



University of South Florida
College of Public Health

PHC 6197: Secondary Data Analysis in Maternal and Child Health

Fall 2021

85012 | 001 | 3 semester hours

COURSE SYLLABUS

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|---------------------------|---|------------------------|--|
| Course Description | <p>The purpose of this course is to provide experience in the management and analysis of data sets relevant to public health. Among the data sets considered are vital statistics, health care utilization databases, practitioner and other registries, periodic surveys, selected surveillance systems, and programmatic data.</p> <p>Campus CPH 1038B</p> <p>Wednesdays, 5:00-7:45pm</p> <p>Most sessions will be in classroom.</p> <p>The instructor will also provide occasional hands-on training and work sessions on campus, and the TA or instructor will also be available for one-on-one consultation throughout the semester.</p> | | |
| Pre-requisites | None | Course Website | http://my.usf.edu (Canvas) |
| Co-requisites | None | Delivery Method | Campus |

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| Instructor Information | Russell S. Kirby, PhD, MS, FACE | Office location: NEC 252-3 |
| | kirbyr@usf.edu | Office hours: email to schedule meetings |
| | 813-396-2347 office 813-373-9660 cell | Preferred method of contact: Email |
| | Be sure to include 'PHC 6197' in the subject line of your email. I will make every effort to reply to email and voice messages within 24 hours during business hours. | |

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| Teaching Assistant Information <i>(Delete section if course does not have a TA)</i> | Otobo Ujah | Office location: Remote |
| | otobo@usf.edu | Office hours: By request |
| | Phone | Preferred method of contact: Email |
| | Reply Policy: I will reply within 24 hours during business hours. | |

Course Requirements

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| Required Materials | <p>All readings will be provided by the instructor, accessible from the Internet, or located on Canvas. There will be readings including articles and web based material.</p> <p>Bookstore https://www.bkstr.com/usftampastore/home.</p> |
| Recommended Materials | <p>READINGS</p> <p>OPTIONAL TO BUY FROM BOOKSTORE OR ONLINE BOOK RETAILER:</p> <ul style="list-style-type: none"> • Taylor H. Lewis, <u>Complex Survey Data Analysis with SAS</u>, Boca Raton FL: CRC Press, 2016. • Ronald P Cody and Jeffrey K Smith, <u>Applied Statistics and the SAS Programming Language</u>, 5th Edition. (Pearson Prentice Hall, 2006). • The course instructor will provide a list of other SAS learning tools in class. <p>OTHER READING MATERIALS:</p> <ul style="list-style-type: none"> • <u>From Data to Action: CDC's Public Health Surveillance for Women, Infants and Children</u>, available online at: http://www.cdc.gov/reproductivehealth/ProductsPubs/DatatoAction/DataToAction.htm • Instructor will provide additional readings and URL links via Canvas |

Technology Information

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| Technology Requirements | <p>Students in all online public health courses are expected to meet the basic technology requirements to successfully participate in their courses. Failure to meet these requirements may cause problems accessing the course materials.</p> <p>It is the student's responsibility to ensure all requirements are met prior to the start of the semester. http://health.usf.edu/publichealth/eta/students_tech_requirements</p> <p>Pre-requisite technology skills:</p> |
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| | <p><i>Describe any technology skills required before taking this course here.</i></p> <p>Special Technology Requirements for this course (if applicable): <i>Provide link and description of additional requirements here.</i></p> <p>Collaborate Computer Requirements (if applicable): Collaborate: http://eta.health.usf.edu/technology/Collaborate/Collaborate_Instructions.pdf</p> <p>Collaborate Ultra: http://eta.health.usf.edu/technology/Collaborate/CollaborateUltra_Instructions.pdf</p> |
| Technical Assistance | <p>Use the Tech Assistance button on the course website. The Tech Assistance button links to the Technical Support page of the Office of Educational Technology & Assessment website at: http://health.usf.edu/publichealth/eta/techsupport.html Select from any of the available options. Students will receive a reply WITHIN 24 hours via phone or email based on student preference.</p> <p>During Exams: Technical assistance for exams are supported by ETA. The phone number will be posted on the course website.</p> |

