



S&E Webinar Series: Evaluating Health Systems Change

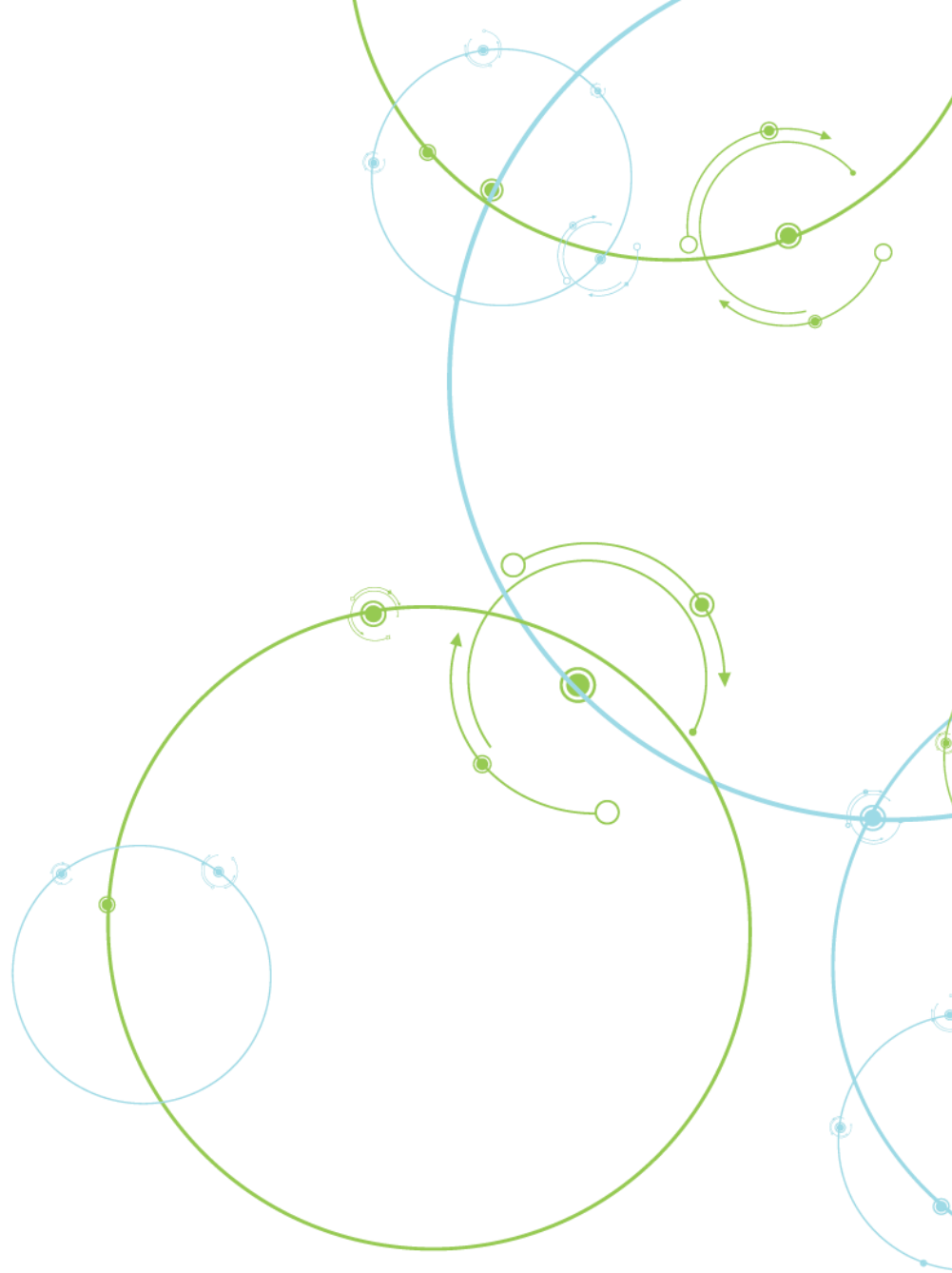
Tuesday, December 8, 2020
3:00 p.m. – 4:00 p.m.

