



Disseminating Vital Statistics

Workshop on Vital Statistics for North and Central Asian Countries
Bishkek, Kyrgyzstan, 7-11 October 2019



Session objectives

By the end of the session, participants will be able to:

- Learn how to identify and communicate to their audience
- Understand the different types of analytical reports
- Identify a single overriding communication objective



Identifying Your Audience and Introduction to Data Communication



Learning Objectives

- Become familiar with a communications plan process
- Understand and be able to identify three major types of stakeholders in health communication
- Learn to adapt communications to audience type



Communications Plan Process

- Who are the stakeholders (audience) of the communication?
- What is the objective of the communication?
- What is the communication channel?
- How will the communication be disseminated?

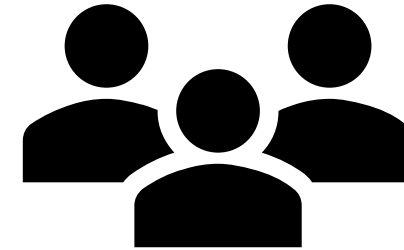


Stakeholders for Communication

Policymakers/
government
officials/CSO*

Researchers

Public



*CSO: Civil Society Organization



Stakeholders for Communication

Policymakers/
government
officials/CSO*

Technical proficiency:
Medium

Researchers

Technical proficiency:
High

Public

Technical proficiency:
Low

*CSO: Civil Society Organization



Stakeholders for Communication

Policymakers/
government
officials/CSO*

Technical proficiency:
Medium

- Use as evidence for legal change or need
- Use as evidence for resource allocation
- Use to support public health actions

Researchers

Technical proficiency:
High

- Generate complex analyses of health issues
- Lecture/teach health concepts
- Write research articles

