



Syllabus
HPM 767: Implementation Science in Health
Spring 2019
3 Credits | Residential

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Course Overview

Course Description This course introduces the concepts, theories, and methods of implementing evidence-based health, behavioral health, and social service interventions. The course also examines the methods for conducting rigorous research on implementation.

Prerequisites None

Instructor Byron J. Powell, PhD, LCSW
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Course Website <https://sakai.unc.edu/welcome/>. Use your ONYEN and password.

**Class Days, Times,
Location** Tuesdays, 2:00 - 4:45 p.m.
Rosenau 228

Office Hours There are no set office hours for this course. Students may request an appointment by email. Virtual office hours may be conducted via phone or Zoom.

Course Texts There is no required textbook. Readings will be noted in the Course Schedule.

The following texts are highly recommended:

- Brownson, R. C., Colditz, G. A., & Proctor, E. K. (Eds.). (2018). Dissemination and implementation research in health: Translating science to practice (2nd ed.). New York: Oxford University Press.
- Grol, R., Wensing, M., Eccles, M., & Davis, D. (Eds.). (2013). Improving patient care: The implementation of change in health care (2nd ed.). Chichester: John Wiley & Sons, Inc.
- Straus, S., Tetroe, J., & Graham, I. D. (Eds.). (2013). Knowledge translation in health care: Moving from evidence to practice (2nd ed.). Chichester, West Sussex: John Wiley & Sons.

Course Format The course format includes lectures, small group discussions, in-class exercises, case studies, and examples from the public health literature.

Course Policies and Resources

Recognizing, Valuing and Encouraging Inclusion and Diversity in the Classroom

We share the School's [commitment to diversity](#). We are committed to ensuring that the School is a diverse, inclusive, civil and welcoming community. Diversity and inclusion are central to our mission — to improve public health, promote individual well-being and eliminate health inequities across North Carolina and around the world. Diversity and inclusion are assets that contribute to our strength, excellence and individual and institutional success. We welcome, value and learn from individual differences and perspectives. These include but are not limited to: cultural and racial/ethnic background; country of origin; gender; age; socioeconomic status; physical and learning abilities; physical appearance; religion; political perspective; sexual identity and veteran status. Diversity, inclusiveness and civility are core values we hold, as well as characteristics of the School that we intend to strengthen.

We are committed to expanding diversity and inclusiveness across the School— among faculty, staff, students, on advisory groups, and in our curricula, leadership, policies and practices. We measure diversity and inclusion not only in numbers, but also by the extent to which students, alumni, faculty and staff members perceive the School's environment as welcoming, valuing all individuals and supporting their development.”

In this class, we practice these commitments in the following ways:

- Develop classroom participation approaches that acknowledge the diversity of ways of contributing in the classroom and foster participation and engagement of *all* students.
- Structure assessment approaches that acknowledge different methods for acquiring knowledge and demonstrating proficiency.
- Encourage and solicit feedback from students to continually improve inclusive practices.

As a student in the class, you are also expected to understand and uphold the following UNC policies:

- **Diversity and Inclusion at the Gillings School of Global Public Health:**
<http://sph.unc.edu/resource-pages/diversity/>
- **UNC Non-Discrimination Policies:**
<http://policy.sites.unc.edu/files/2013/04/nondiscrim.pdf>
- **Prohibited Discrimination, Harassment, and Related Misconduct at UNC:**
<https://deanofstudents.unc.edu/incident-reporting/prohibited-harassmentsexual-misconduct>

Accessibility

UNC-CH supports all reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability, or a pregnancy complication resulting in difficulties with accessing learning opportunities. All accommodations are coordinated through the UNC Office of Accessibility Resources & Services (ARS), <https://ars.unc.edu/>; phone 919-962-8300; email ars@unc.edu. Students must document/register their need for accommodations with ARS before accommodations can be implemented.

Counseling and Psychological Services

CAPS is strongly committed to addressing the mental health needs of a diverse student body through timely access to consultation and connection to clinically appropriate services, whether for short or long-term needs. Go to their website: <https://caps.unc.edu> or visit their facilities on the third floor of the Campus Health Services building for a walk-in evaluation to learn more.

UNC Honor Code

As a student at UNC-Chapel Hill, you are bound by the university's [Honor Code](#), through which UNC maintains standards of academic excellence and community values. It is your responsibility to learn about and abide by the code. All written assignments or presentations (including team projects) should be completed in a manner that demonstrates academic integrity and excellence. Work should be completed in your own words, but your ideas should be supported with well-cited evidence and theory. To ensure effective functioning of the [Honor System](#) at UNC, students are expected to:

- a. Conduct all academic work within the letter and spirit of the Honor Code, which prohibits the giving or receiving of unauthorized aid in all academic processes.
- b. Learn the recognized techniques of proper attribution of sources used in written work; and to identify allowable resource materials or aids to be used during completion of any graded work.
- c. **Sign a pledge on all graded academic work certifying that no unauthorized assistance has been received or given in the completion of the work.**
- d. Report any instance in which reasonable grounds exist to believe that a fellow student has violated the Honor Code.

Instructors are required to report suspected violations of the Honor Code, including inappropriate collaborative work or problematic use of secondary materials, to the Honor Court. Honor Court sanctions can include receiving a zero for the assignment, failing the course and/or suspension from the university. If you have any questions about [your rights and responsibilities](#), please consult the Office of Student Conduct at <https://studentconduct.unc.edu/>, or consult these other resources:

- Honor system [module](#).
- UNC library's [plagiarism tutorial](#).
- UNC Writing Center [handout on plagiarism](#).

