Mortality rates for elderly surgery • Mortality rates for vascular surgery	• 526 hospitals in the US • Data ownership: American College of Surgeons • Cost: No cost	• Data are collected by staff who are employed by the hospital and trained using materials developed by the American College of Surgeons • Entered into web-based platform • Eligible patient cases identified based on information found in medical charts	• Initiated in 2012 • Frequency: annually
Hospital Value-Based Purchasing (HVBP) – Acute Myocardial Infarction Scores				
• To show hospitals participating in the Hospital VBP Program and their performance rates and scores for the Clinical Process of Care acute myocardial infarction measures	• Acute care treatment for myocardial infarction • Myocardial infarction mortality rates • Quality of care	• More than 3,000 hospitals across the country are eligible to participate in Hospital VBP. The program applies to hospitals located in the 50 states and the District of Columbia and acute-care hospitals in Maryland. • Medicare Heart attack patients given fibronolytic medication within 30 minutes of arrival • Medicare Heart attack patients given PCI within 90 minutes of arrival • Data ownership: Center for Medicare and Medicaid Services • Cost: No cost	• Hospital VBP is based on data collected through the Hospital Inpatient Quality Reporting (IQR) Program. The Total Performance Score (TPS) is derived from four domains in FY 2015—Clinical Process of Care, Patient Experience of Care, Outcome, and Efficiency domains • The Clinical Process of Care domain is comprised of 12 clinical process measures (which include measures for myocardial infarction and heart failure) and accounts for 20% of a hospital's TPS • 26 core measures for 2015	• Initiated in 2013 • Frequency: annually

Table 3: Health System Data Reporting Tools				
Purpose	**Topic(s) Addressed relating to Heart Disease and Stroke Prevention**	**Sampling Frame and Data Ownership**	**Methodology**	**Timing and Frequency**
Hospital Value-Based Purchasing (HVBP) – Heart Failure Scores				
• To show hospitals participating in the Hospital VBP Program and their performance rates and scores for the Clinical Process of Care Heart Failure measures. Shows whether a Medicare patient with heart failure died within 30 days of hospitalization	• Heart failure treatment • Quality of care • Heart failure mortality	• More than 3,000 hospitals across the country are eligible to participate in Hospital VBP. The program applies to hospitals located in the 50 states and the District of Columbia and acute-care hospitals in Maryland • Medicare Heart failure patients 65 or older given discharge instructions • Data ownership: Center for Medicare and Medicaid Services • Cost: No cost	• Hospital VBP is based on data collected through the Hospital Inpatient Quality Reporting (IQR) Program. The Total Performance Score (TPS) is derived from four domains in FY 2015—Clinical Process of Care, Patient Experience of Care, Outcome, and Efficiency domains • The Clinical Process of Care domain is comprised of 12 clinical process measures (which include measures for myocardial infarction and heart failure) and accounts for 20% of a hospital's TPS • 26 core measures for 2015	• Initiated in 2013 • Frequency: Annually
Hospital Value-based Purchasing – Total Performance Score				
• To show what acute-care hospitals have earned incentive awards for the quality of care they deliver to Medicare beneficiaries	• Provider performance • Quality of care • Acute care treatment	• More than 3,000 hospitals across the country are eligible to participate in Hospital VBP. The program applies to hospitals located in the 50 states and the District of Columbia and acute-care hospitals in Maryland • Data ownership: Centers for Medicare and Medicaid Services • Cost: No cost	• Hospital VBP is based on data collected through the Hospital Inpatient Quality Reporting (IQR) Program. The Total Performance Score (TPS) is derived from four domains in FY 2015—Clinical Process of Care, Patient Experience of Care, Outcome, and Efficiency domains • The Clinical Process of Care domain is comprised of 12 clinical process measures (which include measures for myocardial infarction and heart failure) and accounts for 20% of a hospital's TPS • 26 core measures for 2015	• Initiated in 2013 • Frequency: annually
Medicare Heart Attack and Heart Failure Payments – National, State, and Hospital				
• To show national, state, and hospital data for payments associated with a 30-day episode of care for heart attack patients • To show differences in payments for AMI patients over a 30-day period that are influenced by hospital care decisions	• Transparency of healthcare costs/access to myocardial infarction and heart failure care • Quality of care for heart attack and heart failure patients	• Hospitals participating in Medicare. Medicare beneficiaries 65 years or older who were enrolled in Original Medicare (traditional fee-for-service Medicare) for the entire 12 months before their hospitalization for heart attack, as well as the 30 days after admission • Data ownership: Center for Medicare and Medicaid Services • Cost: No cost	• Calculates hospital-level, Risk-Standardized Payments (RSPs) • The measure summarizes payments made by Medicare patients or on behalf of Medicare patients for healthcare services starting on the first day of a hospitalization for heart attack through the next 30 days • Hospitals with fewer than 25 eligible cases are placed into a separate category that indicates the hospital did not have enough cases to reliably calculate the hospital's RSP	• Initiated in 2012 • Frequency: annually