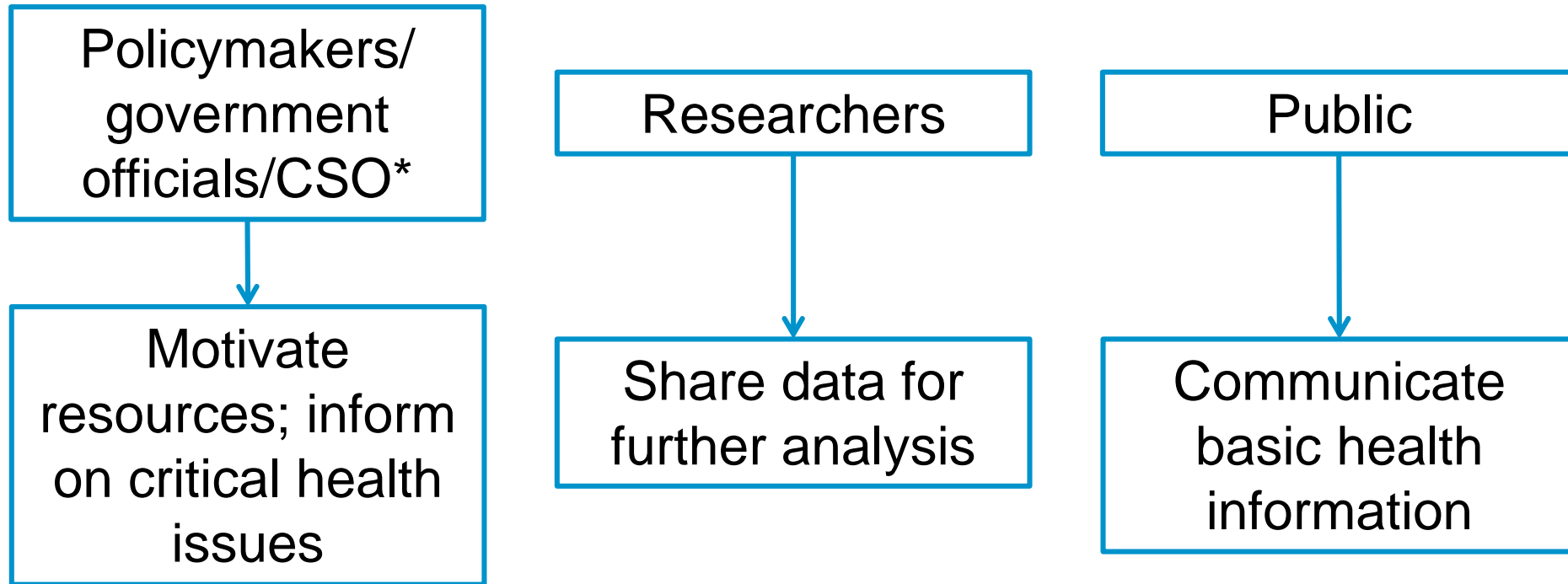
Public

Technical proficiency:
Low

- Use as guide for health decisions
- Use for general awareness of issues



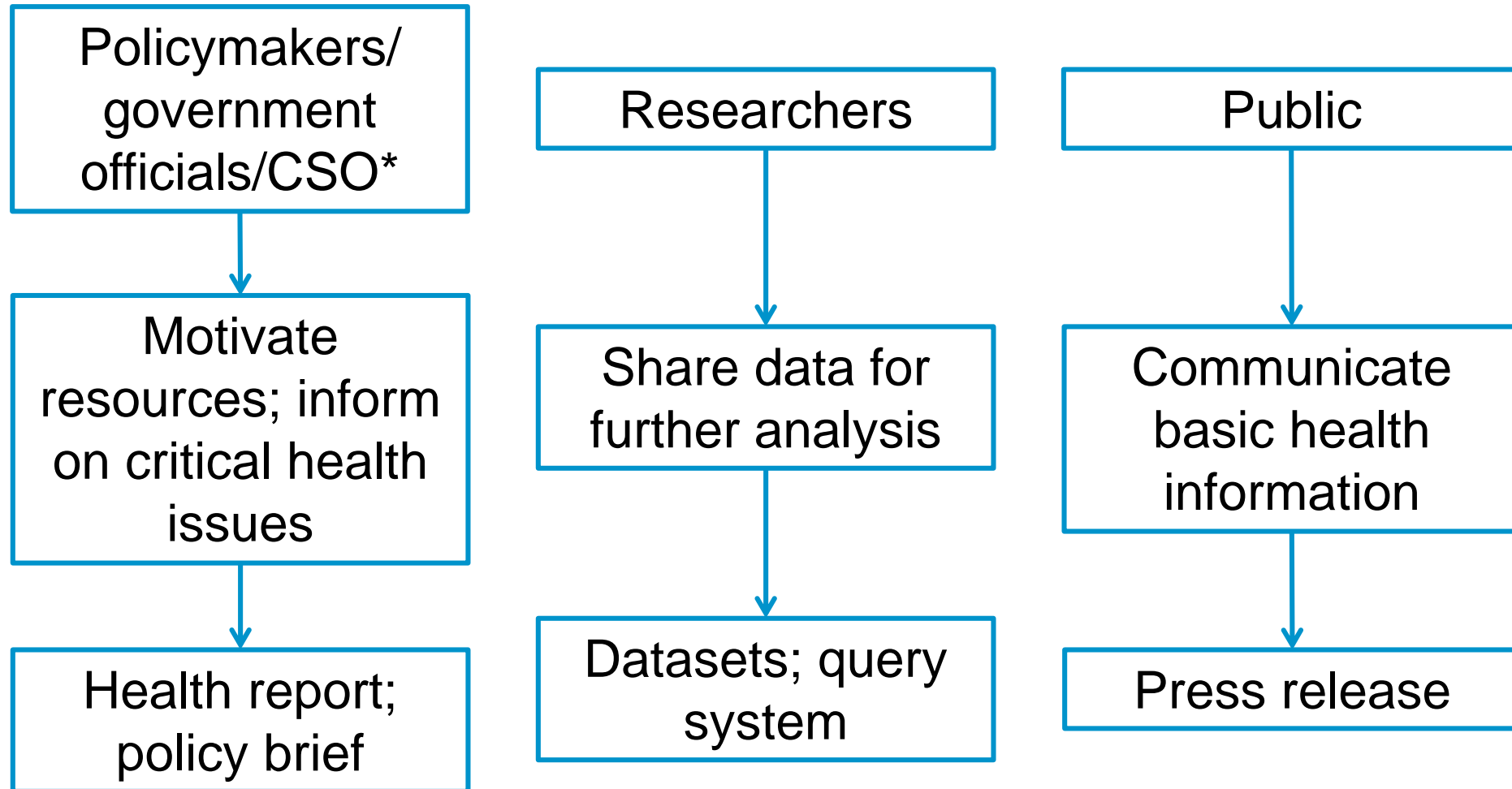
Communication Objectives



*CSO: Civil Society Organization



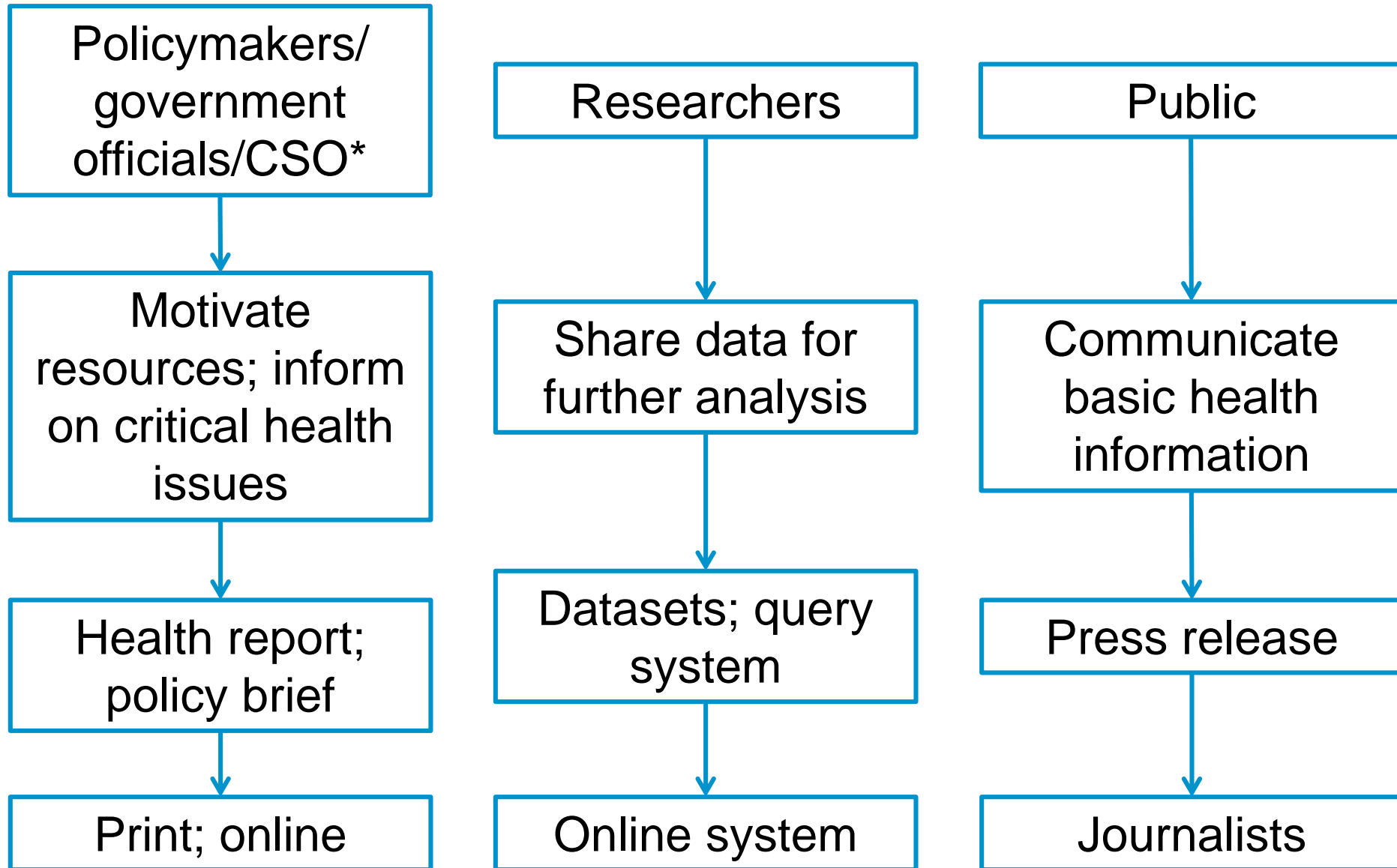
Communication Channels



*CSO: Civil Society Organization



Dissemination of Communication



*CSO: Civil Society Organization



Analytical Reports



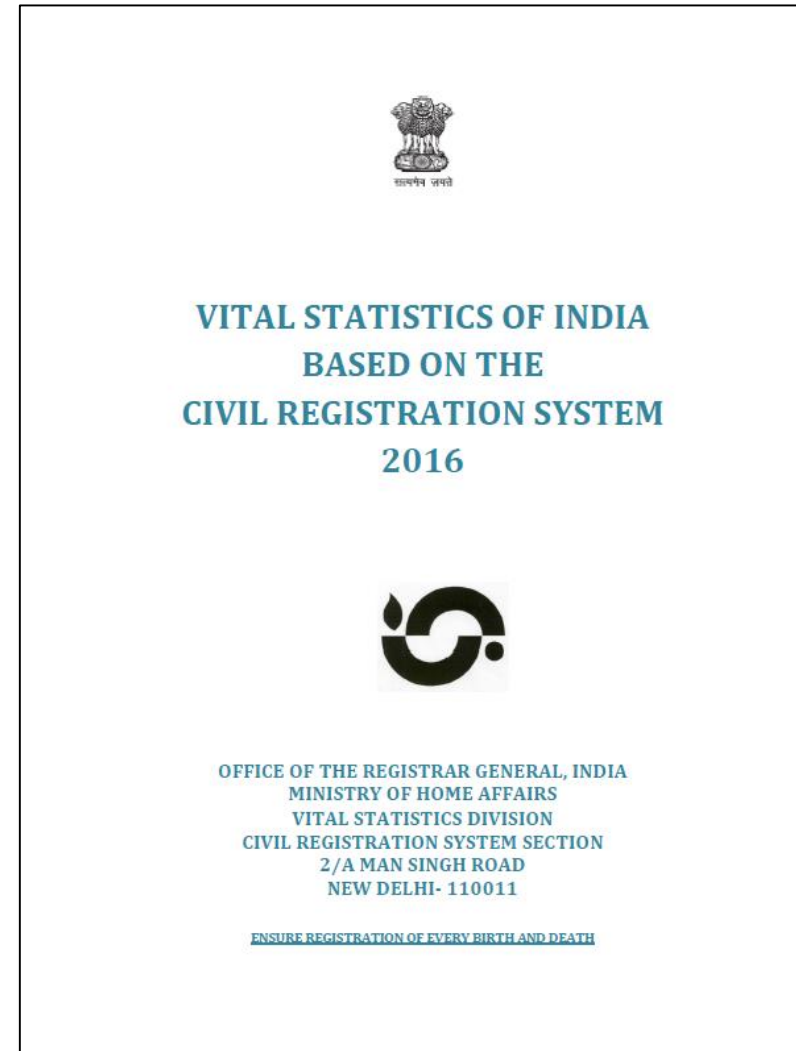
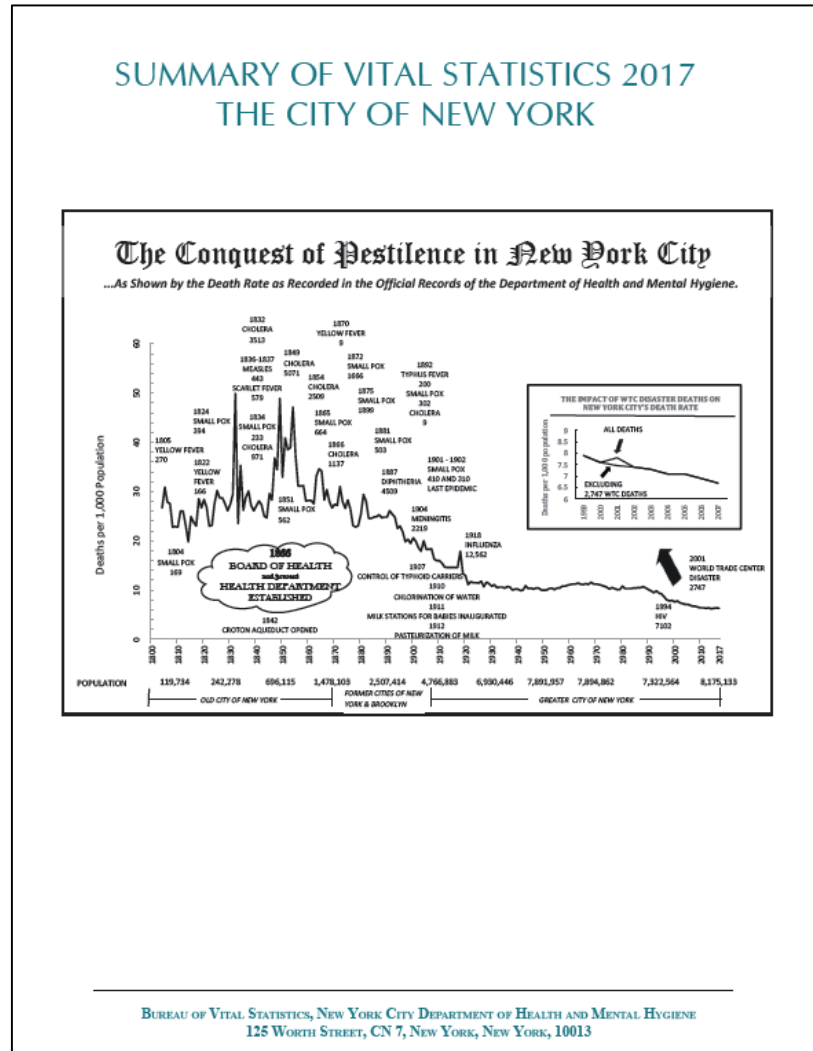