Instructor Expectations

- Email** The instructor(s) will typically respond to email within 24 hours or less if sent Monday through Friday. The instructor(s) may respond to weekend emails, but it is not required of them. If you receive an out of office reply when emailing, it may take longer to receive a reply. The instructor(s) will provide advance notice, if possible, when they will be out of the office.
- Feedback** All graded assignments will receive written feedback. Feedback is meant to be constructive and help the student continue to build upon their skills. The types of feedback you may receive are descriptive feedback, evaluative feedback, and motivational feedback. Feedback is a tool that you as a learner can use to understand the areas that you are succeeding in and what you can do to improve in other areas.
- Grading** Assignments will be graded no more than two weeks after the due date. Assignments that build on the next assignment will be graded within one week of the final due date. Early submissions will not be graded before the final due date.
- Syllabus Changes** The instructor reserves the right to make changes to the syllabus, including project due dates and test dates. These changes will be announced as early as possible.

Student Expectations

- Appropriate Use of Course Resources:** The materials used in this class, including, but not limited to, syllabus, exams, quizzes, and assignments are copyright protected works. Any unauthorized copying of the class materials is a violation of federal law and may result in disciplinary actions being taken against the student. Additionally, the sharing of class materials without the specific, express approval of the instructor may be a violation of the University's Student Honor Code and an act of academic dishonesty, which could result in further disciplinary action. This includes, among other things, uploading class materials to websites for the purpose of sharing those materials with other current or future students.
- Assignments** Submit all assignments through Sakai or assignment links located in the weekly modules, syllabus link, or assignments link (if made available by your instructor). Emailing assignments is not acceptable unless prior arrangements have been made. If you are having issues submitting assignments, try a different web browser first. If switching browsers does not work, email or call the instructor for guidance.
- Attendance/ Participation** In the workplace, when someone is gone, the group has to pick up the slack but the absent member still benefits from the group work. If the absent person has a good reason for being gone, explains the reason to the group, **and** does their best to make amends, most groups will gladly extend the benefit. If, however, members have doubts about the reason for the absence, feel like the member is trying to "freeload" or both, then the absence is likely to be a black mark that may not be forgotten when the peer evaluations come around. So, if you have to

be absent, let your peers know in advance and make sure that you do your best to make up for it.

Communication

You are expected to follow common courtesy in all communication to include email, discussion boards, and face-to-face. All electronic communications sent should follow proper English grammar rules to include complete sentences. This is a professional course, and you are expected to communicate as a professional.

Contributions

You are expected to offer individual contributions in class and on individual assignments, and collaborate with fellow students on assignments for which students may work together, such as group assignments.

Email

All email correspondence between student/instructor and peer/peer will be conducted in a professional manner following email etiquette.

View the following link for more information on email etiquette:
<http://metropolitanorganizing.com/etiquette-professional-organizing-services/essential-email-etiquette-tips/>

Late Work

Late, missed, or rescheduled work:
Exam date and assignment due dates will not be changed because of exams or assignments in other courses or because of conflicting vacation travel plans. Late submissions will receive a 1-point reduction for every day that they are late. After seven days, late submissions will receive no points. Corrected submissions will not be accepted unless stated otherwise. You must inform the instructor on the first week of class if you cannot attend an exam or presentation due to extenuating circumstances, such as medical procedures or professional travel. Attendance on the day of the presentation and exams is otherwise required to receive points for those activities.

Readings

Students are expected to complete the required readings by the date listed in the course schedule and come prepared to take a quiz covering the material that they have read (Readiness Assurance Quizzes [RAQs]). Additional readings and resources are offered for many topics. While it is recommended that students explore those relevant to their particular interests, these readings and resources are optional and will not be included on RAQs.

Technical support

The UNC Information Technology Services (ITS) department provides technical support 24-hours per day, seven days per week. If you need computer help, please contact the ITS Help Desk by phone at +1-919-962-HELP (919-962-4357), or by email at help@unc.edu, or by visiting their website at <http://help.unc.edu>, or by UNC Live Chat at <http://its.unc.edu/itrc/chat>.

Assessment

Course Assignments and Assessments

Assignments	Points/Percentages
1. Readiness Assurance Quizzes (4)	20
2. Integrative Team Assignments (4)	30
3. Modular Individual Paper	50
4. Class participation	10
TOTAL	100

Grading Scale

Final course grades will be determined using the following [UNC Graduate School grading scale](#). The relative weight of each course component is shown in the table above.

H	93-100	High Pass: Exceptional graduate work
P	75-92	Pass: Acceptable graduate work
L	65-74	Low Pass: Marginally acceptable graduate work
F	Less than 65	Fail: Unacceptable graduate work

Assignment Descriptions

Descriptions of the assignments follow.

1. Readiness Assurance Quizzes (20%)

Description. The readiness assurance process ensures that students have completed the required reading and are prepared for in-class team work. Students will complete a brief quiz for each module (Note: The quiz for Module 1 and Module 2 will be combined).

2. Integrative Team Assignments (20%)

Description. Students will become members of five- to six-person teams assigned to include diversity of knowledge and experience. These teams will remain intact throughout the semester. For each module, students will complete an in-class integrative team exercise in which students will work in their teams to make specific decisions or predictions based on their collective analysis of a complex issue. At the end of the class period, each team will turn in a written assignment associated with the exercise.

3. Modular Individual Paper (50%)

Description. At the end of each module (with the exception of Module 5), students will write a brief paper, in which they apply content from that module to their own field or area of interest to respond to a particular set of prompts, as listed below. These papers should be 2-4 pages, double spaced, and should include APA citations of relevant literature (both in text and in the bibliography). Papers should be submitted on Sakai by 2:00 p.m. on the day they are due. The instructor will allow time in class to discuss these assignments in further detail prior to their due dates. Papers 1-4 will not be formally graded, but the instructors will provide feedback that should be incorporated into the final paper.

