The following list of resources has been adapted from the National Cancer Institute (NCI) Training Institute for Dissemination and Implementation (TIDRIC) OpenAccess available at https://cancercontrol.cancer.gov/IS/training-education/tidirc/openaccess.html .

MODULE 1: *Introduction to Dissemination & Implementation*
Dr. Russ Glasgow, University of Colorado School of Medicine, Denver (32 mins.)

Suggested Readings

1. Bauer MS, Damschroder L, Hagedorn H, Smith J, Kilbourne AM. An introduction to implementation science for the non-specialist. *BMC Psychol*. 2015;3:32. doi:10.1186/s40359-015-0089-9.
2. Darnell D, Dorsey CN, Melvin A, Chi J, Lyon AR, Lewis CC. A content analysis of dissemination and implementation science resource initiatives: what types of resources do they offer to advance the field? *Implement Sci*. 2017;12(1):137. doi:10.1186/s13012-017-0673-x.
3. Pinnock H, Barwick M, Carpenter CR, et al. Standards for reporting implementation studies (StaRI) statement. *BMJ*. 2017;356:i6795. doi:10.1136/bmj.i6795.
4. Proctor EK, Powell BJ, Baumann AA, Hamilton AM, Santens RL. Writing implementation research grant proposals: ten key ingredients. *Implement Sci*. 2012;7:96. doi:10.1186/1748-5908-7-96.

Web Resources

1. DCCPS Implementation Science Sample Grants - https://cancercontrol.cancer.gov/IS/sample-grant-applications.html
2. Sample Grants hosted by UNC - https://tracs.unc.edu/index.php/services/proposal-development/sample-applications
3. NIH Anatomy of a Specific Aims Page - http://www.biosciencewriters.com/NIH-Grant-Applications-The-Anatomy-of-a-Specific-Aims-Page.aspx

Self-Reflection Question

1. What changes, if any, would you make to your aims page considering the resources and readings provided? Use online resources of funded grants as potential models for thinking through how aims could be revised.

MODULE 2: *Fidelity & Adaptation*
Dr. David Chambers, National Cancer Institute (38 mins.)

Suggested Readings

1. Chambers DA, Glasgow RE, Stange KC. The dynamic sustainability framework: addressing the paradox of sustainment amid ongoing change. Implementation Science. 2013 Dec;8(1):117.
2. Fernandez ME, Dolan Mullen P, Leeman J, Walker TJ, Escoffery C. Evidence-based cancer practices, programs, and Interventions. In: Chambers DA, Vinson CA, Norton WE, eds. *Advancing the Science of Implementation Across the Cancer Continuum*. New York, NY: Oxford University Press; 2018:21-40.
3. Stirman SW, Baumann AA, Miller CJ. The FRAME: an expanded framework for reporting adaptations and modifications to evidence-based interventions. *Implement Sci*. 2019;14(1):58. doi:10.1186/s13012-019-0898-y.

Self-Reflection Questions

1. Will you need to make any adaptations to your evidence-based intervention? If so, what aspects might need to be adapted, and what process would you use to guide those adaptations? Will you be considering how the intervention is likely to be adapted as it is delivered?
2. Will you be measuring and monitoring the fidelity with which the evidence-based intervention is delivered? If so, how? If not, why? To what degree is there evidence that associated level of fidelity with patient outcomes?

MODULE 3. *Overview of Dissemination & Implementation Models*
Dr. Wynne Norton, National Cancer Institute (26 mins.)

Suggested Readings

1. Chambers DA, Glasgow RE, Stange KC. The dynamic sustainability framework: addressing the paradox of sustainment amid ongoing change. *Implement Sci*. 2013;8:117. doi:10.1186/1748-5908-8-117.
2. Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implement Sci*. 2009;4:50. doi:10.1186/1748-5908-4-50.
3. Harden SM, Smith ML, Ory MC, Smith-Ray RL, Estabrooks PA, Glasgow RE. RE-AIM in clinical, community, and corporate settings: perspectives, strategies, and recommendations to enhance public health impact. *Front Public Health*. 2018;6:71. doi:10.3389/fpubh.2018.00071.
4. Moullin JC, Dickson KS, Stadnik NA, Rabin B, Aarons GA. Systematic review of the Exploration, Preparation, Implementation, Sustainment (EPIS) framework. *Implement Sci*. 20195;14(1):1. doi:10.1186/s13012-018-0842-6.
5. Strifler L, Cardoso R, McGowan J, et al. Scoping review identifies significant number of knowledge translation theories, models, and frameworks with limited use. *J Clin Epidemiol*. 2018;100:92-102. doi:10.1016/j.jclinepi.2018.04.008.

