Understanding How IVPB Processes Data

STEP 1
IVPB receives data

STEP 2
IVPB processes the data

STEP 3
Data are analyzed

STEP 4
Data are summarized and shared

STEP 1 IVPB receives data from partners to identify and monitor injuries across the state.

Data sources differ in availability and timeliness. Depending on the data source, IVPB can receive data on a monthly, quarterly, or annual basis.

Below are the main data sources that IVPB uses.

- Data on *injury deaths*:
    - Death certificate data from the NC State Center for Health Statistics (SCHS)
    - Medical examiner reports from the Office of the Chief Medical Examiner (OCME)
    - NC Violent Death Reporting System (NC-VDRS)
    - NC State Unintentional Drug Overdose Reporting System (NC-SUDORS)
- Data on *non-fatal injuries*:
    - Emergency Department (ED) visit data from NC Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT)
    - Emergency Medical Services (EMS) records from the Office of EMS via NC DETECT
    - Hospital discharge data (HDD) from the NC Healthcare Association via SCHS
- *Survey data*:
    - Youth Risk Behavior Survey (YRBS)
    - Behavioral Risk Factor Surveillance System (BRFSS)

Other data sources are also used to provide more context to injuries that occur in NC and related social drivers of health. To learn more about each source, visit Data Sources IVPB Uses for Injury Surveillance.

IVPB processes the data to identify specific types of injuries.

Each data file IVPB receives is processed to customize the data for use in injury surveillance and is then stored to keep the information private and secure.

- The data are checked for the important details that help to identify and describe injuries.
- IVPB applies **case definitions** to the data to identify specific types of injuries.
  - Cases are identified and grouped by injury mechanism and intent.
  - IVPB takes time to understand how national case definitions work when used with NC data and has developed additional NC definitions.
    - To learn more about surveillance case definitions, visit Understanding Injury Surveillance Case Definitions.
    - To review the specific case definitions IVPB uses, visit North Carolina Injury and Violence Prevention Branch Injury Case Definitions.
- The data are organized into groups based on things like sex, age, race/ethnicity, location, and other important factors to prepare the data for analyses.
  - IVPB explores how best to define and identify specific groups, locations, and lived experiences in the data.
  - IVPB makes efforts to use categories to group people that are fair and accurate.
    - Fair – Assigned without bias
    - Accurate – Match the true characteristics or experiences of the groups

Once the data are in a format that can be used for injury surveillance, they are analyzed.

Data are analyzed to understand **who** is impacted by injuries in NC, what types of injuries are happening, **when** and **where** injuries are happening, and **why**.

- IVPB uses data to monitor injury trends over time and identify groups and counties or regions of the state that are most impacted by injuries.
  - IVPB analyzes data by demographic factors like sex, age, racial/ethnic group, and by place (region, county, or census tract).
  - Injury and violence data are also reported to the Centers for Disease Control and Prevention (CDC) to be used in national injury surveillance for all states.
- IVPB often incorporates data from additional data sources to understand risk and protective factors that can contribute to or help to prevent injuries.
- IVPB links data to other sources to help answer questions about injuries that cannot be answered from a single dataset.

Data are summarized and shared to help inform response and prevention activities.

IVPB creates a variety of data resources including interactive data dashboards, fact sheets, slide decks, and data reports.

- These resources summarize injury trends in NC to help explain who is being impacted and where injuries are occurring.

- These data are shared with public health leadership and with partners across the state to focus prevention efforts and guide public health decision making.

  - Resources are often developed in collaboration with state and local government, nonprofit, and university partners to be sure they include the information and prevention messaging most helpful for public health planning.

- Some resources are updated monthly or quarterly with provisional data, while other resources are updated annually after final data are available.

  - For more information visit Using Provisional Data to Monitor Injuries.

- Data resources are also posted to the IVPB website for public use.

Visit the Interactive Data Inventory for a full list of IVPB data resources. This tool can be used to search for the data resources that include the type of data you need.

IVPB also processes custom data requests from the media, elected officials, other agencies, and the public for information that might not be found in a resource listed in the Data Inventory.

- For more information on how to request injury data and the timeline for the data request process, visit the Data Request Policy and Procedure page on the IVPB website.

FOR MORE RESOURCES:
Visit our Injury Data Users Toolkit

NC DEPARTMENT OF
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Division of Public Health

dph.ncdhhs.gov/injury-and-violence-prevention-branch-data-users-toolkit
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