Types of Analytical Reports

- Annual reports
- Short reports
- Special topics
- Bulletins/updates
- Policy briefs



Annual Reports



Sources: New York City Department of Health and Mental Hygiene; Office of Registrar General India



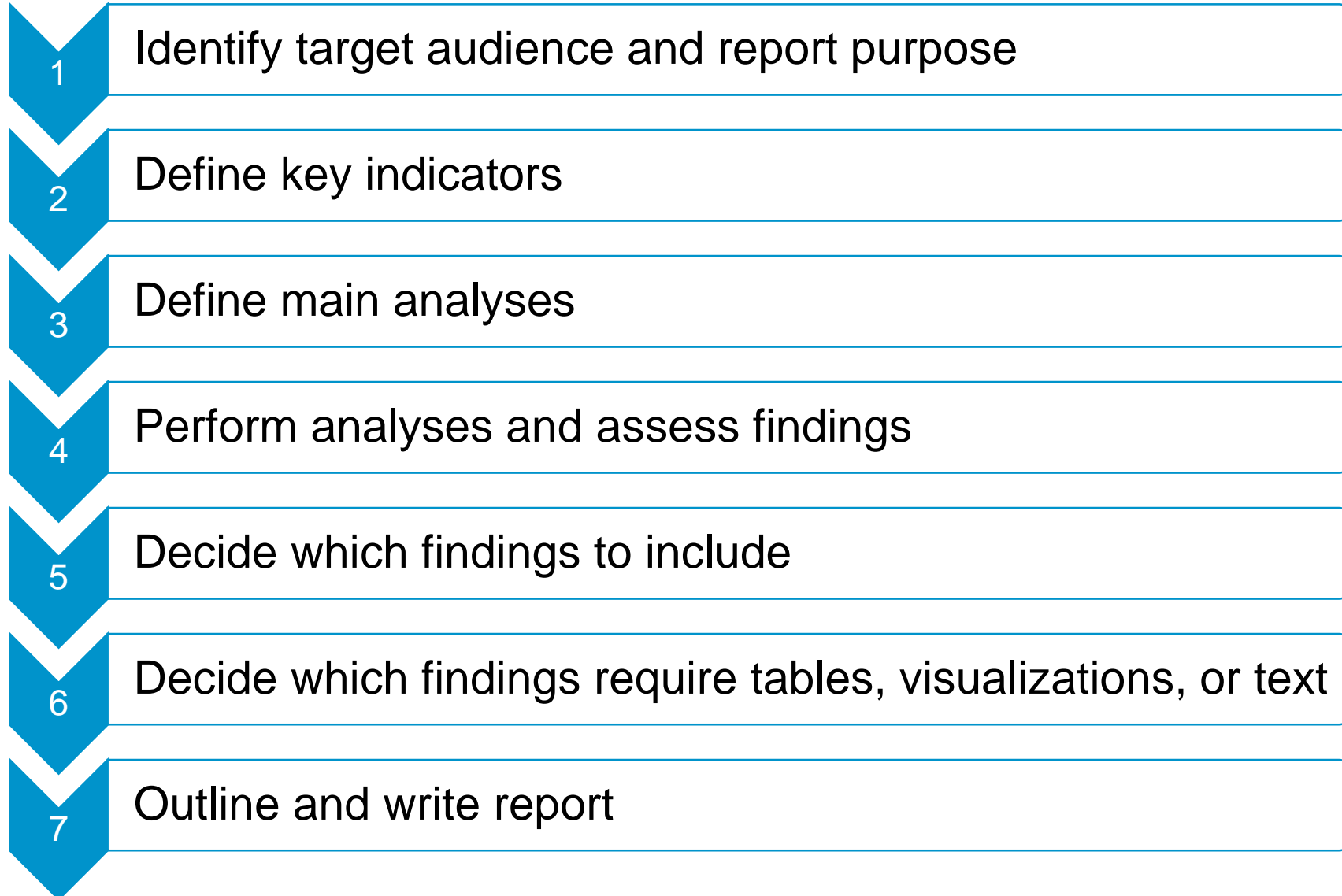


What to Include in an Annual Report

- Key indicators for the year
- Comparisons by age and sex
- Trends over time
- Geographic patterns
- Comparisons between key social and economic groups
- Information on limitations of the data