- **Individual Paper 1 (Due Week 3)**

Identify and describe at least one quality gap and provide the most rigorous evidence from the literature that documents that gap. Identify an evidence-based intervention that might address this gap. Succinctly summarize the evidence for the intervention you propose to implement.

- **Individual Paper 2 (Due Week 5)**

Articulate how implementation research can be leveraged to address the gap that you describe. Select implementation frameworks that could guide implementation. Briefly describe each framework you select and explain how they can help you to: 1) identify implementation barriers and facilitators, 2) inform implementation processes, and 3) specify relevant implementation outcomes. Describe a process for identifying and prioritizing barriers and facilitators that need to be addressed with implementation strategies. For example, what framework(s) would you use to guide the process, what methods would you use to identify barriers and facilitators that have already been identified in the implementation literature, would you collect additional qualitative, quantitative, or mixed methods data? It is plausible that you will identify so many potential barriers and facilitators that it would be difficult to address them all. Once they have been identified, what types of processes would you use to prioritize the barriers and facilitators that you will address?

- **Individual Paper 3 (Due Week 9)**

Outline an approach to selecting implementation strategies that are appropriate for addressing

the determinants that you have identified. How will you ensure that relevant stakeholders, theory, and evidence will inform the selection of implementation strategies? Describe a multifaceted implementation strategy that may effectively address the barriers that you prioritize. Outline your theoretical, empirical, or pragmatic rationale for including specific discrete (or component) strategies. Carefully specify the strategies that you select using an established reporting guideline for implementation strategies, such as the Proctor et al. (2013) recommendations (<http://www.implementationscience.com/content/8/1/139>), the WIDER Recommendations (<http://www.implementationscience.com/content/8/1/52>), or the Template for Intervention Description and Replication (<http://www.bmj.com/content/348/bmj.g1687>).

- **Individual Paper 4 (Due Week 13)**

Develop a plan to evaluate the implementation strategy that you specified in Individual Paper 3. Please accomplish the following: 1) identify an appropriate research design; 2) specify the implementation and public health outcomes that you would assess and operationally define them; and 3) suggest data collection methods and measures that you would use.

- **Final Individual Paper (Due Week 15)**

Integrate Individual Papers 1-4 into a cohesive final paper that is no longer than 15 pages double spaced.

4. Class Participation (10%)

Description. Students will be assessed based on the extent of their engagement in class lectures, discussions, and in-class exercises.

Course-at-a-Glance

The instructor may to make changes to the syllabus, which will be announced as early as possible.

Date/Session/Week/Unit	Topics	Assignment Due
Module 1: Defining Implementation Science, Identifying Gaps, Selecting and Adapting Interventions		
Week 1 (1-15-19)	Introduction to Implementation Science	N/A
Week 2 (1-22-19)	Cultural Adaptation 2:00-2:45 - Leopoldo Cabassa (Washington University in St. Louis) Adaptation Frameworks and Processes 3:00-3:45 - Alexis Kirk (RTI International) 4:00-4:45 - Discussion	N/A
Module 2: Selecting Theories and Frameworks and Identifying Barriers and Facilitators		
Week 3 (1-29-19)	Guiding Frameworks and Theories 2:00-2:30 - Byron Powell (UNC-Chapel Hill) 2:30-3:15 - Sarah Birken (UNC-Chapel Hill) 3:30-4:15 - Discussion Assessing and Prioritizing Implementation Determinants 4:15-4:45 - Byron Powell (UNC-Chapel Hill)	Individual Paper #1 Due
Week 4 (2-5-19)	Readiness Assurance Quiz #1 2:00-2:20 Integrative Team Assignment #1: Identifying Quality Gaps, Selecting and Adapting Interventions, Applying Frameworks, & Assessing & Prioritizing Barriers/Facilitators 2:20-4:45 - Exercise, Report Back, Discussion	Readiness Assurance Quiz #1 Team Exercise #1
Module 3: Designing and Tailoring Implementation Strategies		
Week 5 (2-12-19)	Introduction to Implementation Strategies Byron Powell (UNC-Chapel Hill)	Individual Paper #2 Due
Week 6 (2-19-19)	Developing and Testing Implementation Strategies 2:00-3:00 - Sarah Wilson (Duke) 3:15-4:00 - Jill Locke (University of Washington) 4:00-4:45 - Discussion	N/A
Week 7 (2-26-19)	Developing and Testing Implementation Strategies 2:00-2:45 - Jonathan Purtle (Drexel) 3:00-3:45 - Carolyn Audet (Vanderbilt) 4:00-4:45 - Discussion	N/A
Week 8 (3-5-19)	Readiness Assurance Quiz #2 2:00-2:20 Integrative Team Assignment #2: Designing and Specifying Implementation Strategies 2:20-4:45 - Exercise, Report Back, Discussion	Readiness Assurance Quiz #2 Team Exercise #2