Table 3: Health System Data Reporting Tools				
Purpose	**Topic(s) Addressed relating to Heart Disease and Stroke Prevention**	**Sampling Frame and Data Ownership**	**Methodology**	**Timing and Frequency**
Medicare Hospital Spending per Claim (Beneficiary)				
• To show whether Medicare spends more, less or about the same per Medicare patient treated in a specific hospital, compared to how much Medicare spends per patient nationally	• Medicare spending by hospital per condition	• All Medicare Part A and Part B claims paid during the period from 3 days prior to a hospital admission through 30 days after discharge • Data ownership: Center for Medicare and Medicaid Services • Cost: No cost	• A hospital's MSPB Measure is calculated as the hospital's average MSPB Amount divided by the median MSPB Amount across all hospitals	• Initiated in 2012 • Frequency: annually
Medicare Hospital Spending Per Patient – National, State, and Hospital				
• To show whether Medicare spends more, less or about the same per Medicare patient treated in a specific hospital, compared to how much Medicare spends per patient nationally. The state database displays average measures by state, and the hospital database shows average measures by hospital	• Transparency of care/ healthcare costs	• Hospitals participating in Medicare • Cost: No cost	• Measure assesses Medicare Part A and Part B payments for services provided to a Medicare beneficiary during a spending-per-beneficiary episode that spans from three days prior to an inpatient hospital admission through 30 days after discharge	• Initiated in 2012 • Frequency: annually
Patient Survey Hospital Consumer Assessment of Healthcare Providers and Systems - National and State.				
• To show the national and state averages for the Hospital Consumer Assessment of Healthcare Provider and Systems (HCAHPS) survey categories	• Patient's perspective on the healthcare they have received from a particular provider	• Adult patients across medical conditions between 48 hours and six weeks after discharge • Data ownership: Center for Medicare and Medicaid Services • Cost: No cost	• There are four approved modes of administration for the survey: • Mail Only • Telephone Only • Mixed (mail followed by telephone) • Active Interactive Voice Response (IVR). • 32 questions	• Initiated in 2005 • Frequency: quarterly
Readmissions Complications and Deaths – National, State, and Hospital				
• To show national, state, and hospital-level data for 30-day death and readmission measures and the Agency for Healthcare Research and Quality (AHRQ) measures of serious complications. Shows how hospitals' performance on the readmission and death (mortality) measures compare to the U.S. national rate	• Readmission rates for heart attack, heart failure, and stroke patients • Death rates for heart attack, heart failure, and stroke patients	• Hospitalizations for Medicare beneficiaries aged 65 or older who were enrolled in Original Medicare (traditional fee-for-service Medicare) for the entire 12 months prior to their hospital admission (and for readmissions, for 30 days after their original admission) • Data ownership: Center for Medicare and Medicaid Services • Cost: No cost	• CMS calculates hospital-specific 30-day unplanned readmission and mortality rates using Medicare claims and eligibility information • The 30-day death (mortality) measures are estimates of deaths from any cause within 30 days of a hospital admission, for patients hospitalized with one of several primary diagnoses. Deaths can be counted in the measures regardless of whether the patient dies while still in the hospital or after discharge • The survey contains 8 core measures: 5 of which are condition-specific, 2 of which are procedure-specific, 1 of which is hospital-wide	• Initiated in 2005 • Frequency: annually

Table 3: Health System Data Reporting Tools				
Purpose	**Topic(s) Addressed relating to Heart Disease and Stroke Prevention**	**Sampling Frame and Data Ownership**	**Methodology**	**Timing and Frequency**
Timely and Effective Care – National, State, and Hospital				
• To show national, state, and hospital-level data for measures of heart attack care, heart failure care, pneumonia care, surgical care, emergency department care, preventive care, children's asthma care, and stroke care	• Evidence-based treatments for myocardial infarction, heart failure, and stroke • How quickly hospitals treat emergent patients • How effectively hospitals provide preventive services	• Adult patients treated at hospitals participating in the Inpatient Quality Reporting and Outpatient Quality Reporting programs for whom the recommended treatments would be appropriate, including Medicare patients, Medicare managed care patients, and non-Medicare patients • • Data ownership: Center for Medicare and Medicaid Services • Cost: No cost	• Most of the measures of timely and effective care come from the data that hospitals get from medical records of their eligible patients, following standards for abstracting and reporting the information • Data submissions include auditing procedures and edit checks to assess whether data submitted are consistent with CMS's defined specifications • CMS validates the data submitted to provide assurance that the hospital, or its designated agent, can accurately abstract patient medical records and accurately submit data	• Initiated in 2005 • Frequency: annually