Steps to Creating an Annual Report





Other Types of Reports



Special Topics

- More in-depth reports focusing on one specific topic/health issue using vital statistics data
- Includes
 - More detailed analysis
 - Concrete conclusions and recommendations



ANALYSIS OF THE CAUSES OF MORTALITY IN PERU, 1986-2015



EL PERÚ PRIMERO



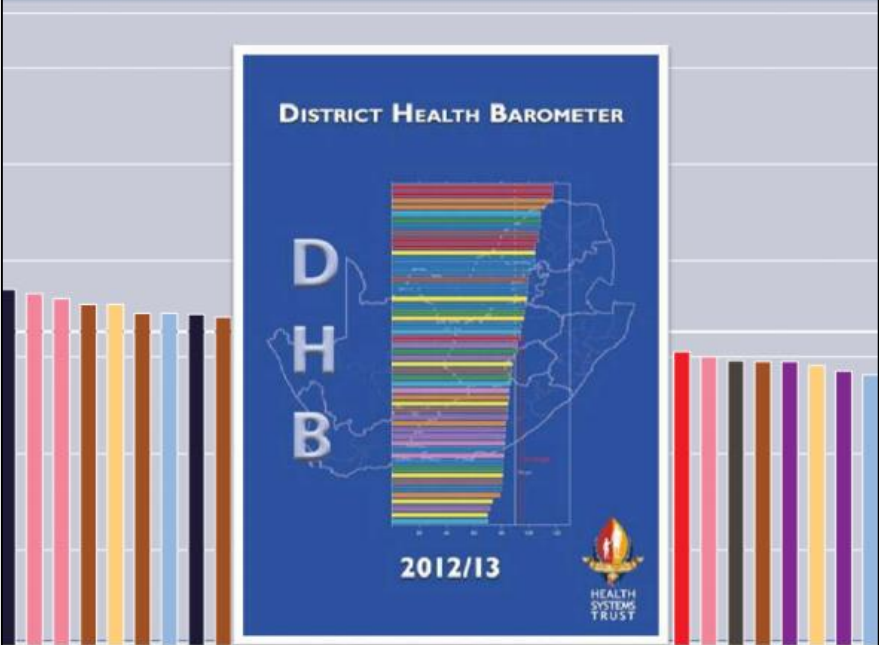
DHB SUPPLEMENT SERIES 1



District Health Barometer 2012/13



**FOCUS ON
MATERNAL MORTALITY**





Short Reports

- Provides information from vital statistics in a concise format
- Not comprehensive
- Avoids the formality of an annual report
- Less than 10 pages



Mortality in the United States, 2014

Sherry L. Murphy, B.S.; Kenneth D. Kochanek, M.A.; Jiaquan Xu, M.D.; and Elizabeth Arias, Ph.D.

Key findings

Data from the National Vital Statistics System, Mortality

- Life expectancy for the U.S. population in 2014 was unchanged from 2013 at 78.8 years.
- The age-adjusted death rate decreased 1.0% to 724.6 deaths per 100,000 standard population in 2014 from 731.9 in 2013.
- The 10 leading causes of death in 2014 remained the same as in 2013. Age-adjusted death rates significantly decreased for 5 leading causes and significantly increased for 4 leading causes.
- The infant mortality rate decreased 2.3% to a historic low of 582.1 infant deaths per 100,000 live births. The 10 leading causes of infant death in 2014 remained the same as in 2013.

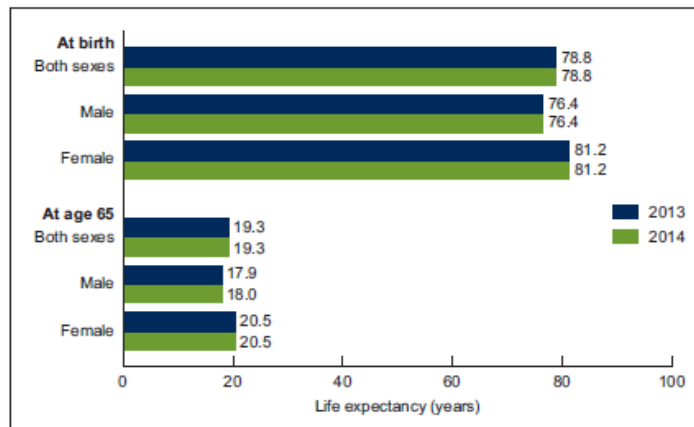
This report presents 2014 U.S. final mortality data on deaths and death rates by demographic and medical characteristics. These data provide information on mortality patterns among U.S. residents by such variables as sex, race and ethnicity, and cause of death. Information on mortality patterns is key to understanding changes in the health and well-being of the U.S. population. Life expectancy estimates, age-adjusted death rates by race and ethnicity and sex, the 10 leading causes of death, and the 10 leading causes of infant death were analyzed by comparing 2014 final data with 2013 final data (1).

Keywords: life expectancy • leading cause • death rates • National Vital Statistics System

How long can we expect to live?

Life expectancy at birth represents the average number of years that a group of infants would live if the group was to experience, throughout life, the age-specific death rates present in the year of birth. In 2014, life expectancy at birth was 78.8 years for the total U.S. population—81.2 years for females and

Figure 1. Life expectancy at selected ages, by sex: United States, 2013 and 2014



SOURCE: CDC/NCHS, National Vital Statistics System, Mortality.



Policy Brief

- Short (2-4 pages)
- Presents evidence of a problem and evaluates policy solutions
- Usually provides recommendations for policy change based on data analysis and review of scientific literature
- Targeted at policymakers



Why Develop a Policy Brief?

**Policy-makers have little time,
and often do not have advanced technical skills.**

- Translates data and scientific information into understandable format
- Engages stakeholders who can act or advocate for changes needed to address health problems
- Communicates the importance of policy development or changes to decision makers



Knowledge for action: The power to make a difference!