Having trouble connecting?
Dial into the session by calling: +1 929 205 6099

Meeting ID: 846 9207 7369
Passcode: 963819

Agenda

- Introductions, Updates, & Session Housekeeping
- Speaker: Dr. Lucia Rojas-Smith
- Open Q&A Session
- Wrap-Up & Announcements



Evaluating Health Systems Change :

A Framework for Evaluating Complex System
Change Through a Social Determinants of
Health Lens

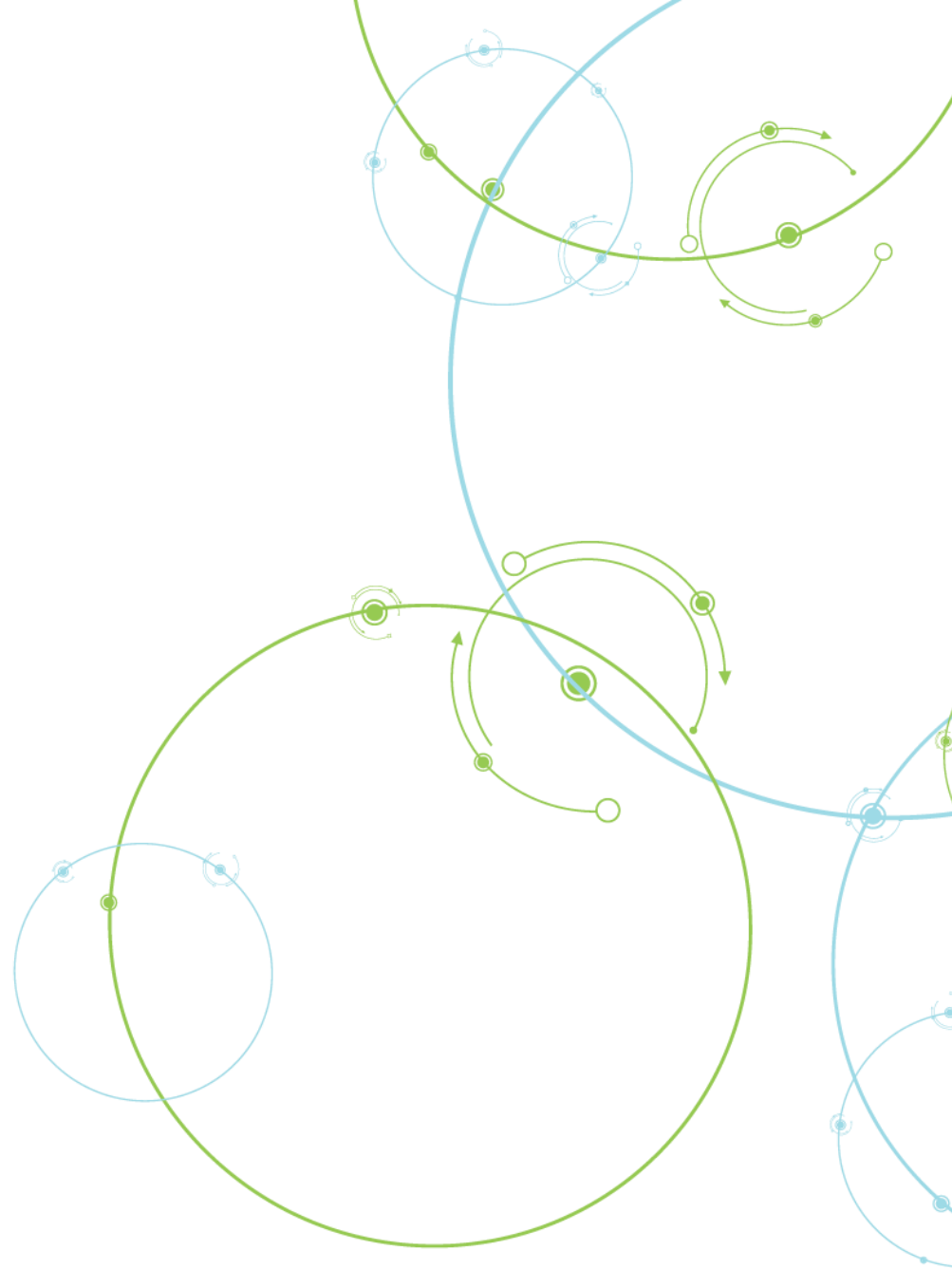
Lucia Rojas Smith DrPH

December 8, 2020



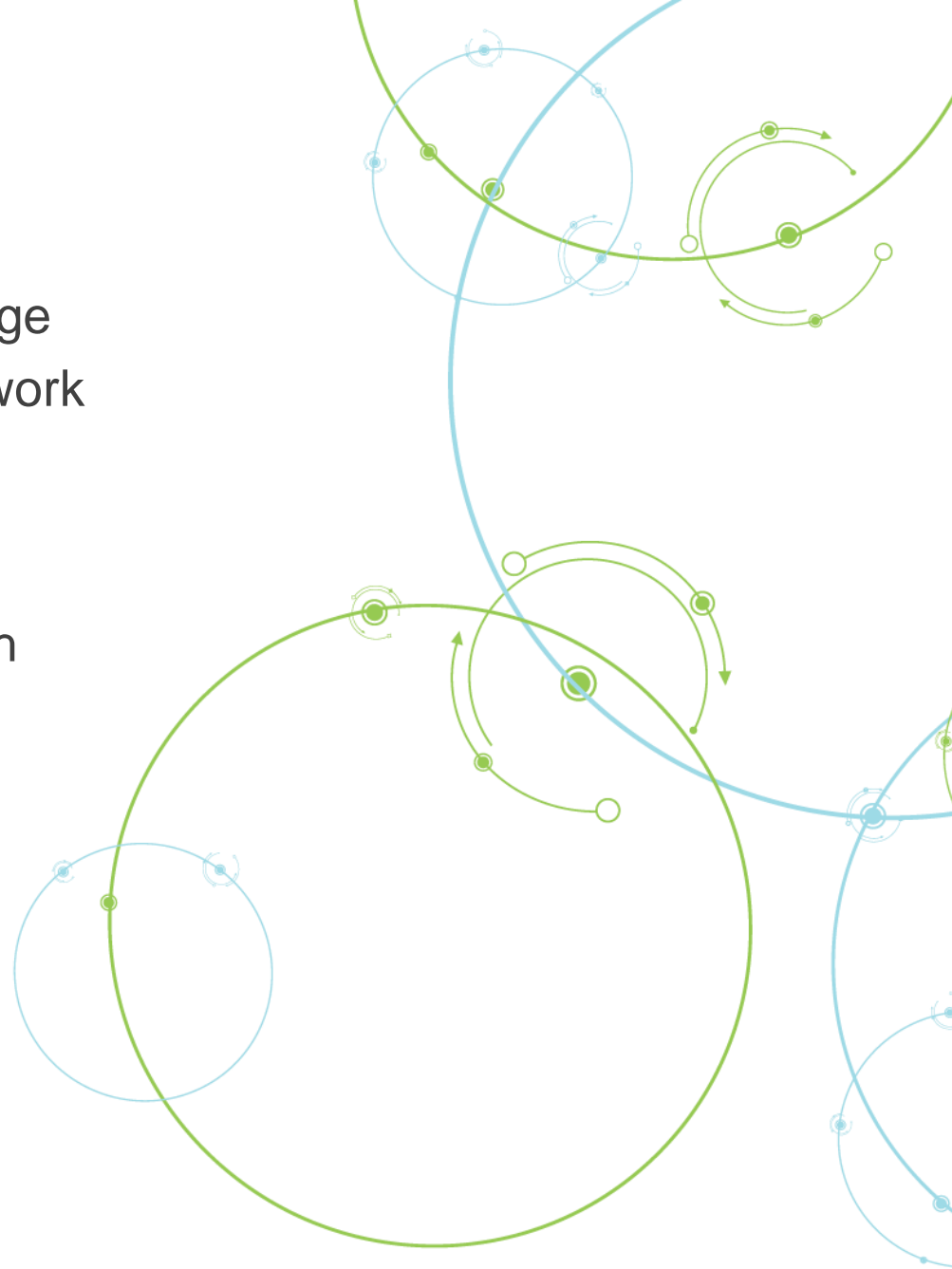
Acknowledgements

- Christine Bevc
- Amy Chepaitis
- Sara Jacobs



Presentation Overview

- Social determinants of health (SDoH) and health system change
- Implementation research framework for evaluating health systems change
- Evaluating tobacco cessation through implementation research and SDOH lens





Social Determinants of Health

The conditions in which people are born, grow, work, live, and age affect their health and well-being.¹

Why engage the health care sector?