Table 4: Health System Program and Performance Measures

Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
Medicaid Adult Health Care Quality Measurement Program				
• To provide healthcare quality measures for Medicaid eligible adults	• Prevention and treatment of hypertension and CVD • Effective communication and coordination of hypertension and CVD care • Affordability of hypertension CVD care	• Approximately 75 million Medicaid enrollees. • Data ownership: Center for Medicare and Medicaid Services • Cost: No cost	• States collect data on Core Set measures for enrollees of all delivery system types, including managed care and fee-for-service • Means, medians, and 25th and 75th percentiles are calculated from NCQA's HEDIS database for measures included in the 2013 Medicaid Adult Core Set • Data include performance measures submitted by health plans for HEDIS 2011 to 2013 based on services delivered in calendar years 2010 through 2012, respectively. HEDIS data are reported to NCQA by product line (commercial, Medicaid, and Medicare) and lines of business	• Initiated in 2012 • Frequency: annually
Medicare Advantage - Star Ratings				
• To combine scores for the types of services each plan offers	• Hypertension and CVD control • Hypertension and CVD treatment and prevention	• Medicare Advantage plans in place prior to the beginning of the calendar year • Data ownership: Center for Medicare and Medicaid Services • Cost: No cost	• Gathered from several different sources, including HEDIS and the Consumer Assessment of Healthcare Providers • In some cases it is based on member surveys, information from clinicians, or information from plans • In other cases, it is based on results from Medicare's regular monitoring activities	• Initiated in 2009 • Frequency: annually
Medicare Shared Savings Program / Affordable Care Organizations (ACOs)				
• To collect and report data based on 33 measures on physician quality for eligibility in Medicare Shared Savings and meaningful use	• Medicare expenditures	• Eligible providers, hospitals, and suppliers who have created, or participated in, an ACO • Data ownership: Center for Medicare and Medicaid Services • Cost: No cost	• ACOs report clinical quality measures through a web interface	• Initiated in 2013 • Frequency: annually

Table 4: Health System Program and Performance Measures

Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
Million Hearts Clinical Quality Dashboard				
• To monitor heart attack and stroke prevention efforts from quality measures reporting initiatives to provide a comprehensive geographical view of progress on the ABCS – Aspirin for people at risk, Blood pressure control, Cholesterol management, and Smoking cessation	• Hypertension and CVD control • Hypertension and CVD treatment and prevention • Blood pressure screenings	• Patients 18 to 85 years of age with diagnosed hypertension whose blood pressure (BP) was less than 140/90 (adequate control) at the time of the last reading • Data ownership: Centers for Disease Control and Prevention • Cost: No cost	Dashboard contains data from the following sources: • US Department of Health and Human Serves (HHS). Health Resources and Services Administration (HRSA). Bureau of Primary Health Care (BPHC) • The National Committee for Quality Assurance Healthcare Effectiveness Data and Information Set (HEDIS) – Commercial HMO and PPO, Medicaid PPO • The Centers for Medicare & Medicaid Services (CMS) Physician Quality Reporting System (PQRS – Registry-based Reporting) • The Centers for Medicare & Medicaid Services (CMS) Physician Quality Reporting System (PQRS – Group Reporting Option) • The Centers for Medicare & Medicaid Services Physician Quality Reporting System	• Initiated in 2011 • Frequency: annually
National Committee for Quality Assurance (NCQA): Healthcare Effectiveness Data and Information Set (HEDIS)				
• To provide a set of standardized performance measures designed to give purchasers and consumers the information they need to compare the performance of managed healthcare plans	• Hypertension and CVD control • Hypertension and CVD treatment and prevention	• National level • 39 states require commercial and/or Medicaid healthcare plans to report HEDIS data to National Committee for Quality Assurance (NCQA) • Data ownership: National Committee for Quality Assurance • Cost: Cost associated with the data	• NCQA collects HEDIS data directly from Health Plan Organizations and Preferred Provider Organizations for multiple purposes via the Healthcare Organization Questionnaire and HEDIS non-survey data through the Interactive Data Submission System (IDSS) • All HEDIS data collected by NCQA are maintained in a central database with strict controls to protect confidentiality	• Initiated in 1991 • Frequency: continuously
Office of the National Coordinator (ONC) for Health Information Technology Certified Health IT List				
• To provide a comprehensive listing of Complete Electronic Health Records and EHR Modules that have been tested and certified under the ONC HIT Certification Program	• Hypertension technologies • Access to innovative modes of hypertension care	• EHR technologies that have been certified under the ONC HIT Program • Data ownership: Office of the National Coordinator for Health IT • Cost: No cost	• Developers and Vendors wishing to certify a Complete EHR or EHR Module(s) first contacts an Accredited Testing Laboratory to have their product tested • Once their product is determined to satisfy all applicable certification criteria adopted by the Secretary, the Developer or Vendor then contacts an ONC-Authorized Certification Body to have their product certified	• Initiated in 2011 • Frequency: continuously