SAfAIDS Policy Brief: Malawi

Preventing Unsafe Abortions among Young People in Malawi

The Role of Effective Policies





Digital Applications for Data Access



Learning Objectives

By the end of the session, participants will:

- Be familiar with options to make vital statistics data available on the internet
- Understand the pros and cons of each option

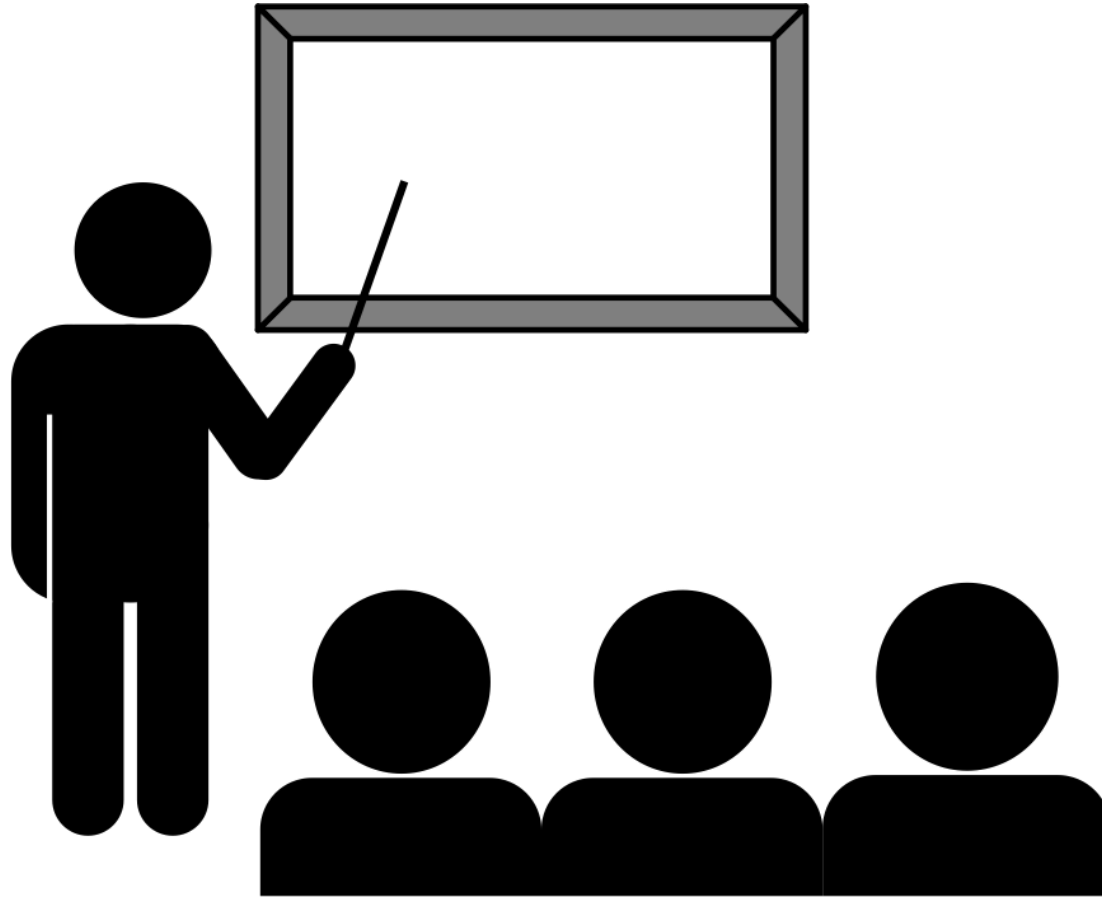


Detailed Tables and Query Systems



Audience

- Researchers
- Government officials





Detailed Tables

- Pre-selected tables
- Provide aggregated birth and death data by
 - Time
 - Demographic variables
- UN recommendations: *Principles and Recommendations for a Vital Statistics System*
- Countries should develop their own list



UN Recommendations - Births

B. Minimal list of tabulations *

LIVE BIRTHS (LB)

LB-1. Live births by place of occurrence and sex of child	108
LB-2. Live births by place of occurrence and place of usual residence of mother	109
LB-3. Live births by place of registration, month of occurrence and month of registration	110
LB-4. Live births by month, place of occurrence and place of usual residence of mother	111
LB-5. Live births by age, place of usual residence and marital status of mother	112
LB-6. Live births by age of father	
LB-7. Live births by place of usual residence, age and educational attainment of mother	113
LB-8. Live births by educational attainment and age of mother and live-birth order	114
LB-9. Live births by place of usual residence and age of mother, sex of child and live-birth order	115
LB-10. Live births by live-birth order and interval between last and previous live-births to mother	116
LB-11. Live births by ethnic and/or national group and place of usual residence and age of mother	117
LB-12. Live births by place of usual residence and age of mother and legitimacy status	118
LB-13. Live births by place of occurrence, site of delivery and attendant at birth	119
LB-14. Live births by site of delivery, attendant at birth and birth weight	120
LB-15. Live births by birth weight and place of usual residence and educational attainment of mother	121
LB-16. Live births by gestational age and birth weight	122
LB-17. Live births by birth weight, place of usual residence of mother and month in which prenatal care began	123
LB-18. Live births by age and place of usual residence of mother and month in which prenatal care began	124
LB-19. Live births by live-birth order, place of usual residence of mother and month in which prenatal care began	125



UN Recommendations - Deaths

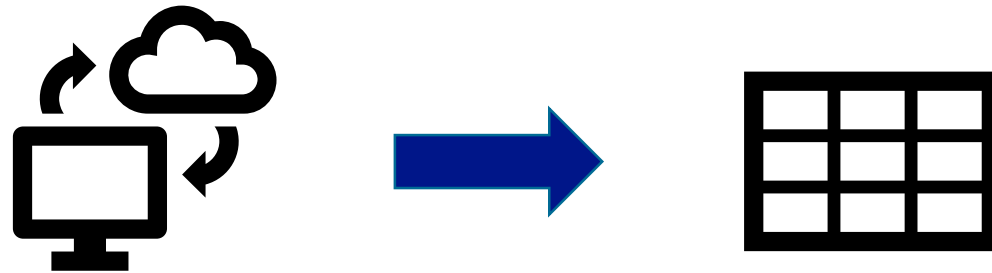
Deaths (DE)

DE-1. Deaths by place of usual residence and sex of decedent	126
DE-2. Deaths by place of occurrence and place of usual residence and sex of decedent	127
DE-3. Deaths by month and place of occurrence and place of usual residence of decedent	128
DE-4. Deaths by place of registration, month of occurrence and month of registration	129
DE-5. Deaths by place of occurrence and site of occurrence	130
DE-6. Deaths by place of usual residence, age and sex of decedent	131
DE-7. Deaths by age, sex, place of usual residence and marital status of decedent	132
DE-8. Deaths by place of usual residence, age, sex and educational attainment of decedent	133
DE-9. Deaths by sex, cause of death, place of usual residence and age of decedent	134
DE-10. Deaths by month of occurrence and cause of death	
DE-11. Deaths by place of occurrence, sex of decedent and type of certification	135
DE-12. Maternal deaths by cause of death and age of woman	136
DE-13. Deaths by age and type of usual activity of decedent	



Make Tables Available for Download

- Tables can be created in Word or Excel
 - Excel: provide **.csv** files
 - Word: PDF with hyperlinks





Pros and Cons

Pros	Cons
More detailed data	Tables may not meet the needs of users
Quality of data analyses is controlled	Data in pre-selected tables could be cumbersome to use
Low-tech solution	



Query Systems

- Web interface where user **selects** what information they need
- Based on user selection, data tables and/or charts are **provided by website**
- Available analyses can be predefined



Example – New York City

Step 1: Selection

EpiQuery Mortality Module

To begin, select a TOPIC and YEAR of interest and click on the SUBMIT button.