Course Schedule

| Lesson | Topic | Assignments and Activities | Assignment Due Date |
|-------------------------|--|---|--|
| Lesson 1 – August 25 | Introduction – Secondary Data and Research | Readings available on Canvas Identify at least one empirical study examining a research question relevant to your MCH interests that uses a cross-sectional, case-control, cohort or RCCT study design and complete the article critique form prior to next class. | |
| Lesson 2 – September 1 | Searches, Sources, and Library Resources – Allison Howard Scientific Basis of Health Research | Complete Treasure Hunt Assignment prior to next class. | #1 Article Critique Due September 1 |
| Lesson 3 – September 8 | Study Designs for Maternal and Child Health Research | Examine major study designs for quantitative research in MCH epidemiology | #2 Treasure Hunt Due September 7 |
| Lesson 4 – September 15 | Theoretical Frameworks in Child Health Research – Dr. Jennifer Marshall Introduction to SAS, Part I | Review conceptual models and theoretical frameworks for child health Basic introduction to SAS | |
| Lesson 5 – September 22 | Evaluating Secondary Data – Dr. Jean Paul Tanner and Dr. Jason Salemi Introduction to SAS Part II | Tools and techniques for assessing validity, reliability and utility of secondary data for research Building on basic introduction, provide all tools needed to complete Assignment 3 | |
| Lesson 6 – September 29 | Controversies and Unanswered Questions in Maternal and Child Health Introduction to SAS Part III | Key questions and controversies in MCH, continued exploration of NSCH variables and applications Continue to build on SAS skills | #3 Population Estimates Due September 28 |
| Lesson 7 – October 6 | Scientific Background to NSCH and Applications Operationalizing Study Hypotheses | Examine uses of the NSCH to address program, policy and epidemiologic research questions | #4 Due Research Question Due October 5 |
| Lesson 8 – October 13 | SAS and the NSCH | | |
| Lesson 9 – October 20 | Developing Analysis Plans | Discuss how to create an analysis plan, including variable selection, data manipulation, choice of analytical methods, and dummy tables for presentation of results | #5 Background and Literature Review Due October 19 |
| Lesson 10 – October 27 | Applying Secondary Data in State-level Public Health – Dr. William Sappenfield | Discuss study implementation issues including handling missing data | |

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| | Challenges in Study Implementation | | |
| Lesson 11 – November 3 | Florida Child Health Policy – Dr Stephen Freedman Challenges in Study Implementation | Discuss analytical challenges including confounding and effect modification | #6 Selecting Variables and Observations for Analysis Due November 2 |
| Lesson 12 – November 10 | Analyzing and Interpreting Statistical Results | | |
| Lesson 13 – November 17 | Discussion and Dissemination of Research Results | | #7 Describing Study Findings Due November 16 |
| Lesson 14 – November 24 | No Class – evening before Thanksgiving | | |
| Lesson 15 – December 1 | Student Presentations | | |
| Lesson 16 – December x | Student Presentations (if needed) | | |
| December 11 | Last day of Fall semester | No class session, all assignments due | #8 Final Paper Due December 10 |

Grading Policies and Procedures

Grading Scale

| Letter Grade | Percentage (%) | Letter Grade | Percentage (%) |
|--------------|----------------|--------------|----------------|
| A | 94 - 100 | C | 74 - 76 |
| A- | 90 - 93 | C- | 70 - 73 |
| B+ | 87 - 89 | D+ | 67 - 69 |
| B | 84 - 86 | D | 64 - 66 |
| B- | 80 - 83 | D- | 60 - 63 |
| C+ | 77 - 79 | F | 0 - 59 |

"I" Grade: Students who are unable to complete all requirements of the course for circumstances beyond their control may request to receive an "I" grade to allow for completion of the remaining coursework the next semester(s).

Undergraduate: <http://ugs.usf.edu/policy/IGradePolicy.pdf>

Graduate: http://www.grad.usf.edu/policies_sect7_full.php

Grading Criteria

| Assessment | Total Points |
|---|--------------|
| <i>Assignment 1 – Article Critique</i> | 50 |
| <i>Assignment 2 – Treasure Hunt</i> | 150 |
| <i>Assignment 3 – Population Estimates</i> | 100 |
| <i>Assignment 4 – Research Question</i> | 0 |
| <i>Assignment 5 – Background and Literature Review</i> | 100 |
| <i>Assignment 6 – Selecting Variables and Observations for Analysis</i> | 150 |
| <i>Assignment 7 – Describing Study Findings</i> | 100 |
| <i>Assignment 8 - Paper</i> | 200 |
| <i>Assignment 8 - Presentation</i> | 100 |
| <i>Participation</i> | 50 |
| Total | 1000 |