	Table 5: National, State, and Local Policy Tracking			
Purpose	**Topic(s) Addressed relating to Heart Disease and Stroke Prevention**	**Sampling Frame and Data Ownership**	**Methodology**	**Timing and Frequency**
Association of State and Territorial Health Officials				
• To display state legislation impacting public health and state health agencies	• Health care reform • Professional licensing • Prescription drug policy	• 50 State legislatures • Data ownership: Association of State and Territorial Health Officials • Cost: No cost	• Activity at the state level is tracked through an electronic 50-state legislative tracking system, news from publications and other professional organizations, and communication with ASTHO members	• Frequency: continuously
Bloomberg Law - Health				
• To display federal and state legislation and regulations impacting public health	• All matters related to public health	• U.S. Congress • 50 State legislatures • Data Ownership: Bloomberg Media • Cost: Cost associated with the data	• Legislation at the federal and state level is tracked and updated	• Initiated in 2009 • Frequency: continuously
CQ Roll Call				
• To display federal legislation on issues impacting public health and federal health agencies	• All matters related to public health	• US Congress • 50 State Legislatures • Data ownership: Data owned by the Economist Group • Cost: Cost associated with the data	• Legislation at the federal and state level is tracked, updated and analyzed. Alerts are disseminated when user-selected legislation changes or progresses through its respective legislature	• Initiated in 1945 • Frequency: continuously
Education Commission of the States: State Policy Database				
• To show state legislation on school health and nutrition	• School health and nutrition curriculum • Physical education curriculum • School nutrition environment • School health clinics	• 50 State legislatures • Data ownership: Education Commission of the State • Cost: No cost	• Enacted legislation on public education at the state level is tracked, categorized, and analyzed by topic, year, and state legislature	• Initiated in 2000 • Frequency: continuously
GovTrack-US Congress				
• To track federal legislation on issues impacting public health and federal health agencies	• All matters related to public health	• Federal Government • Data ownership: U.S. Government • Cost: no cost	• Federal legislation and voting records are tracked and analyzed. Alerts are disseminated when user-selected legislation changes or progresses through its respective legislature	• Frequency: continuously
Law Atlas: The Policy Surveillance Portal				
• To collect, measure, and display state laws	• Air quality • Water quality • Health insurance • Public health	• State legislatures • Data ownership: Robert Wood Johnson Foundation • Cost: No cost	• Legal analysts conduct searches using WestlawNext, Lexis Advance, HeinOnline, National Conference of State Legislatures website, and state-specific legislature websites • A master sheet is created that summarizes the relevant statute or regulation, includes the most recent statutory history for each statute and regulation, and adds the effective date for that version of the law	• Frequency: continuously

Table 5: National, State, and Local Policy Tracking				
Purpose	**Topic(s) Addressed relating to Heart Disease and Stroke Prevention**	**Sampling Frame and Data Ownership**	**Methodology**	**Timing and Frequency**
LexisNexis StateNet				
• To track legislation at the federal and state level	• All matters related to public health	• 50 State Legislatures • Data ownership: LexisNexis • Cost: Cost associated with the data	• Tracks legislation and regulations in all 50 state legislatures and categorizes them by issue area and congressional term	• Initiated in 1977 • Frequency: continuously
National Council of State Legislatures				
• To provide access to pending and enacted state legislation through 50-state searchable databases covering a variety of issues	• Emergency care • Healthcare appropriations • Food policy • School health • Prescription drugs • Health Professional licensing	• 50 State Legislatures • Data ownership: National Council of State Legislature • Cost: No cost	• Tracks legislation and regulations in all 50 state legislatures and categorizes them by issue area and congressional term	• Initiated in 1975 • Frequency: continuously
StateScape				
• To show pending and enacted state and federal legislation on all matters related to public health	• All matters related to public health	• 50 State Legislatures • Data ownership: Thomson Reuters • Cost: Cost associated with the data	• Tracks public health legislation and regulations at the federal and state level and categorizes them by issue area and congressional term	• Initiated in 1991 • Frequency: continuously
University of Connecticut Rudd Center for Food Policy and Obesity				
• To show pending and enacted state and federal legislation on food/nutrition, physical activity, and anti-obesity policy	• Food policy • BMI Screening • Built environment • Menu labeling • Obesity • Physical activity • School health • Beverage taxes	• 50 State legislatures • Data ownership: Rudd Center • Cost: No cost	• Tracks legislation related to food policy, nutrition, and obesity at the state and federal levels and categorizes them by issue area and congressional term	• Initiated in 2010 • Frequency: continuously
WestLaw				
• To show pending and enacted state and federal legislation on all matters related to public health	• All matters related to public health	• 50 State Legislatures • Data ownership: Thomson Reuters • Cost: Cost associated with the data	• Tracks school health legislation and regulations at the federal and state level and categorizes them by issue area and congressional term	• Initiated in the 1970s • Frequency: continuously