TOPIC	YEAR
Mortality - regardless of cause	2014
Mortality - by leading causes	2013
Mortality - by select causes	2012
Premature mortality - regardless of cause	2011
Premature mortality - by leading causes	2010

[Click here for more information about this dataset](#)

Source: <https://a816-healthpsi.nyc.gov/epiquery/VS/index.html>



Example – New York City

Step 2: Preliminary Results and additional analyses

Additional analyses

Mortality
New York City, 2014

Number of Deaths Reported	Death Rate per 1,000 Pop.	Age-Adjusted Death Rate per 1,000 Pop.
53,034	6.2	5.8

Results

Show Results by

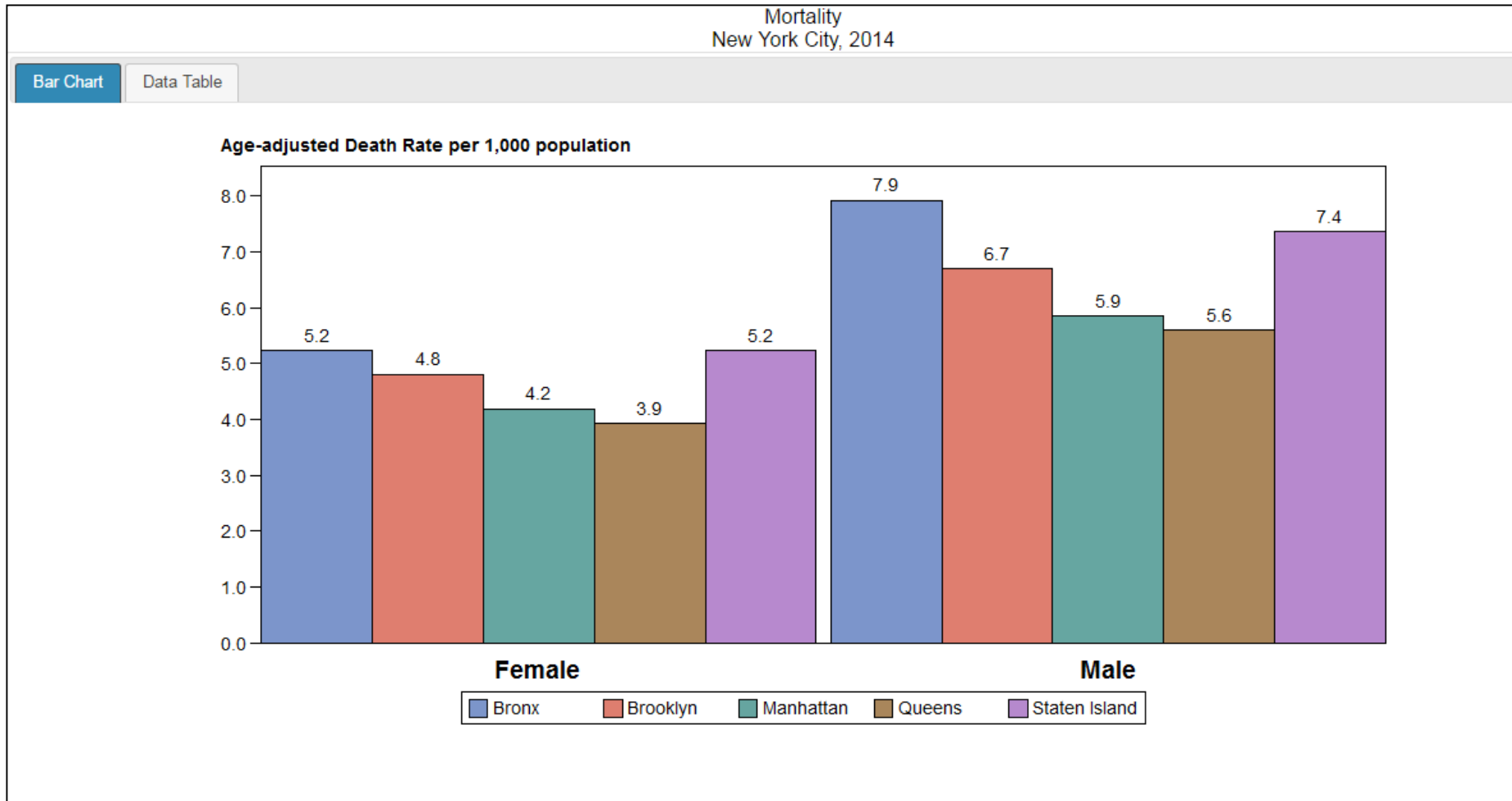
- Citywide Trend
- Demographic Subgroups
 - Sex
 - Borough
- United Hospital Fund (UHF) Neighborhood of Residence
- Community District of Residence

SUBMIT



Example – New York City

Step 3: Final results by age and location - Chart





How to Make Available

- **Step 1:** Determine what data you want to make available
 - Who are the potential users?
 - What are their needs?
- **Step 2:** Work with vendor to help create/adapt software package



Pros and Cons

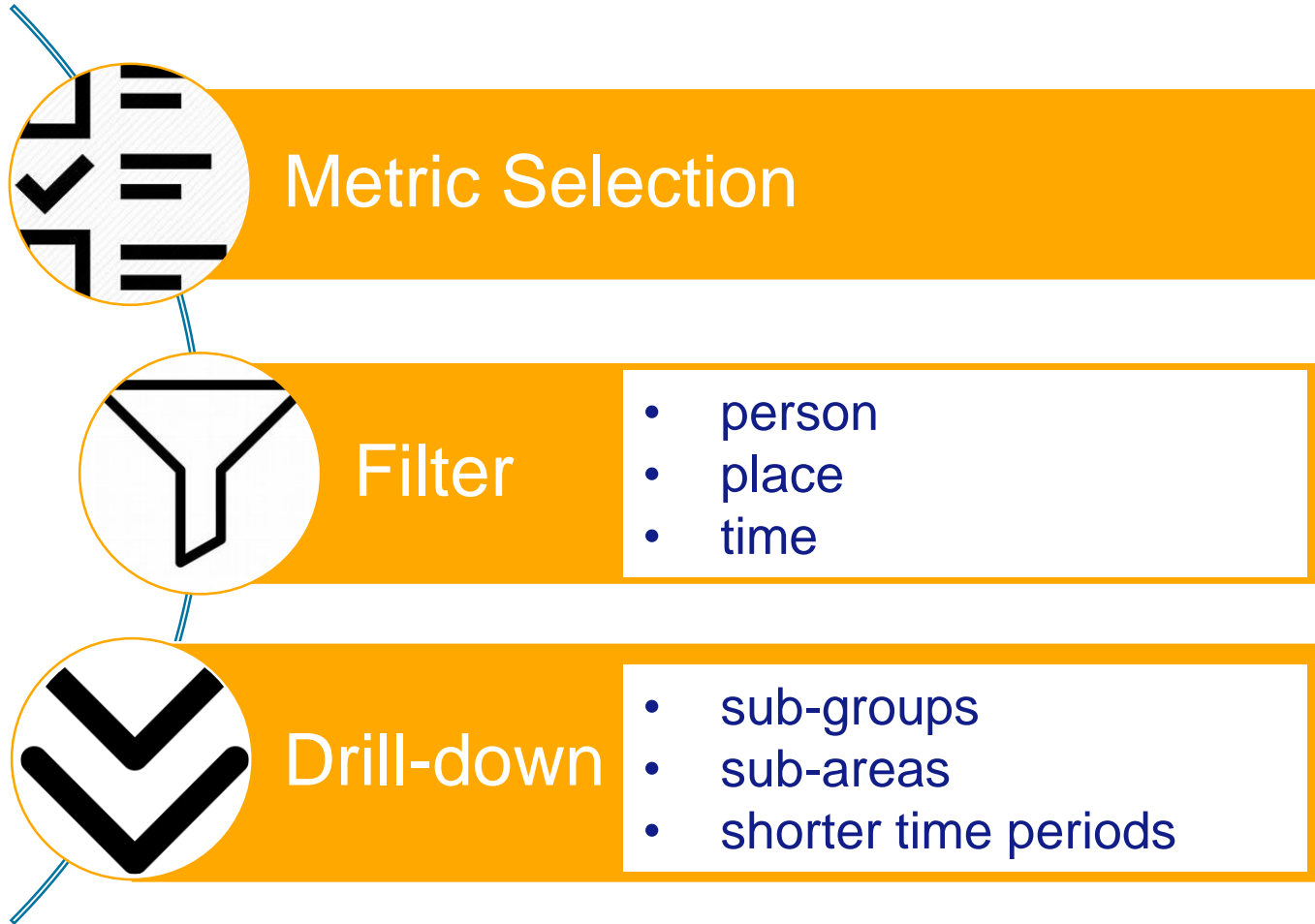
Pros	Cons
Data users can determine what data they need	More expensive and difficult to implement
Easier to use than line-level data for users who just need some basic statistics	Systems that are slow or cumbersome will discourage use
Analyses can be quality controlled	Still need to determine what information to make available



