

Part I: Data Brief

Data reports are often used to describe the epidemiology of a selected health topic of interest to the general public and public health community. The National Center for Health Statistics (NCHS) in Hyattsville, MD is a statistical agency for the government and part of the Centers for Disease Control and Prevention (CDC). Researchers at NCHS use Data Briefs to provide meaningful epidemiologic information on a specific topic of interest using available data sources (www.cdc.gov/nchs/products/databriefs.htm).

The purpose of a Data Brief is to provide an overview of the epidemiology to guide public health programs and target health resources accordingly. Data Briefs provide relevant data tabulations, visually-appealing graphics, text descriptions of the statistical patterns and trends, and an overall summary. Data briefs are short, but do not take the brevity of the assignment lightly. You will likely find that it takes several revisions to provide a *meaningful* summary of the epidemiology that will be useful to guide public health programs.

There are several key topics we focus on in maternal and child health. They often align with Healthy People 2020 objectives discussed in class. Given the importance of these topics, there are many interactive data tools that allow researchers to generate statistics on these topics across key demographic characteristics. Examples of these databases include:

- March of Dimes – Peristats: www.marchofdimes.org/peristats/Peristats.aspx
- CDC Wonder: <https://wonder.cdc.gov/>
- NCHS – Data Visualization: www.cdc.gov/nchs/data-visualization/
- Annie E. Casey Foundation – KIDS Count Data Center: www.aecf.org/work/kids-count/kids-count-data-center/
- Robert Wood Johnson Foundation – County Health Rankings: www.countyhealthrankings.org

Instructions: You and your group will work as epidemiologists to produce a Data Brief of **5 descriptive epidemiology graphs or images** on a selected MCH topic to inform the Maryland Department of Health, Maternal and Child Health Bureau. You will use interactive data tools to inform your Data Brief and produce graphics. We will be reviewing the specific components of a Data Brief and data tools in class – bring your laptops to class on those days.

Be sure to follow the specific instructions listed here. You may also find it helpful to read some example Data Briefs, which I have posted on ELMS.

Topics: The topics are selected based on availability of information from online epidemiologic data tools. A sign-up sheet will be passed around in class. In addition to the links below, you can look ahead in the syllabus for readings that provide important information on these topics.

- Preterm Birth
- Low birthweight
- Infant mortality
- Perinatal mortality
- Cesarean Delivery
- Prenatal Care
- Folic Acid – Vitamin Use before Pregnancy
- Smoking before/during Pregnancy
- Breastfeeding
- NICU admissions

FMSC 310: Research Project

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Components: We will be discussing the specific elements of a data brief in class. You should include the following components in your Data Brief for full credit:

- **Introductory paragraph** that summarizes the public health importance of this topic (i.e., why is this important, what are the health and societal consequences related to this topic, why do we want to understand differences in this health topic across key demographics?). This paragraph should orient the audience to the specific reason we need to care about this issue. Many of these topics correspond to MCH objectives for Healthy People 2020 goals.
 - www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health
- **Five graphics that describe the epidemiology** of your selected MCH topic. You may need to use both the online data tools or Excel charts to generate your graphics. While this may vary depending on topic and data availability, your graphics should generally include:
 - Overall trends (by time)
 - Geographic variation (by county)
 - By maternal age
 - By maternal race/ethnicity
 - +1 other meaningful comparison of your choosing. This may often combine comparisons of two of the above components or a comparison of state vs. national data. For example, trends over time in your health topic by race/ethnicity or MD vs. U.S. statistics by race/ethnicity.
- Each graphic should be accompanied by a **text description** – this can be in bullets of complete sentences or paragraph form. (See Data Brief examples)
- A **text box summarizing one “key finding”** from each graphic.
- **Concluding paragraph** that summarizes the overall patterns in the population and how these patterns may vary across different subgroups.
- **Definitions section** that define key epidemiologic terms used in your report.
- **Data source and methods section** that describes the original data source and description of the data source, data tools used to generate graphs, and any links to that information. You are welcome to conduct statistical tests, but this is not required. However, if you do, you need to describe your methodology.
- **Reference section** – cite all of your sources! Any source you cite should be listed in a Reference list at the end using a recognized citation format (i.e., APA, MLA, or Chicago style). In addition, your graphics should cite the data source used to compile the information.

Formatting: Your Data Brief should be typed and double-spaced in 12 pt. font with 1 in. margins on all sides. One person should be responsible for submitting the Data Brief for your group. Your Data Brief must have a header that contains: your group #, the name of each group member; course # and semester; and your topic. **Cite all your sources!** Any sources you cite should be listed in a Reference section using a recognized citation format (i.e. APA, MLA, or Chicago style).

Submission: You will submit your Data Brief online by 11:59 pm on the due date. The exact deadline for this assignment is listed in the syllabus.