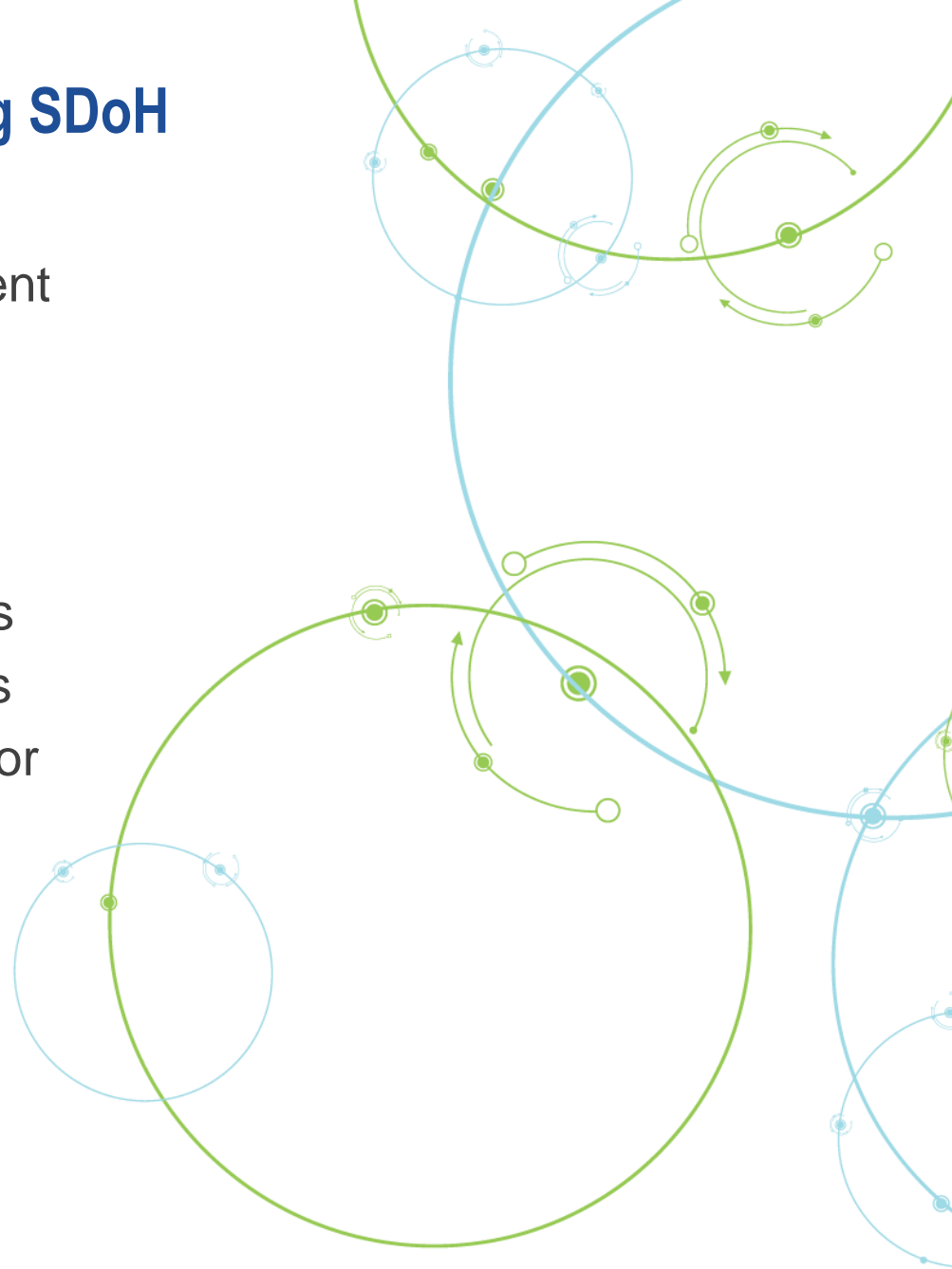
- SDoH underlie 40% modifiable health outcomes; and
- SDoH is a driver of health care costs²

² Hanleybrown, F., Kania, J., & Kramer, M. (2012). Channeling Change: Making Collective Impact Work. [Web log post.] *Stanford Social Innovation Review*. Retrieved from http://www.ssireview.org/blog/entry/channeling_change_making_collective_impact_work.