Portals and Dashboards



User controls in portals





Main causes of death

- 1 Select the demographic variables in the orange box in the following order: gender, age, and Federation Unit (FU)
- 2 Select from the three available metrics for the blue box graphs: mortality rate per 100,000 population, number of deaths, or proportional mortality (percentage).
- 3 Click **Update** to update the views.

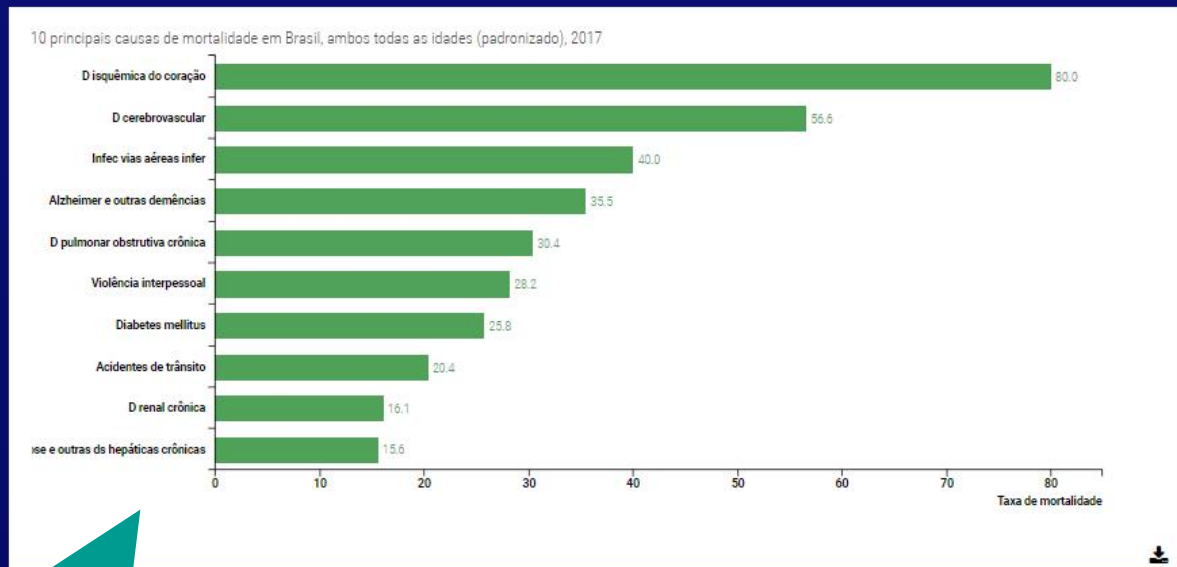
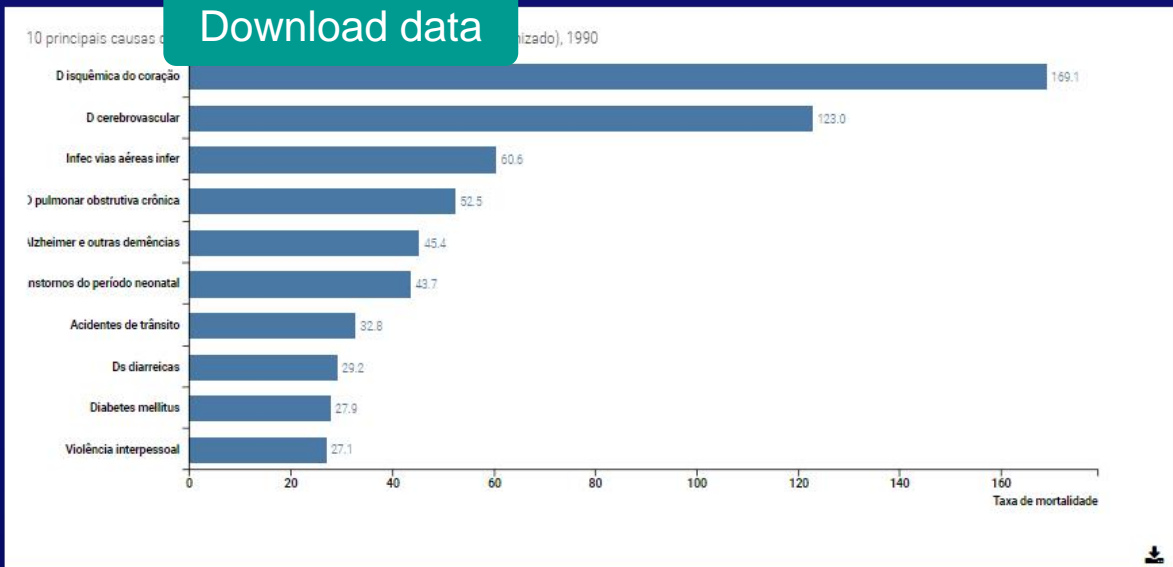
Sex: → Age: → Federation Unit: → Displayed Measure:

Download

Multiple filter combinations

Different Measures

Download data



Data-driven elements



Exercise

- Discuss in groups (5 – 10 minutes)
 - Would you want to make vital statistics data available on the web in your country?
 - How would you do this?
 - Who would be your main audience?
 - What are the key challenges?
 - What would be the main advantages?