Web Resources
1. Dissemination & Implementation Models Site - http://www.dissemination-implementation.org/
2. EPIS Framework Site - https://episframework.com/

3. CFIR Guide - https://cfirguide.org/

Implementation Science Webinars Recordings on D&I Models:

1. Consolidated Framework for Implementation Research (CFIR) by Laura Damschroder
    https://www.youtube.com/watch?v=KAJ-oCJyWcs
2. Exploration, Preparation, Implementation, Sustainment (EPIS) by Greg Aarons -
    https://www.youtube.com/watch?v=OYw6g0F1rTs
    Interactive Systems Framework (ISF) by Abe Wandersman -
    https://www.youtube.com/watch?v=Ike0t6Fd_1k
3. Knowledge to Action Framework (KTA) by Sharon Straus -
    https://www.youtube.com/watch?v=ASQhwjfOYhw
4. Promoting Action on Research Implementation in Health Services Framework (PARIHS) by Alison Kitson &
    Gill Harvey - https://www.youtube.com/watch?v=t4Joti5RTzA

Self-Reflection Questions
1. Which model or combination of models is most applicable to your proposed study and why?
2. How might your selected model(s) guide or inform other aspects of your study (e.g., hypotheses, measures,
    outcomes, processes, selection of strategies, etc.)?

MODULE 4. *Introduction to D&I Measures*
Dr. Cara Lewis, Kaiser Permanente (35 mins.)

Suggested Readings

1. Palinkas LA, Mendon SJ, Hamilton AB. Innovations in mixed methods evaluations. *Annu Rev Public Health*.
    2019;40:423-442. doi:10.1146/annurev-publhealth-040218-044215.
2. Proctor E, Silmere H, Raghavan R, et al. Outcomes for implementation research: conceptual distinctions,
    measurement challenges, and research agenda. *Adm Policy Ment Health*. 2011;38(2):65-76.
    doi:10.1007/s10488-010-0319-7.
3. Rabin BA, Lewis CC, Norton WE, et al. Measurement resources for dissemination and implementation
    research in health. *Implement Sci*. 2016;11:42. doi:10.1186/s13012-016-0401-y.

Self-Reflection Questions
1. What outcomes are you measuring in your study, how are you measuring them, and why are you
    measuring them?
2. What processes are you measuring in your study, how are you measuring them, and why are you
    measuring them?

■ **MODULE 5.** *D&I Designs Overview*
Dr. Greg Aarons, Univ. of California San Diego (65 mins.)

Suggested Readings

1. Brown CH, Curran G, Palinkas LA, et al. An overview of research and evaluation designs for dissemination and implementation. *Annu Rev Public Health*. 2017;38:1-22. doi:10.1146/annurev-publhealth-031816-044215.

2. Curran GM, Bauer M, Mitman B, Pyne JM, Stetler C. Effectiveness-implementation hybrid designs: combining elements of clinical effectiveness and implementation research to enhance public health impact. *Med Care*. 2012;50(3):217-226. doi:10.1097/MLR.0b013e3182408812.
3. Palinkas LA, Aarons GA, Horwitz S, Chamberlain P, Hurlburt M, Landsverk J. Mixed method designs in implementation research. *Adm Policy Ment Health*. 2011;38(1):44-53. doi:10.1007/s10488-010-0314-z.

Web resources

1. NCI Implementation Science Webinars on D&I Models: Hybrid Designs by Geoff Curran
https://www.youtube.com/watch?v=qrOKhS1RWZk
2. Community Based Participatory Approaches by Nina Wallerstein & Bonnie Duran
https://www.youtube.com/watch?v=OGJiAzlcnQA

Self-Reflection Questions

1. What is your proposed study design? Why is that the best design to answer your research questions or hypotheses?
2. Will you be incorporating a mixed methods design into your study? If so, what design? If not, why?

■ **MODULE 6.** *Implementation Strategies*
Dr. Prajakta Adsul, National Cancer Institute (19 mins.)

Suggested Readings

1. Lewis CC, Klasnja P, Powell BJ, et al. From classification to causality: advancing understanding of mechanisms of change in implementation science. *Front Public Health*. 2018;6:136. doi:10.3389/fpubh.2018.00136.
2. Powell BJ, Fernandez ME, Williams NJ, et al. Enhancing the impact of implementation strategies in healthcare: a research agenda. *Front Public Health*. 2019;7:3. doi:10.3389/fpubh.2019.00003.
3. Proctor EK, Powell BJ, McMillen JC. Implementation strategies: recommendations for specifying and reporting**.** *Implement Sci*. 2013;8:139.

Self-Reflection Questions

1. What are the specific implementation strategies that you will be focusing on in your proposed research and how have you selected them?
2. How might you link specific implementation strategies to the context in which your work is set?

3. Bonus: Pick at least one implementation strategy of relevance to your work and describe it using Proctor's specifications.

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