Module 4: Designing Implementation Studies and Evaluations		
Week 9 (3-19-19)	<p>Research Designs 2:00-2:45 - J.D. Smith (Northwestern) 3:00-3:30 - Byron Powell (UNC-Chapel Hill)</p> <p>Ethical Issues in Implementation Science 3:45-4:45 - Beth Prusaczyk (Vanderbilt)</p>	Individual Paper #3 Due
Week 10 (3-26-19)	<p>Measurement 2:00-2:45 - Cara Lewis (Kaiser Permanente) 3:00-3:45 - Chris Shea (UNC-Chapel Hill)</p> <p>Stakeholder Engagement and Equity 4:00-4:45 - Amber Haley (UNC-Chapel Hill)</p>	N/A
Week 11 (4-2-19)	<p>Intersectionality 2:00-2:45 - Nicole Etherington (Ottawa Hospital Research Institute) & Danielle Kasperavicius (St. Michael's Hospital) 3:00-4:00 – Discussion</p> <p>Reporting Guidelines 4:15-4:45 - Byron Powell (UNC-Chapel Hill)</p>	N/A
Week 12 (4-9-19)	<p>Readiness Assurance Quiz #3 2:00-2:20</p> <p>Integrative Team Assignment #3: Designing an Implementation Study 2:20-4:45 - Exercise, Report Back, Discussion</p>	Readiness Assurance Quiz #3 Team Exercise #3
De-Implementation, Sustainment, and Scale-up		
Week 13 (4-16-19)	<p>De-Implementation 2:00-2:45 - Matthew Nielsen (UNC-Chapel Hill)</p> <p>Sustainment 3:00-3:45 - Rachel Shelton (Columbia University) 4:00-4:45 - Discussion</p>	Individual Paper #4 Due
Week 14 (4-23-19)	<p>Panel on Scale-up Domestically and Internationally 2:00-3:00 - Will Aldridge (UNC-Chapel Hill), Vivian Go (UNC-Chapel Hill), Robin Jenkins (UNC-Chapel Hill), Jennifer Leeman (UNC-Chapel Hill)</p> <p>Readiness Assurance Quiz #4 3:15-3:35</p> <p>Integrative Team Assignment #4: Sustainment and Scale-up 3:35-4:45 - Exercise, Report Back, Discussion</p>	N/A
Week 15 (4-30-19)		Final Individual Paper Due

Course Schedule

The instructor reserves the right to make changes to the syllabus, including project due dates and test dates. These changes will be announced as early as possible.

Week 1	
Topic	Introduction to Implementation Science
Required Reading	<ol style="list-style-type: none"> 1. Koh, S., Lee, M., Brotzman, L. E., & Shelton, R. C. (2018). An orientation for new researchers to key domains, processes, and resources in implementation science. <i>Translational Behavioral Medicine</i>. doi: 10.1093/tbm/iby095 2. Bauer, M. S., Damschroder, L., Hagedorn, H., Smith, J., & Kilbourne, A. M. (2015). An introduction to implementation science for the non-specialist. <i>BMC Psychology</i>, 3(32), 1–12. 3. Hamilton, A. B. & Mittman, B. S. (2018). Implementation science in health care. In R. C. Brownson, G. A. Colditz, & E. K. Proctor (Eds.), <i>Dissemination and implementation research in health: Translating science to practice</i> (2nd ed.; pp. 385–400). New York: Oxford University Press.
Optional Reading	<ol style="list-style-type: none"> 1. Rabin, B. A. & Brownson, R. C. (2018). Terminology for dissemination and implementation research. In R. C. Brownson, G. A. Colditz, & E. K. Proctor (Eds.), <i>Dissemination and implementation research in health: Translating science to practice</i> (2nd ed.; pp. 19–45). New York: Oxford University Press.
Assignment Deadline	N/A

Week 2	
Topic	Adapting Interventions (Cultural Adaptation, Adaptation Frameworks & Processes)
Required Reading	<ol style="list-style-type: none"> 1. Allen, J. D., Shelton, R. C., Emmons, K. M., & Linnan, L. A. (2018). Fidelity and its relationship to implementation effectiveness, adaptation, and dissemination. In R. Brownson, G. Colditz, & E. Proctor (Eds.), <i>Dissemination and implementation research in health</i> (2nd ed.; pp. 267–284). New York: Oxford University Press. 2. Baumann, A. A., Cabassa, L. J., & Wiltsey Stirman, S. (2018). Adaptation in dissemination and implementation science. In R. Brownson, G. Colditz, & E. Proctor (Eds.), <i>Dissemination and implementation research in health</i> (2nd ed.; pp. 285–300). New York: Oxford University Press. 3. Lee, S. J., Altschul, I., & Mowbray, C. T. (2008). Using planned adaptation to implement evidence-based programs with new populations. <i>American Journal of Community Psychology</i>, 41, 290–303. 4. Wiltsey Stirman, S., Miller, C. J., Toder, K., & Calloway, A. (2013). Development of a framework and coding system for modifications and

	adaptations of evidence-based interventions. <i>Implementation Science</i> , 8(65), 1–12.
Additional Resources	1. Castro, F. (2012). Replicating evidence-based programs: Fidelity and adaptation. (https://www.youtube.com/watch?v=EvwJlokXfc)
Assignment Deadline	N/A