Communicating to Lay Audiences



Learning Objectives

- Understand audience expectations and biases as well as overcoming them
- Understand the components of the basic communication model
- Understand elements of lay-friendly data communication



Three Key Audience Expectations

1. Why should I believe the information?

2. What is the rationale for recommendations?

3. What actions should I take?



Audience Tendencies

Difficulty understanding statistics

80% vs 0.08
0.08 per 1,000
Risk, prevalence, rate

Resistance to persuasion

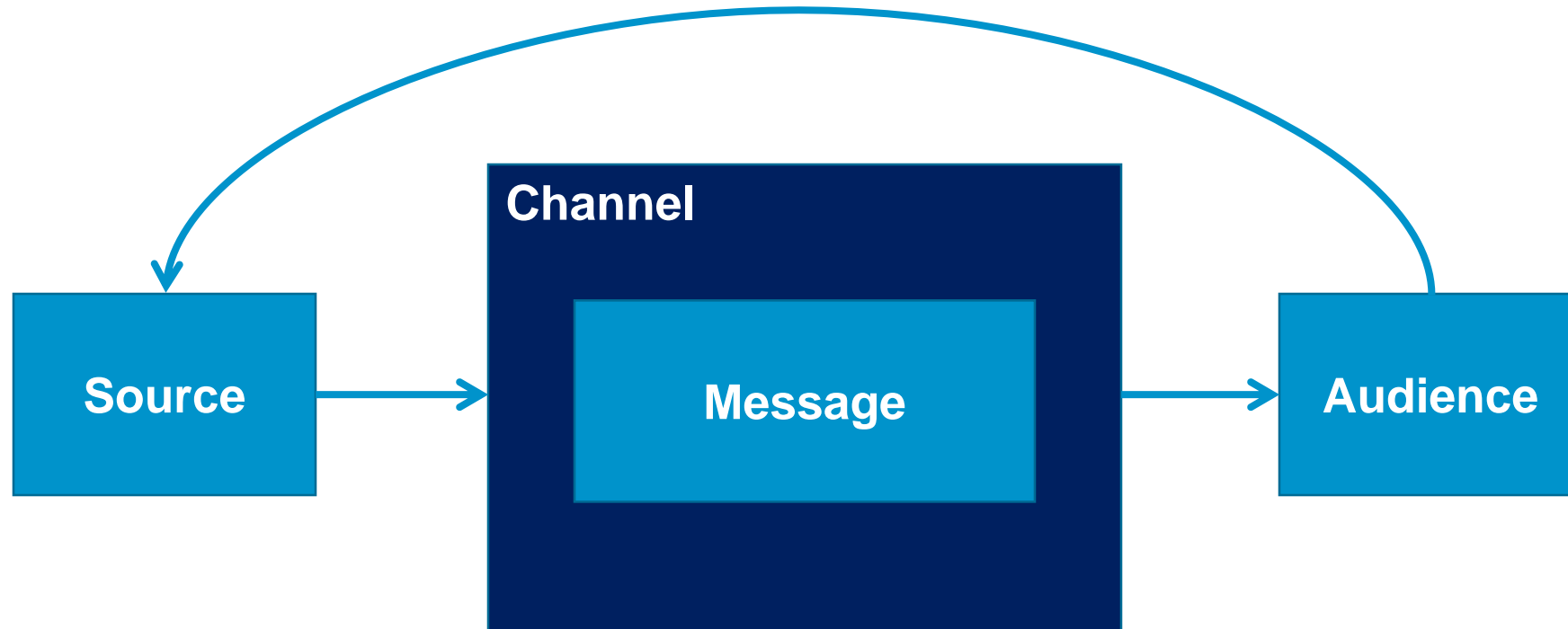
Defensive processing
Prior information
Inherent bias

Propensity for scanning materials

Personal interest
Conclusions



Basic Communication Model





Overcoming Tendencies and Biases

- Use **brief** and **concise** language
- Present data **transparently** and **completely**
- Address mistaken lay audience beliefs directly
 - Address uncertainty
- Ensure **usability**
 - Highlight boxes and summaries
 - Use familiar types of data like frequencies and round numbers
 - Provide contextual information
- Prepare a **single overriding communication objective (SOCO)**



Single Overriding Communication Objective (SOCO)

- Single overriding communication objective (SOCO) for each communication product
 - Clear, concise, and simple talking points about health data
 - Overall, what is the main message?
- Developed by Centers for Disease Control and Prevention to inform communications process
- Four questions to be considered prior to forming a communication



Single Overriding Communication Objective (SOCO)

1. What are the three most important facts about the topic you need to convey?
2. Who is the main audience?
3. What is the ultimate message/action the audience needs to understand/take?
4. Who is the primary point of contact for further information?



Integrating Vital Statistics Data into Press Releases



What is a Press Release?

- Communication directed at the news media
 - Announcing a newsworthy event
 - Targeting journalists, editors, radios, social media
 - Creating open communication with the media



Elements of Good Press Releases

Health Department Announces Drug Overdose Deaths Decreased in 2018 for the First Time in Eight Years Following Historic Investments

There were 1,444 drug overdose deaths in New York City in 2018, 38 fewer deaths than in 2017, and a rate decrease of 3%. However, declines were not evenly distributed by age, borough or race/ethnicity

For the second year in a row, fentanyl was the most common substance — involved in nearly two thirds of drug overdose deaths

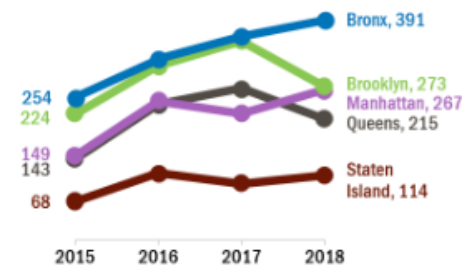
First quarter of 2019 shows 331 overdose deaths, which represents a decrease of 45 fatalities from the same time period last year and a slight drop from the final quarter of 2018

As part of HealingNYC, the City continues to fund effective treatment and overdose prevention efforts and support communities most affected by the epidemic

August 26, 2019 – After seven consecutive years of increasing drug overdose deaths, the Health Department today announced a decrease in the number and rate of overdose deaths from 2017 to 2018, but cautioned the epidemic is not over. There were 1,444 overdose deaths in 2018 – 38 fewer deaths compared with 2017 (PDF).

“The decrease in drug overdose deaths is promising, but far too many New Yorkers are still dying,” said **Health Commissioner Dr. Oxiris Barbot**. “We are closely monitoring the trends of the epidemic as they evolve and responding to upticks in emergency department visits and deaths with targeted strategies and community engagement. We remain firmly committed to expanding life-saving services and caring for New Yorkers who use drugs.”

Number of unintentional overdose deaths, by borough of residence, New York City, 2015–2018



Sources: NYC Office of the Chief Medical Examiner and NYC DOHMH Bureau of Vital Statistics, 2000–2018; 2018 data are provisional and subject to change.

- Attention grabbing headline
- First paragraph gets to the point
- Includes data
- Includes quotes
- Includes contact information
- Provides access to more information



Sources: The Huffington Post, 8 Tips for Writing a Great Press Release, 2012; New York City Department of Health and Mental Hygiene, 2019



Acknowledgements

- Bloomberg Philanthropies Data for Health Initiative
- Vital Strategies
- US Centers for Disease Control and Prevention
- University of Melbourne
- Statistics Norway
- ESCAP
- EFTA