Assessment Description

Analysis Project: Students will practice collecting, analyzing and presenting data, which is a necessary skill for public health practitioners. Using SAS, students will complete an individual project, in which they will be required to manipulate and analyze public health data. The analysis will include descriptive and inferential statistics, as well as an 8-10 page written paper. Students will also be required to report their findings in a presentation to their fellow classmates. Standardized rubrics (provided in Canvas) will be used to evaluate student mastery. The assignments are as follows:

Assignment 1 – Critical review of the research literature

Assignment 2 – Using and interpreting publicly available data (AKA MCH Treasure Hunt)

Assignment 3 – Epidemiology of child health condition (AKA Population Estimates)

Assignment 4 – Research question

Assignment 5 – Background and literature review

Assignment 6 – Study design and analysis plan
Assignment 7 – Results and presentation of statistical findings
Assignment 8 – Complete paper and presentation

Rubrics for each assignment can be found on the course site in Canvas.

Grading Policies

Assignments will be graded and posted in Canvas. From time to time the instructor may offer extra credit opportunities. Assignments are due on the specified dates. Marks will be reduced 5 points per day late, unless prior consent is obtained from the instructor.

Academic Integrity

Academic Integrity: The College of Public Health considers academic integrity to be a critical component of higher education. It can be useful for students to collaborate when studying and learning course material. And, in some cases, certain social media platforms can be used to help facilitate learning. However, the use of technology (such as GroupMe, CourseHero, SnapChat, etc.) to cheat is in violation of the academic integrity policy at USF. This includes sharing exam questions, taking exams together, posting previous assignments, downloading assignments/course content from unapproved sources, directly copying content from outside sources (plagiarism), purchasing or soliciting content, or participating in discussions related to cheating.

Students who witness cheating, such as in an online chat, even if they are not actively participating, are required to report the activity. Awareness of cheating without reporting it is called complicity. Complicity also bears penalty according to the USF academic integrity policy.

The College of Public Health will impose sanctions for plagiarism, cheating, and complicity that are in direct violation of USF's academic integrity policy. This may include a zero on an assignment/exam, failure of a course, assignment of an FF course grade, which indicates academic dishonesty on the student's USF record, or dismissal from the University. See the [Institutional Policies](#) for more details.

Course Competencies and Objectives

| Alignment Matrix | | | | |
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| CONCENTRATION COMPETENCIES: MATERNAL AND CHILD HEALTH (PMC) | COURSE OBJECTIVES: [PHC 6197-001, Secondary Data Analysis for Maternal and Child Health] | MEETS CC | ASSESSMENTS* | SESSION # |
| <ol style="list-style-type: none"> 1. Identify the scientific underpinnings and strength of evidence from the literature for addressing MCH issues including: morbidity and mortality; individual, family, community factors; and health system characteristics. 2. Describe the scope and impact of MCH problems for children, women, and families 3. Use basic quantitative and qualitative research methods to prepare data for problem identification, program planning and evaluation, and policy analysis. 4. Apply organizational theory to public health, program planning, management and evaluation. 5. Describe MCH history, policy development, major programs, laws, regulations, advocacy movements and current legislative mandates. 6. Summarize data on a policy, write policy statements, and translate policies into organization. | <ol style="list-style-type: none"> 1. Define population-based data and secondary public health data sources | 1,6 | 1 | 1 |

- 7. Communicate effectively both orally and in writing.
- 8. Utilize cultural competence and social justice concepts, community partnership development, and ethical standards in practice.

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| 2. Explain data typically included in administrative public health databases, including vital records, hospital discharge, Medicaid, and representative sample surveys, and discuss the value and limitations of those data | 1,2,3,6,7,8 | 1,2 | 3,7,9,11 |
| 3. Explain ICD, CPT and related coding rubrics for health conditions and health care services | 3,6 | 1,2,5 | 3 |
| 4. Apply basic epidemiologic and biostatistical principles and techniques to the analysis and interpretation of statistical data from secondary sources | 2,3 | 1,2,3,6,7,8 | 2,3 |
| 5. Utilize state and local websites, e.g. the Florida Community Health Assessment Resource Tool Set (CHARTS; http://www.floridacharts.com/) to assess community needs and plan public health programs | 2,3,6 | 1,3 | 1,2,4,9,11 |
| 6. Determine effective ways to present data, given the intended audience | 1,2,3,6,7 | 1,2,3,8 | 4,5,11,13 |
| 7. Describe public health data sources, including their purposes and potential uses, methodology, and strengths and limitations | 1,3,6,7,8 | 1,7,8,9 | 1,3,5,7,15-16 |
| 8. Develop a testable research hypothesis concerning a child health or children with special | 3,4,5,6,7,8 | 4,5,6,7,8 | 4,6-16 |