Week 3	
Topic	Guiding Frameworks and Theories
Required Reading	<ol style="list-style-type: none"> 1. Nilsen, P. (2015). Making sense of implementation theories, models and frameworks. <i>Implementation Science</i>, 10(53), 1–13. 2. Graham, I. D., Logan, J., Harrison, M. B., Straus, S. E., Tetroe, J., Caswell, W., & Robinson, N. (2006). Lost in knowledge translation: Time for a map? <i>The Journal of Continuing Education in the Health Professions</i>, 26(1), 13–24. 3. Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. <i>Implementation Science</i>, 4(50), 1–15. 4. Proctor, E. K., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G. A., Bunger, A., ... Hensley, M. (2011). Outcomes for implementation research: Conceptual distinctions, measurement challenges, and research agenda. <i>Administration and Policy in Mental Health and Mental Health Services Research</i>, 38(2), 65–76.
Optional Reading	<ol style="list-style-type: none"> 1. Tabak, R. G., Khoong, E. C., Chambers, D. A., & Brownson, R. C. (2012). Bridging research and practice: Models for dissemination and implementation research. <i>American Journal of Preventive Medicine</i>, 43(3), 337–350. 2. Birken, S. A., Rohweder, C. L., Powell, B. J., Shea, C. M., Scott, J., Leeman, J., Grewe, M. E., Kirk, M. A., Damschroder, L., Aldridge, W. A., Haines, E. R., Straus, S., & Pesseau, J. (2018). T-CaST: An implementation theory comparison and selection tool. <i>Implementation Science</i>, 13(143), 1-10. 3. Michie, S., Johnston, M., Abraham, C., Lawton, R., Parker, D., & Walker, A. (2005). Making psychological theory useful for implementing evidence based practice: A consensus approach. <i>Quality and Safety in Health Care</i>, 14, 26–33. 4. Grol, R., Bosch, M. C., Hulscher, M. E. J., Eccles, M. P., & Wensing, M. (2007). Planning and studying improvement in patient care: The use of theoretical perspectives. <i>The Milbank Quarterly</i>, 85(1), 93– 138. 5. The Improved Clinical Effectiveness through Behavioural Research Group. (2006). Designing theoretically-informed implementation intervention. <i>Implementation Science</i>, 1(4), 1-8.
Additional Resources	<ol style="list-style-type: none"> 1. http://www.dissemination-implementation.org 2. http://cfirguide.org 3. https://episframework.com

	<ol style="list-style-type: none"> 4. Aarons, G. A. (2015). Use of theory in implementation research: The Exploration, Preparation, Implementation, Sustainment (EPIS) framework: A phased and multilevel approach to implementation (https://www.youtube.com/watch?v=OYw6g0F1rTs&hl=en_US&version=3). 5. Damschroder, L. (2015). Use of theory in implementation research: CFIR (https://www.youtube.com/watch?v=KAJ-oCJyWcs). 6. Kitson, A. & Harvey, G. (2015). Use of theory in implementation research: Pragmatic application and scientific advancement of the Promoting Action on Research Implementation in Health Services (PARiHS) framework. (https://www.youtube.com/watch?v=t4Joti5RTzA&hl=en_US&version=3). 7. Presseau, J. (2014). Collaborating for better care partnership [view the section on the Theoretical Domains Framework from 24:00 to 34:51]. (https://www.youtube.com/watch?v=j8dSmOFvb2A). 8. Straus, S. (2015). Use of theory in implementation research: Pragmatic application and scientific advancement of the knowledge-to-action (KTA) cycle. (https://www.youtube.com/watch?v=ASQhwjfOYhw) 9. Wandersman, A. (2015). Use of theory in implementation research: Using the Interactive Systems Framework as a lens for readiness in cancer control. (https://www.youtube.com/watch?v=lke0t6Fd_1k&hl=en_US&version=3)
Assignment Deadline	Individual Paper #1 Due

Week 4	
Topic	Integrative Team Assignment #1: Identifying Quality Gaps, Selecting and Adapting Interventions, Applying Frameworks, and Assessing and Prioritizing Barriers/Facilitators
Required Reading	<ol style="list-style-type: none"> 1. Légaré, F., & Zhang, P. (2013). Barriers and facilitators: Strategies for identification and measurement. In S. E. Straus, J. Tetroe, & I. D. Graham (Eds.), <i>Knowledge translation in health care</i>: (2nd ed., pp. 121–136). Chichester, West Sussex: John Wiley & Sons. 2. Krause, J., Van Lieshout, J., Klomp, R., Huntink, E., Aakhus, E., Flottorp, S., ... Baker, R. (2014). Identifying determinants of care for tailoring implementation in chronic diseases: An evaluation of different methods. <i>Implementation Science</i>, 9(102).
Class Activity	Team Exercise #1
Assignment Deadline	Readiness Assurance Quiz #1

Week 5	
Topic	Introduction to Implementation Strategies
Required Reading	<ol style="list-style-type: none"> 1. Powell, B. J., McMillen, J. C., Proctor, E. K., Carpenter, C. R., Griffey, R. T., Bunger, A. C., ... York, J. L. (2012). A compilation of strategies for