Table 6. Media Tracking				
Purpose	**Topic(s) Addressed relating to Heart Disease and Stroke Prevention**	**Sampling Frame and Data Ownership**	**Methodology**	**Timing and Frequency**
Adobe SiteCatalyst (previously known as Omniture)				
• To report real-time web analytics	• Identifies high-value web visitors • Illustrates paths of traffic to and from the site • Identifies metrics for online marketing campaigns in order to provide benchmarking analysis and measures of success	• Websites of client interest • Data ownership: client • Cost: Cost associated with the data	• Information collected automatically	• Client dependent; data available in real time
Cision				
• To provide media monitoring and analytic reports for client TV, radio, social, and online media	• Measures collected are client dependent	• Consumers of client's TV, radio, social, and online media • Data ownership: client • Cost: Cost associated with the data	• Data collected from a variety of media sources • Information collected automatically	• Client dependent; data available in real time
Facebook Insights				
• To provide Facebook content managers with metrics of interest, including user growth, user demographics, and user engagement	• Client dependent.	• Client Facebook page viewers. • Data ownership: client • Cost: No cost	• Data is gathered from all visitors and traffic to client Facebook page. • Information collected automatically	• Client dependent; data available in real time
Google Analytics				
• To collect data on the behavior patterns of website visitors	• Number of website visitors • Number of repeat visitors to a website • Referring traffic sources • Pages viewed • Geographic location of visitors • Custom reporting	• Client website • Data ownership: client • Cost: No cost	• All visitors to client website • Information collected automatically	• Client dependent; data available in real time
HootSuite				
• To provide comprehensive social media management using a variety of analytic tools and customizable reports • To displays metrics such as volume, visibility, and perception of social initiatives	• Dependent on needs of client	• Data ownership: client • Cost: No cost	• Assesses data available from Facebook insights, Google analytics, Twitter profile stats, Ow.ly click stats, Google+ pages analytics, and client analytics	• Client dependent; data available in real time
Keyhole				
• To contain simple search function to track social campaigns through a keyword, hashtag or URL • To create interactive live dashboard and reporting system	• Tracks posts, users, reach, impressions, shares, key influencers and demographics, and more	• Data ownership: client • Cost: No cost	• Tracks Twitter, Instagram and Facebook	• Option of real-time tracking or historical reports • Client dependent
Pinterest				
• To provide data regarding the information website visitors pin from client website and how users are engaging with that information	• Number of people pinning from client website. • View of client pins. • Traffic to client content. • Metrics collected from designated timeframe.	• Client website. • Data ownership: client • Cost: No cost	• All visitors to client website. • Information collected automatically	• Client dependent; data available in real time

Table 6. Media Tracking				
Purpose	**Topic(s) Addressed relating to Heart Disease and Stroke Prevention**	**Sampling Frame and Data Ownership**	**Methodology**	**Timing and Frequency**
Radian6				
• To gather and monitors metrics set on social networks, websites and mobile devices	• Measures designated social campaign metrics and sentiment behind user generated content	• Client social networks, websites and mobile devices • Data ownership: client • Cost: Cost associated with the data	• All visitors to client social networks, websites and mobile devices • Information collected automatically	• Client dependent; data available in real time
Scarborough				
• To conduct national surveys to capture local consumer trends. • To contain insights on consumer attitudes and consumer segments	• Wide range of topics covered. • MARS Consumer Health Study contains data on consumer healthcare initiatives	• Information collected from over 120 local markets across the United States • Data ownership: client • Cost: Cost associated with the data	• Information collected through phone interviews, survey booklets, television diaries and internet surveys.	• Updated market data released twice a year • Client dependent
Simply Measured				
• To provide social media monitoring and analytics	• Client dependent	• Data ownership: client • Data gathered from multiple channels, including Twitter, Facebook, Google+, Instagram, YouTube, Vine, LinkedIn, and Tumblr • Cost: Cost associated with the data	• Process information collected automatically	• Client dependent • Can create automatic, scheduled reports
Sysomos				
• To provide social media monitoring and analytics	• Measures collected are client dependent	• Consumers of client's social media • Data ownership: client • Cost: Cost associated with the data	• All client social media users • Information collected automatically	• Client dependent; data available in real time
YouTube Analytics				
• To provide metrics on video traffic and viewers behavior	• Viewership • Subscribers • Watch-time or time watched • Audience retention • Traffic sources • Annotations • Community actions • Demographics and geographics	• Client YouTube video viewers • Data ownership: client • Cost: No cost	• All visitors to client YouTube video channel • Information collected automatically from website	• Client dependent; data available in real time

Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
Table 7. Data Visualization, Interactive, and Geographic Information Systems Platforms				
American FactFinder- Decennial Census, American Community Survey, Economic Census, Population Estimates (U.S. Census Bureau)				
• To provide access to national, state and local data via the search function or predefined data sets	• Numerous surveys, including communities, housing, economics, government, and more	• Provides access to data about the United States, Puerto Rico and the Island Areas • Cost: No cost	• The Census Bureau conducts nearly one hundred surveys and censuses every year	• Varies by survey; could be conducted quarterly, monthly or annually
American Heart Association: Heart Disease and Stroke Statistical Update				
• To provide the most up-to-date information on the core health behaviors and health factors that define cardiovascular health	• Smoking/Tobacco Use • Physical Inactivity • Nutrition • Obesity • Health Factors and Other Risk Factors • Quality of Care • Medical Procedures • Economic Cost of Cardiovascular Disease	• Data ownership: American Heart Association • Cost: Unknown	• Compilation of the most up-to-date statistics on heart disease and stroke	• Frequency: annually
CDC Division for Heart Disease and Stroke Prevention: Data Trends and Maps				
• To search for and view health indicators related to heart disease and stroke prevention	• Various health indicators	• Information available for the nation, a region, a state, or other locations • Cost: No cost	• Multiple data sources, including BRFSS, CARES, Coverdell, HCUP, Medicare, NAMCS/NHAMCS, NHANES, NHIS, NVSS	• Frequency: continuously
Chronic Disease Data Warehouse				
• To provide researchers with Medicare and Medicaid beneficiary, claims, and assessment data linked by beneficiary across the continuum of care	• Medicare, Medicaid, Assessments, and Part D Prescription Drug Event data • Data available upon request	• CCW data files may be requested for any of the predefined chronic condition cohorts, or users may request a customized cohort(s) specific to research focus areas • Cost: No cost	• The CCW data are linked by a unique, unidentifiable beneficiary key, which allows researchers to analyze information across the continuum of care	• Medicare files for years 1999 - 2013 • Part D Prescription Drug Event data for years 2006 - 2013 • Medicaid files for years 1999 - 2011
Chronic Disease GIS Exchange				
• To provide a forum for sharing specific examples, ideas and techniques for using GIS to document geographic disparities, inform policy and program development, and build partnerships	• The data sources and GIS techniques are used to produce the maps regarding the burden of heart disease, stroke, and other chronic diseases • Gallery of maps produced on heart disease and stroke, among other chronic conditions	• Invites visitors to share maps that address chronic diseases • Cost: No cost	• Open exchange forum	• Frequency: continuously