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| | health care needs issue, design a study to test the hypothesis using data from the National Survey of Children’s Health (NSCH) or National Survey of Children with Special Health Care Needs (NSCSHCN), analyze the data, and prepare a report in the form of a draft manuscript concerning your study results and their implications | | | |
| | 9. Make a formal scientific presentation of your study and its findings | 7 | 7,8 | 15,16 |

* **Assessment Types:** Quiz, Web quest, Journal/Blog, Discussion Board, Written Assignment, Exam (including essays), Poster, Individual Project, Group Project, Group Presentation, Case Study, Research Paper, Demonstration/Simulation and Other

Additional Course Information

LIBRARY RESOURCES

‘How to Find a Journal Article’: <http://itt.usf.edu/publichealth/library/tutorial/index.html>

USF Library Resources and Services: <http://www.lib.usf.edu/>

Shimberg Health Sciences Library: <http://health.usf.edu/library/home.html>

- Health Data Tools and Statistics (Partners in Information Access for the Public Health Workforce): http://phpartners.org/health_stats.html
 - Child Trends DataBank: <http://www.childtrendsdatbank.org/>
 - Florida CHARTS: <http://www.floridacharts.com/>
 - Statehealthfacts.org (Kaiser Family Foundation): <http://statehealthfacts.org/>
 - Title V Information System (HRSA/Maternal and Child Health Bureau): <https://perfdata.hrsa.gov/MCHB/TVISReports/default.aspx>
 - KIDS COUNT (The Annie E. Casey Foundation): <http://www.aecf.org/MajorInitiatives/KIDSCOUNT.aspx>
 - Gateway to Data and Statistics (U.S. Department of Health and Human Services): <http://www.hhs-stat.net/>
 - Child and Adolescent Health Measurement Initiative (CAHMI): <http://cahmi.org/pages/Home.aspx>
- MCH Data Connect: <http://web.sph.harvard.edu/mch-data-connect/>

Other Information

Make-up Policy: There is no provision for make-up work. If your work is deemed unacceptable (less than ‘B’ work) you will be given an opportunity to redo with the understanding that you will receive no more than a ‘B’ for the revision. There will be no opportunity for revision for oral presentations and class participation. If you choose to revise an assignment, you must notify the instructor within 48 hours after receiving your grade. Revisions are due within 10 working days.

Late Assignments: Late assignments will have 5 points from the assignment deducted each working day. No late assignments are accepted after 7 days (including weekends).

Extra Credit Policy: From time to time the instructor may offer short-term extra credit opportunities. These will be announced in class and on Canvas, usually due by the beginning of the next class session.

Course Policies

Online Attendance and Participation

All students must comply with university policies and posted signs regarding COVID-19 mitigation measures, including wearing face coverings and maintaining social distancing. Failure to do so may result in dismissal from class, referral to the Office of Student Conduct and Ethical Development, and possible removal from campus. [Click here for more details.](#)

See Institutional Policies link for Statement of Academic Continuity.

Title IX

Title IX provides federal protections for discrimination based on sex, including pregnancy and sexual harassment, sexual violence, stalking, and relationship violence. In effort to provide support and equal access, USF has designated all faculty (TA, Adjunct, etc) as Responsible Employees, **who are required to report any disclosures of sexual harassment, sexual violence, relationship violence or stalking.** The Title IX Office makes every effort, when safe to do so, to reach out and provide resources and accommodations, and to discuss possible options for resolution. Anyone wishing to make a Title IX report or seeking accommodations may do so online, in person, via phone, or email to the Title IX Office. For information about Title IX or for a full list of resources please visit: <https://www.usf.edu/title-ix/gethelp/resources.aspx>. *If you are unsure what to do, please contact Victim Advocacy –a confidential resource that can review all your options at 813-974-5756 or va@admin.usf.edu.*

Instructor Expectations

Include philosophy of teaching, expectations for this course, your availability during the course, methods and format for feedback to students.

Institutional Policies and Resources

Institutional Policies

Policies about disability access, religious observances, academic grievances, academic misconduct, and several other topics are governed by a central set of policies, which apply to all classes at USF. These policies may be accessed at: <https://www.usf.edu/provost/faculty/core-syllabus-policy-statements.aspx>

Other Institutional Policies and Resources

Download at: <https://usfhealth.box.com/s/3nxazd87ucg5ixlzf5wxkii009rte8z6>