	<p>implementing clinical innovations in health and mental health. <i>Medical Care Research and Review</i>, 69(2), 123–157.</p> <ol style="list-style-type: none"> 2. Grimshaw, J. M., Eccles, M. P., Lavis, J. N., Hill, S. J., & Squires, J. E. (2012). Knowledge translation of research findings. <i>Implementation Science</i>, 7(50), 1–17. 3. Powell, B. J., Beidas, R. S., Lewis, C. C., Aarons, G. A., McMillen, J. C., Proctor, E. K., & Mandell, D. S. (2017). Methods to improve the selection and tailoring of implementation strategies. <i>Journal of Behavioral Health Services & Research</i>, 44(2), 177–194. 4. Weiner, B. J., Lewis, M. A., Clauser, S. B., & Stitzenberg, K. B. (2012). In search of synergy: Strategies for combining interventions at multiple levels. <i>JNCI Monographs</i>, 44, 34–41. 5. Lewis, C. C., Klasnja, P., Powell, B. J., Lyon, A. R., Tuzzio, L., Jones, S., ... Weiner, B. J. (2018). From classification to causality: Advancing understanding of mechanisms of change in implementation science. <i>Frontiers in Public Health</i>, 6(136), 1–6. 6. Proctor, E. K., Powell, B. J., & McMillen, J. C. (2013). Implementation strategies: Recommendations for specifying and reporting. <i>Implementation Science</i>, 8(139), 1–11. 7. Powell, B. J., Fernandez, M. E., Williams, N. J., Aarons, G. A., Beidas, R. S., Lewis, C. C., McHugh, S. M., & Weiner, B. J. (2019). Enhancing the impact of implementation strategies in healthcare: A research agenda. <i>Frontiers in Public Health</i>, 7(3), 1-9.
Optional Reading	<ol style="list-style-type: none"> 1. Kirchner, J. E., Waltz, T. J., Powell, B. J., Smith, J. L., & Proctor, E. K. (2018). Implementation strategies. In R. Brownson, G. Colditz, & E. Proctor (Eds.), <i>Dissemination and implementation research in health</i> (2nd ed.; pp. 245-266). New York: Oxford University Press. 2. Powell, B. J., Waltz, T. J., Chinman, M. J., Damschroder, L. J., Smith, J. L., Matthieu, M. M., ... Kirchner, J. E. (2015). A refined compilation of implementation strategies: Results from the Expert Recommendations for Implementing Change (ERIC) project. <i>Implementation Science</i>, 10(21), 1–14. 3. Waltz, T. J., Powell, B. J., Matthieu, M. M., Damschroder, L. J., Chinman, M. J., Smith, J. L., ... Kirchner, J. E. (2015). Use of concept mapping to characterize relationships among implementation strategies and assess their feasibility and importance: Results from the Expert Recommendations for Implementing Change (ERIC) study. <i>Implementation Science</i>, 10(109), 1–8. 4. Colquhoun, H. L., Squires, J. E., Kolehmainen, N., & Grimshaw, J. M. (2017). Methods for designing interventions to change healthcare professionals' behaviour: A systematic review. <i>Implementation Science</i>, 12(30), 1–11. 5. Albrecht, L., Archibald, M., Arseneau, D., & Scott, S. D. (2013). Development of a checklist to assess the quality of reporting of knowledge translation interventions using the Workgroup for Intervention Development and Evaluation Research (WIDER) recommendations. <i>Implementation Science</i>, 8(52), 1–5. 6. Hoffman, T. C., Glasziou, P. P., Boutron, I., Milne, R., Perera, R., Moher,

	D., ... Michie, S. (2014). Better reporting of interventions: Template for intervention description and replication (TIDieR) checklist and guide. <i>BMJ</i> , 348(g1687), 1–12.
Additional Resources	1. Cochrane EPOC (http://epoc.cochrane.org) 2. Health Systems Evidence (https://www.healthsystemsevidence.org)
Assignment Deadline	Individual Paper #2 Due

Week 6	
Topic	Developing and Testing Implementation Strategies (Examples from the Department of Veterans Affairs and Elementary Schools)
Required Reading	<ol style="list-style-type: none"> Gagliardi, A. R., Légaré, F., Brouwers, M. C., Webster, F., Badley, E., & Straus, S. (2016). Patient-mediated knowledge translation (PKT) interventions for clinical encounters: A systematic review. <i>Implementation Science</i>, 11(26), 1–13. Michie, S., Richardson, M., Johnston, M., Abraham, C., Francis, J., Hardeman, W., ... Wood, C. E. (2013). The behavior change technique taxonomy (v1) of 93 hierarchically clustered techniques: Building an international consensus for the reporting of behavior change interventions. <i>Annals of Behavioral Medicine</i>, 46(1), 81–95. Kok, G., Gottlieb, N. H., Peters, G. Y., Mullen, P. D., Parcel, G. S., Ruiter, R. A. C., ... Bartholomew, L. K. (2016). A taxonomy of behaviour change methods: An Intervention Mapping approach. <i>Health Psychology Review</i>, 10(3), 297–312.
Optional Reading	<ol style="list-style-type: none"> Locke, J., Shih, W., Kang-Yi, C. D., Caramanico, J., Shingledecker, T., Gibson, J., Frederick, L., & Mandell, D. S. (2018). The impact of implementation support on the use of a social engagement intervention for children with autism in public schools. <i>Autism</i>. doi: 10.1177/136236131878787802
Assignment Deadline	N/A

Week 7	
Topic	Developing and Testing Implementation Strategies (Examples from Policy Dissemination Research and Global Implementation)
Required Reading	<ol style="list-style-type: none"> Aarons, G. A., Moullin, J. C., & Ehrhart, M. G. (2018). The role of organizational processes in dissemination and implementation research. In R. Brownson, G. Colditz, & E. Proctor (Eds.), <i>Dissemination and implementation research in health</i> (2nd ed.; pp. 121-142). New York: Oxford University Press. Purtle, J., Dodson, E. A., & Brownson, R. C. (2018). Policy dissemination research. In R. Brownson, G. Colditz, & E. Proctor (Eds.), <i>Dissemination</i>

	<p><i>and implementation research in health</i> (2nd ed.; pp. 433-448). New York: Oxford University Press.</p> <p>3. Mbau, R. & Gilson, L. (2018). Influence of organizational culture on the implementation of health sector reforms in low- and middle-income countries: A qualitative interpretive review. <i>Global Health Action, 11</i>(1), 1-12.</p> <p>4. Doherty, T., Lewin, S., Kinney, M. et al. (2018). Addressing the tensions and complexities involved in commissioning and undertaking implementation research in low- and middle-income countries. <i>BMJ Global Health, 3</i>:e000741, 1-5.</p>
Optional Reading	<p>1. Purtle, J., Dodson, E. A., Nelson, K., Meisel, Z. F., & Brownson, R. C. (2018). Legislators' sources of behavioral health research and preferences for dissemination: Variations by political party. <i>Psychiatric Services</i>. doi: 10.1176/appi.ps.201800153</p> <p>2. Purtle, J., Lê-Scherban, F., Wang, X., Shattuck, P. T., Proctor, E. K., & Brownson, R. C. (2018). Audience Segmentation to disseminate behavioral health evidence to legislators: An empirical clustering analysis. <i>Implementation Science, 13</i>(121), 1-13.</p> <p>3. Hamilton, A. B., Mittman, B. S., Campbell, D., Hutchinson, C., Liu, H., Moss, N. J., & Wyatt, G. E. (2018). <i>BMC Health Services Research, 1</i>(11), 1-10.</p> <p>4. Powell, B. J., Beidas, R. S., Rubin, R. M., Stewart, R. E., Benjamin Wolk, C., Matlin, S. L., ... Mandell, D. S. (2016). Applying the policy ecology framework to Philadelphia's behavioral health transformation efforts. <i>Administration and Policy in Mental Health and Mental Health Services Research, 43</i>, 909–926.</p>
Assignment Deadline	N/A