Table 7. Data Visualization, Interactive, and Geographic Information Systems Platforms

Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
Chronic Disease Indicators				
• To enable public health professionals and policymakers to retrieve uniformly defined state and selected metropolitan-level data for chronic diseases and risk factors that have a substantial impact on public health	• Wide range of indicators for the surveillance of chronic diseases, conditions, and risk factors at the state level and for selected large metropolitan areas • Mortality from total cardiovascular disease • Mortality from cerebrovascular disease (stroke) • Mortality from coronary heart disease • Mortality from diseases of the heart • Mortality from heart failure • High cholesterol prevalence among adults aged >18 • Prevalence of high cholesterol among adults aged >18 with diagnosed diabetes • Prevalence of high blood pressure among adults aged >18 with diagnosed diabetes • Pre-pregnancy hypertension • Awareness of high blood pressure among adults aged >18 years • Awareness of high blood pressure among women aged 18-44 years • Taking medicine for high blood pressure control among adults >18 years with high blood pressure • Cholesterol screening among adults aged >18 years • Hospitalization for acute myocardial infarction • Hospitalization for heart failure among Medicare-eligible persons age >65 years • Hospitalization for stroke	• Developed by consensus among CDC, the Council of State and Territorial Epidemiologists (CSTE), and the National Association of Chronic Disease Directors (NACDD) • Cost: No cost	• A total of 201 individual measures are included for the 124 indicators, many of which overlap multiple chronic disease topic areas or are specific to a certain sex or age group	• Frequency: continuously
Community Commons				
• To bring change-makers together to connect with thought leaders and peers, share stories and strategies, and use the latest technology and tools to make lasting change	• Wide range of topics, including economy, education, environment, equity, food and health • Gallery of maps produced on heart disease and stroke, among other chronic conditions • Heart disease mortality • Heart attack mortality • Heart disease prevalence • Comprehensive Stroke Centers & Primary Stroke Centers and Stroke Mortality Rates by County • Registration required to data access	• Over 1,200 maps already saved and shared • Cost: No cost	• Open exchange forum to make and share maps with system collaborators	• Frequency: continuously
Community Health Status Indicators				
• To improve the ability of stakeholders to 1) assess community health status and identify disparities; 2) promote a shared understanding of the wide range of factors that are associated with health; and 3) mobilize multi-sector partnerships to work collaboratively to improve population health	• Data contains key indicators of health outcomes, such as health care access and quality, health behaviors, social factors and the physical environment • Coronary heart disease deaths	• Produces health profiles for all 3,143 counties in the United States • Cost: No cost	• Provides peer county groupings that allow the health status of individual counties to be compared to those of "peer" counties across the U.S	• Last update includes the CHSI 2015 indicator values for each county benchmarked against similar "peer counties", all U.S. counties and Healthy People 2020 targets

Table 7. Data Visualization, Interactive, and Geographic Information Systems Platforms				
Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
FASTTATS				
• To provide quick access to statistics on more than 100 topics of public health importance	• Diseases and conditions • Family life • Health status and risk factors • Hypertension, • Heart disease • Cholesterol	• National level • Cost: No cost	• N/A	• N/A
Health Resources and Services Administration: Area Health Resource Files				
• To provide a comprehensive set of data offering a broad range of health resources and socioeconomic indicators which impact demand for health care	• Health Care Professionals • Hospitals and Healthcare Facilities • Census, Population Data, and Environment	• County-level database assembled from over 50 sources • Data ownership: US Department of Health and Human Services • Cost: No cost	• Draws from an extensive county-level database assembled annually from over 50 sources	• Frequency: annually
Institute for Health Metrics and Evaluation (IHME) Global Burden of Disease (GBD)				
• To provide policymakers, researchers, donors, and other decision-makers with the most timely and up-to-date picture of population health to inform critical decisions • To enable decision-makers to compare the effects of different diseases that kill people prematurely and cause ill health	• All-cause mortality • Deaths by cause • Years of life lost • Years lived with disability • Disability-adjusted life years by country, age, and sex	• The GBD 2013 protocol outlines the key components of the study, including the roles and responsibilities of participating individuals, the decision-making processes, and the deliverables • Cost: No cost	• Includes a Core Analytic Team, a GBD Scientific Council, a GBD Management Team, and a robust network of GBD Experts	• Team produces annual updates to its estimates • Latest update made in Fall 2014 with GBD 2013 data
Interactive Atlas of Heart Disease and Stroke				
• To provide county-level information on maps for heart disease and stroke, along with maps of social environmental conditions and health services for the entire United States or for a chosen state or territory	• Heart disease deaths, hospitalizations, hospital discharge status • Coronary heart disease deaths, hospitalizations, hospital discharge status • Acute myocardial infarction deaths, hospitalizations, hospital discharge status • Cardiac dysrhythmia deaths, hospitalizations, hospital discharge status • Heart failure deaths, hospitalizations, hospital discharge status • Hypertension deaths, hospitalizations, hospital discharge status • All stroke deaths, hospitalizations, hospital discharge status • Ischemic stroke deaths, hospitalizations, hospital discharge status • Hemorrhagic stroke deaths, hospitalizations, hospital discharge status	• County-level maps • Cost: No cost	• Mortality data drawn from National Vital Statistics System. Bridged-Race Postcensal Population Estimates (Vintage 2009) from National Center for Health Statistics	• Frequency: continuously