Role of Health Care in Addressing SDoH

- Screening for social needs in patient populations
- Connecting patients to services to promote healthy behaviors
- Connecting patients to social services and community resources
- Engaging with community partners
- Using community benefit monies for Community Health Needs Assessment



SDoH and Health System Change

- Unnecessary and costly healthcare utilization linked to SDoH³
- Screening for SDoH is becoming more widespread ⁴
 - 33% of hospitals and 8% practices report no screening
- Evaluations lack common health and healthcare utilization outcomes to assess effectiveness⁵

³ Iovan S, Lantz PM, Allan K, Abir M. Interventions to decrease use in prehospital and emergency care settings among super-utilizers in the united states: A systematic review. *Med Care Res Rev*. 2019:1077558719845722. Epub ahead of print. PMID: 31027455. DOI: [10.1177/1077558719845722](https://doi.org/10.1177/1077558719845722).

⁴ Frazee TK, Brewster AL, Lewis VA, et al. Prevalence of screening for food insecurity, housing instability, utility needs, transportation needs, and interpersonal violence by US physician practices and hospitals. *JAMA Netw Open*. 2019;2(9):e1911514. Epub ahead of print. DOI:[10.1001/jamanetworkopen.2019.11514](https://doi.org/10.1001/jamanetworkopen.2019.11514)

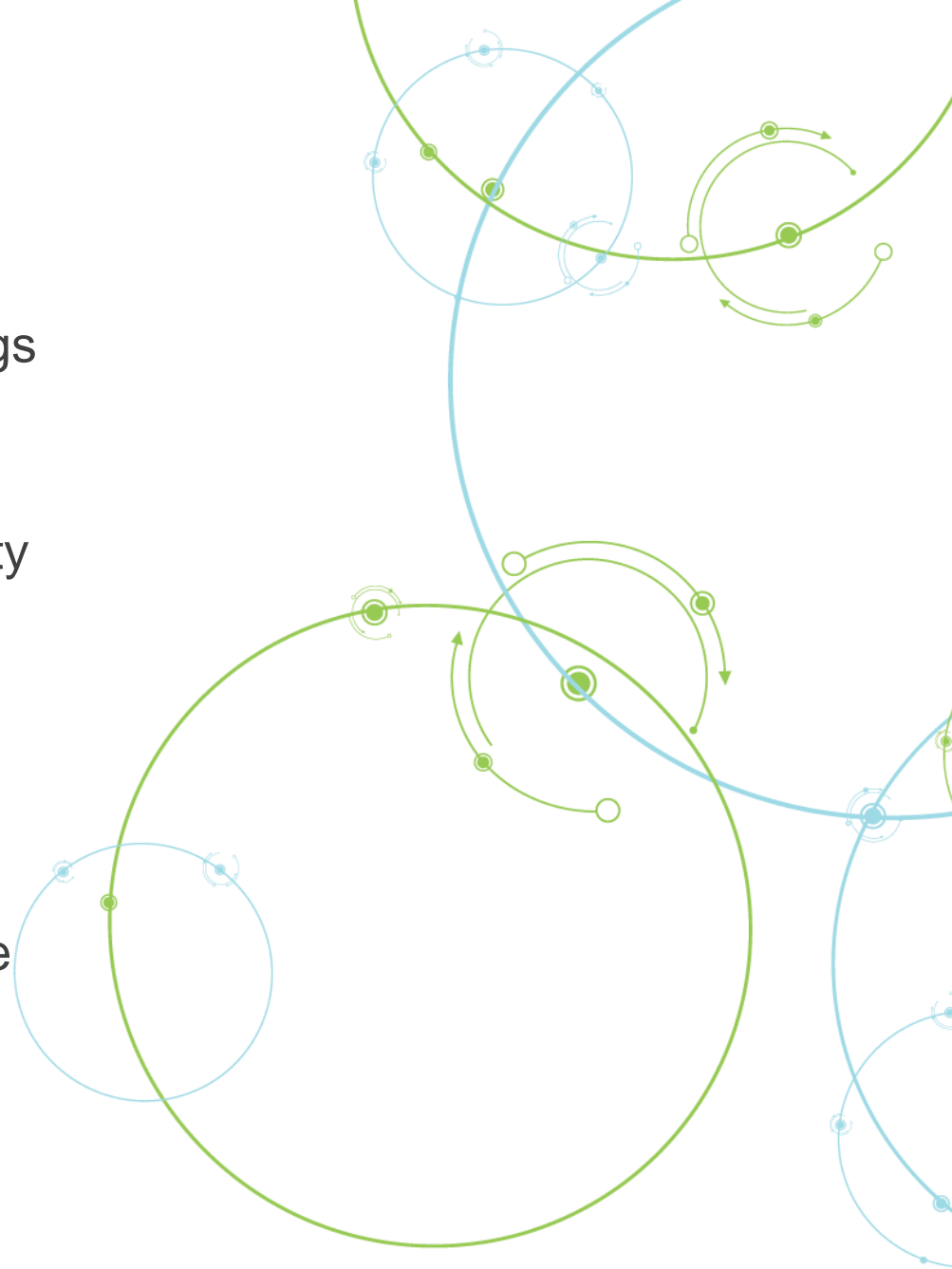
⁵ Gottlieb LM, Wing H, Adler NE. A systematic review of interventions on patients' social and economic needs. *Am J Prev Med*. 2017;53(5):719-729. PMID: 28688725. DOI: [10.1016/j.amepre.2017.05.011](https://doi.org/10.1016/j.amepre.2017.05.011)