Week 8	
Topic	Integrative Team Assignment #2: Designing and Specifying Implementation Strategies
Class Activity	Integrative Team Assignment #2
Assignment Deadline	Readiness Assurance Quiz #2

Week 9	
Topic	Research Designs
Required Reading	<p>1. Brown, C. H., Curran, G., Palinkas, L. A., Aarons, G. A., Wells, K. B., Jones, L., ... Cruden, G. (2017). An Overview of Research and Evaluation Designs for Dissemination and Implementation. <i>Annual Review of Public Health, 38</i>, 1-22.</p>

	<ol style="list-style-type: none"> 2. Mercer, S. L., DeVinney, B. J., Fine, L. J., Green, L. W., & Dougherty, D. (2007). Study designs for effectiveness and translation research: Identifying trade-offs. <i>American Journal of Preventive Medicine, 33</i>(2), 139–154. 3. Curran, G. M., Bauer, M., Mittman, B., Pyne, J. M., & Stetler, C. (2012). Effectiveness-implementation hybrid designs: Combining elements of clinical effectiveness and implementation research to enhance public health impact. <i>Medical Care, 50</i>(3), 217–226. 4. Dubois, J. M. & Prusaczyk, B. (2018). Ethical issues in dissemination and implementation research. In R. Brownson, G. Colditz, & E. Proctor (Eds.), <i>Dissemination and implementation research in health</i> (2nd ed.; pp. 63-72). New York: Oxford University Press.
Optional Reading	<ol style="list-style-type: none"> 1. Mazzucca, S., Tabak, R., Pilar, M., Ramsey, A. T., Baumann, A. A., Kryzer, E., Lewis, E. M., Padek, M., Powell, B. J., & Brownson, R. C. (2018). Variation in research designs used to test the effectiveness of dissemination and implementation strategies: A review. <i>Frontiers in Public Health, 6</i>(32), 1-10.
Additional Resources	<ol style="list-style-type: none"> 1. Brown, C. H. (2015). Designs that are used, or should be used, for dissemination and implementation research (http://cepim.northwestern.edu/calendar-events/2015-01-13)
Assignment Deadline	Individual Paper #3 Due

Week 10	
Topic	Measurement, Stakeholder Engagement, and Equity in Implementation
Required Reading	<ol style="list-style-type: none"> 1. Lewis, C. C., Proctor, E. K., & Brownson, R. C. (2018). Measurement issues in dissemination and implementation research. In R. Brownson, G. Colditz, & E. Proctor (Eds.), <i>Dissemination and implementation research in health</i> (2nd ed.; pp. 229-244). New York: Oxford University Press. 2. Palinkas, L. A., Aarons, G. A., Horwitz, S., Chamberlain, P., Hurlburt, M., & Landsverk, J. (2011). Mixed methods designs in implementation research. <i>Administration and Policy in Mental Health and Mental Health Services Research, 38</i>, 44–53. 3. Chambers, D. A. & Azrin, S. T. (2013). Partnership: A fundamental component of dissemination and implementation research. <i>Psychiatric Services, 64</i>, 509-511. 4. Ramanadhan, S., Davis, M. M., Armstrong, R., Baquero, B., Ko, L. K., Leng, J. C., Salloum, R. G., Vaughn, N. A., & Brownson, R. C. (2018). Participatory implementation science to increase the impact of evidence-based cancer prevention and control. <i>Cancer Causes & Control, 29</i>, 363-369. 5. Chinman, M., Woodward, E. N., Curran, G. M., & Hausmann, L. R. M. (2017). Harnessing implementation science to increase the impact of health equity research. <i>Medical Care, 55</i>(9, Suppl 2), S16-S23.
Optional Reading	<ol style="list-style-type: none"> 1. Weiner, B. J., Lewis, C. C., Stanick, C., Powell, B. J., Dorsey, C. N., Clary, A. S., Boynton, M. H., & Halko, H. (2017). Psychometric assessment of three

	<p>newly developed implementation outcome measures. <i>Implementation Science</i>, 12(108), 1-12.</p> <ol style="list-style-type: none"> 2. Shea, C. M., Jacobs, S. R., Esserman, D. A., Bruce, K., & Weiner, B. J. (2014). Organizational readiness for implementing change: A psychometric assessment of a new measure. <i>Implementation Science</i>, 9(7), 1-15. 3. Glasgow, R. E., & Riley, W. T. (2013). Pragmatic measures: What they are and why we need them. <i>American Journal of Preventive Medicine</i>, 45(2), 237–243. 4. Rabin, B. A., Lewis, C. C., Norton, W. E., Neta, G., Chambers, D., Tobin, J. N., ... Glasgow, R. E. (2016). Measurement resources for dissemination and implementation research in health. <i>Implementation Science</i>, 11(42), 1–9. 5. NCI. (2018). Qualitative methods in implementation science. (https://cancercontrol.cancer.gov/IS/docs/NCI-DCCPS-ImplementationScience-WhitePaper.pdf) 6. Creswell, J. W., Klassen, A. C., Clark, V. L. P., & Smith, K. C. (2011). <i>Best practices for mixed methods research in the health sciences</i>. Bethesda, Maryland: Office of Behavioral and Social Sciences Research. 7. Minkler, M., Salvatore, A. L., & Chang, C. (2018). Participatory approaches for study design and analysis in dissemination and implementation research. In R. Brownson, G. Colditz, & E. Proctor (Eds.), <i>Dissemination and implementation research in health</i> (2nd ed.; pp. 175-190). New York: Oxford University Press.
Assignment Deadline	N/A