Table 7. Data Visualization, Interactive, and Geographic Information Systems Platforms

Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
Policy Link Community Mapping				
• To provides overview of community mapping, with an emphasis on how mapping is used to support equitable development	• Socio-economic conditions, development opportunities, and neighborhood change	• Data derived from community mapping efforts • Cost: Unknown	• Community builds mapping collaborative surround identified issue	• Frequency: continuously
The National Heart, Lung, and Blood Institute The Morbidity & Mortality: Chart Book on Cardiovascular, Lung, and Blood Diseases				
• To provide data on the size and trends of morbidity and mortality from the cardiovascular, lung, and blood diseases	• National prevalence, hospitalizations, and mortality statistics; some additional information by state or country • Risk factors estimates and the economic costs of these diseases	• Data from NHES, NHANES, NHDS, the annual National Ambulatory Medical Care Survey, and the National Hospital Ambulatory Care Survey • Data ownership: National Heart, Lung, and Blood Institute • Cost: No cost	• Data compiled by the National Heart, Lung, and Blood Institute	• Frequency: biennially
World Health Organization Global Health Observatory (GHO)				
• To provide easy access to country data and statistics with a focus on comparable estimates • To provide access to WHO's analyses to monitor global, regional and country situation and trends	• Mortality and global health estimates • Health systems • Public health and environment • Health Equity Monitor	• WHO whenever possible will provide Member States the opportunity review and comment on data and estimates as part of country consultations • Cost: No cost	• Many of these datasets represent the best estimates of WHO using methodologies for specific indicators that aim for comparability across countries and time; they are updated as more recent or revised data become available, or when there are changes to the methodology being used	• As available • Other resources within the portal include World Health Statistics and Global Health Estimates
World Health Organization Global Infobase				
• To collect, store and display information on chronic diseases and their risk factors for all WHO member states	• BMI / Overweight / Obesity • Blood Pressure • Cholesterol • Diabetes • Physical Inactivity • Stroke	• Interested parties can easily access and contribute to the data within the Infobase • Survey data varies by topic • Cost: No cost	• Varies according to survey	• Frequency: continuously

Table 8. Sodium in the Food Supply: Sales and Nutrient Composition

Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
Food and Drug Administration (FDA) Total Diet Study (TDS)				
• To determine levels of various contaminants and nutrients in foods • To provide a unique aspect of the TDS that foods are prepared as they would be consumed (table-ready) prior to analysis, so the analytical results provide the basis for realistic estimates of the dietary intake of these analytes	• Dietary intakes of those analytes by the U.S. population can be estimated	• The food consumption amounts for each TDS food have been compiled for the total US population and 14 age/sex subgroups in four geographic regions of the country (West, North Central, South, and Northeast) • Numerous units within FDA participate in the operation of the TDS • Cost: Unknown	• Samples of food purchased throughout the U.S., preparing the foods as they would be consumed (table-ready), and analyzing the foods to measure the levels of selected contaminants and nutrients • Dietary intakes of these analytes were calculated by multiplying the levels found in TDS foods by the average consumption amounts for each food • The number of different foods sampled in the TDS has increased from 82 food items when the study was initiated in the early 1960s to about 280 foods in the current program	• Study duration: mid-1991 to the present
Gladson, LLC Nutrition Database				
• To provide product images, product content and related services for the US consumer packaged goods industry with a database supporting research and e-commerce applications such as online shopping and nutrition programs	• Full nutrition facts panel, ingredients, and warnings, along with high-resolution images	• Cost: Cost associated with the data	• Includes more than hundreds of thousands of consumer packaged food products, capturing over 150 attributes per product	• Products are added and updated each month.
Guiding Stars				
• To rate the nutritional quality of food based on consumer research, not influenced by price, brand or manufacturer trade groups • To use information from the Nutrition Facts Panel and the ingredients list, foods are rated and receive a score based on the assignment of credits and debits	• The amount of essential vitamins, minerals, fiber and whole grains versus saturated fat, trans fat, cholesterol, added sodium and added sugars	• Found in supermarkets, in food service settings, in corporate cafeterias, college dining halls, school cafeterias, hospitals and as part of innovative health and wellness programs • Cost: No cost	• A patented algorithm based on a food's nutrient density per 100 calories determines the Guiding Stars 0, 1, 2, 3 rating • Rated foods are marked with easy-to-follow tags indicating 0, 1, 2, or 3 stars: • One Guiding Star indicates good nutritional value. • Two Guiding Stars indicate better nutritional value. • Three Guiding Stars indicate the best nutritional value. • Over 100,000 rated foods	• Algorithm reviewed regularly to make sure it's up-to-date with dietary and nutrient guidelines
Label Insights				
• To provide consumer facing product data insight exchange for CPG manufacturers and retailers	• Nutrient and Ingredient information; FDA regulated attributes, GS! Attributes, Additives, and Allergens	• Cost: Cost associated with the data	• Over 10,000 attributes	• Frequency: continuously

Table 8. Sodium in the Food Supply: Sales and Nutrient Composition

Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
MenuStat (NY City Department of Health)				
• To provide nutrition data collected from the largest restaurant chains in the country, identified by U.S. sales (Nation's Restaurant News)	• Menu item name; serving size; servings per item; calories; total fat; saturated fat; trans fat; cholesterol; sodium; potassium; carbohydrates; fiber; sugar; and protein	• Nutritional information across national restaurant chains • Built by the New York City Department of Health and Mental Hygiene • Cost: No cost	• In 2012, nutrition data were collected from the Top 100 chain restaurants with publicly available nutrition data (66 restaurants) • Each menu item in is coded into a mutually exclusive food or beverage category • The same data collection and data entry protocol was used in all years, with one exception: beginning in 2013, all variations of beverages (e.g. flavor, milk type, sweetener, etc.) were entered • There are 100,000+ individual menu items • Approximately 90% of the menu items have calories listed but the amount of available nutrition data varies	• Currently includes data from 2012, 2013 and 2014. In January of each year, data is collected where available.
Mintel Corp Menu Insights: Food Service Market				
• To conduct market research and market analysis; researches provide competitive intelligence and product intelligence	• Price • Menu item • Ingredients • Flavors • Preparation	• Tracks trends in chain restaurants, beverage-centric outlets and independent chef establishments • Cost: Cost associated with the data	• Menus from 350 chain restaurants and 200 independent restaurants	• Tracks trends on a daily basis
Neilsen ScanTrack				
• To measure what consumers and shoppers buy and how they behave; examines key business trends by product, category or market, using retailer scanner-based sales and causal information gathered weekly from hundreds of retail outlets	• Needs-based segmentations, socio-demographic segmentations, customer value segmentations and purchase-based segmentations	• More than 250,000 household panelists across 25 countries • Cost: Cost associated with the data	• Electronic meters that measure audience engagement, in-home scanners record purchases from each shopping trip	• Weekly scanner-based sales and causal information. • Annual surveys
Nuval®				
• To provide comprehensive nutritional information with one number	• Fact panels, package labels, nutrition reports • protein, calcium, vitamins, sugar, sodium, and cholesterol	• Scores pertain to persons >2 yrs. Age • Scores found on shelf price tags and store signage • Cost: No cost	• Summarize comprehensive nutritional information in one simple number between 1 and 100. The higher the score, the better the nutrition • Uses the Overall Nutritional Quality Index (ONQI®), a patent-pending algorithm which converts complex nutritional information into a single, easy-to-use score • Considers 30-plus nutrients and nutrition factors	• Algorithm is reviewed every two years to determine appropriateness for revisions

Table 8. Sodium in the Food Supply: Sales and Nutrient Composition

Purpose	Topic(s) Addressed relating to Heart Disease and Stroke Prevention	Sampling Frame and Data Ownership	Methodology	Timing and Frequency
USDA Food and Nutrient Database for Dietary Studies (FNDDS)				
• To provide the nutrient values for foods and beverages reported in What We Eat in America, the dietary intake component of the National Health and Nutrition Examination Survey • To make it possible for researchers to conduct enhanced analysis of dietary intakes	• Nutrient profiles for specific foods and beverages as well as their associated portions and recipes • Nutrients/Food Components: Protein (g) Carbohydrate (g) Fat, total (g) Alcohol (g) Sugars, total (g) Dietary fiber, total (g) Water (moisture) (g) Saturated fatty acids, total (g) Monounsaturated fatty acids, total (g) Polyunsaturated fatty acids, total (g) Cholesterol (mg) Individual fatty acids	• American Adults • Cost: No cost	• Consists of up to 12 separate but linked data files. • There are 65 nutrient and food components included in FNDDS	• Dietary Studies 2011-2012
USDA National Nutrient Database for Standard Reference (SR)				
• To provide database with search feature by food item, group, or list to find the nutrient information	• Individual food reports of all the foods in the database--includes scientific name, refuse, and nutrient content	• Data can be download from web in several different formats • Cost: No cost	• Database contains 8,618 different foods	• Currently houses SR 11-SR 27