Week 11	
Topic	Intersectionality in Implementation Science & Reporting Guidelines
Required Reading	<ol style="list-style-type: none"> 1. Moore & Straus. (n.d.). Intersectionality and knowledge translation interventions. Ethics protocol. 2. Wilson, P. M., Sales, A., Wensing, M., Aarons, G. A., Flottorp, S., Glidewell, L., Hutchinson, A., Presseau, J., Rogers, A., Sevdalis, N., Squires, J., & Straus, S. (2017). Enhancing the reporting of implementation research. <i>Implementation Science</i>, 12(13), 1-5. 3. Pinnock, H., Barwick, M., Carpenter, C. R., Eldridge, S., Grandes, G., Griffiths, C. J., ... Taylor, S. J. C. (2017). Standards for Reporting Implementation Studies (StaRI) statement. <i>BMJ</i>, 356(i6795).
Additional Resources	http://www.equator-network.org
Assignment Deadlines	N/A

Week 12	
Topic	Integrative Team Assignment #3: Designing an Implementation Study

Class Activity	Integrative Team Assignment #3
Assignment Deadlines	Readiness Assurance Quiz #3

Week 13	
Topic	De-Implementation & Sustainment
Required Reading	<ol style="list-style-type: none"> Nielsen, M. E. & Birken, S. A. (2018). Implementation science theories to inform efforts for de-implementation of urologic oncology care practices resulting in overuse and misuse. <i>Urologic Oncology: Seminars and Original Investigations</i>, 36, 252-256. Shelton RC, Cooper, B. R., & Stirman, S. W. (2018). The Sustainability of Evidence-Based Interventions and Practices in Public Health and Health Care. <i>Annual Reviews of Public Health</i>, 39(1), 55-76. Chambers DA, Glasgow RE, Stange KC. 2013. The dynamic sustainability framework: addressing the paradox of sustainment amid ongoing change. <i>Implementation Science</i>; 8: 117-127
Optional Reading	<ol style="list-style-type: none"> Helfrich, C. D., Rose, A. J., Hartmann, C. W., van Bodegom-Vos, L., Graham, I. D., Wood, S., Majerczyk, B., Good, C. B., Pogach, L. M., Ball, S. L., Au, D. H., & Aron, D. C. (2008). How the dual-process model of human cognition can inform efforts to de-implement ineffective and harmful clinical practices: A preliminary model of unlearning and substitution. <i>Journal of Effectiveness in Clinical Practice</i>, 24, 198-205. Colla, C. H., Mainor, A. J., Hargreaves, C., Sequist, T., & Morden, N. (2017). Interventions aimed at reducing use of low-value health services: A systematic review. <i>Medical Care Research and Review</i>, 74(5), 507-550. Scott, I. A., Soon, J., Elshaug, A. G., & Linder, R. (2017). Countering cognitive biases in minimizing low value care. <i>Medical Journal of Australia</i>, 206(9), 407-411. Schell, S.F., Luke, D.A., & Schooley, M.W. (2013). Public health program capacity for sustainability: A new framework. <i>Implementation Science</i>, 8, 15-30. Stirman SW, Kimberly J, Cook N. et al. 2012. The Sustainability of new programs and innovations: A review of the empirical literature and recommendations for future research. <i>Implementation Science</i>, 7(17), 1-19. Scheirer, M. A. (2013). Linking sustainability research to intervention types. <i>American Journal of Public Health</i>, 103(4), e73-e80. Scheirer, M. A., & Dearing, J. W. (2011). An agenda for research on the sustainability of public health programs. <i>American Journal of Public Health</i>, 101(11), 2059–2067.
Additional Resources	<ol style="list-style-type: none"> Chambers, D. C. (2013). Building a lasting impact: Implementation science and sustainability. (https://www.youtube.com/watch?v=J8vp1wKt_YI)

	<ol style="list-style-type: none"> 2. Wiltsey Stirman, S. & Dearing, J. W. (2017). A campfire conversation about the sustainability of health interventions. (https://www.youtube.com/watch?v=Udt1CN12w_Y&feature=youtu.be) 3. https://sustaintool.org
Assignment Deadline	Individual Paper #4 Due

Week 14	
Topic	Scale-up & Integrative Team Assignment #4: Enabling Sustainment & Scale-up
Required Reading	<ol style="list-style-type: none"> 1. Spicer, N., Bhattacharya, D., Dimka, R., Fanta, F., Mangham-Jefferies, L., Schellenberg, J., Tamire-Woldemariam, A., Walt, G., & Wickremasinghe, D. (2014). 'Scaling-up is a craft not a science': Catalysing scale-up of health innovations in Ethiopia, India and Nigeria. <i>Social Science and Medicine</i>, 121, 30-38. 2. Milat, A. J., Newson, R., King, L., Rissel, C., Wolfenden, L., Bauman, A., Redman, S., & Giffin, M. (2016). A guie to scaling up population health interventions. <i>Public Health Research & Practice</i>, 26(1): e2611604
Class Activity	Integrative Team Assignment #4
Assignment Deadline	N/A

Week 15	
Assignment Deadline	Final Individual Paper Due by 2:00 p.m. on 4-30-19