Addressing SDOH through Implementation Science Methods

Implementation Science

- Translation and scaling of interventions to “real-world” settings
- Understand why and how interventions work (or don't)
- Enables adoption and sustainability
- Well-suited for complex system interventions
 - Targets change at individual, organizational, system, community
 - Adapts and evolves across time
 - High-degree of contextual variability
- Facilitates attribution



Predecessors

2009 A unified framework for implementation research in health care

Implementation Science 

Research article **Open Access**

Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science

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Implementation Science 2009, 4:30 doi:10.1186/1745-2875-4-30 Accepted: 7 August 2009

This article is available from: <http://www.implementationscience.com/content/4/1/30>

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Abstract

Background: Many interventions found to be effective in health services research studies fail to translate into meaningful patient care outcomes across multiple contexts. Health services researchers recognize the need to evaluate not only summary outcomes but also formative outcomes to assess the extent to which implementation is effective in a specific setting, prolongs sustainability, and promotes dissemination into other settings. Many implementation theories have been published to help promote effective implementation. However, there overlaps considerably in the constructs included in individual theories, and a comparison of theories reveals that such is missing important constructs included in other theories. In addition, terminology and definitions are not consistent across theories. We describe the Consolidated Framework For Implementation Research (CFIR) that offers an overarching typology to promote implementation theory development and verification about what works where and why across multiple contexts.

Methods: We used a snowball sampling approach to identify published theories that were evaluated to identify constructs based on strength of conceptual or empirical support for influence on implementation, consistency in definitions, alignment with our own findings, and potential for measurement. We combined constructs across published theories that had different labels but were redundant or overlapping in definition, and we parceled apart constructs that conflated underlying concepts.

Results: The CFIR is composed of five major domains: intervention characteristics, outer setting, inner setting, characteristics of the individuals involved, and the process of implementation. Eight constructs were identified related to the intervention (e.g., evidence strength and quality), four constructs were identified related to outer setting (e.g., patient needs and resources), 12 constructs were identified related to inner setting (e.g., culture, leadership engagement), five constructs were identified related to individual characteristics, and eight constructs were identified related to process (e.g., plan, evaluate, and reflect). We present explicit definitions for each construct.

Conclusions: The CFIR provides a pragmatic structure for approaching complex, interacting, multi-level, and transient states of constructs in the real world by embracing, consolidating, and unifying key constructs from published implementation theories. It can be used to guide formative evaluations and build the implementation knowledge base across multiple studies and settings.

Page 1 of 15
(page number not for citation purposes)

2014 Adapting CFIR for Complex System Interventions

Methods Research Report

Contextual Frameworks for Research on the Implementation of Complex System Interventions

Prepared by:
Agency for Healthcare Research and Quality
U.S. Department of Health and Human Services
540 Guilford Road
Rockville, MD 20850
www.ahrq.gov


Contract No. 290-2007-10056-1

Prepared by:
RTI International—University of North Carolina at Chapel Hill Evidence-based Practice Center
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Stephanie Texeira-Poit, M.S.


AHRQ Publication No. 14-EHC014-EF
March 2014

2017 Applying adapted CFIR to a broad range of complex innovations in health care

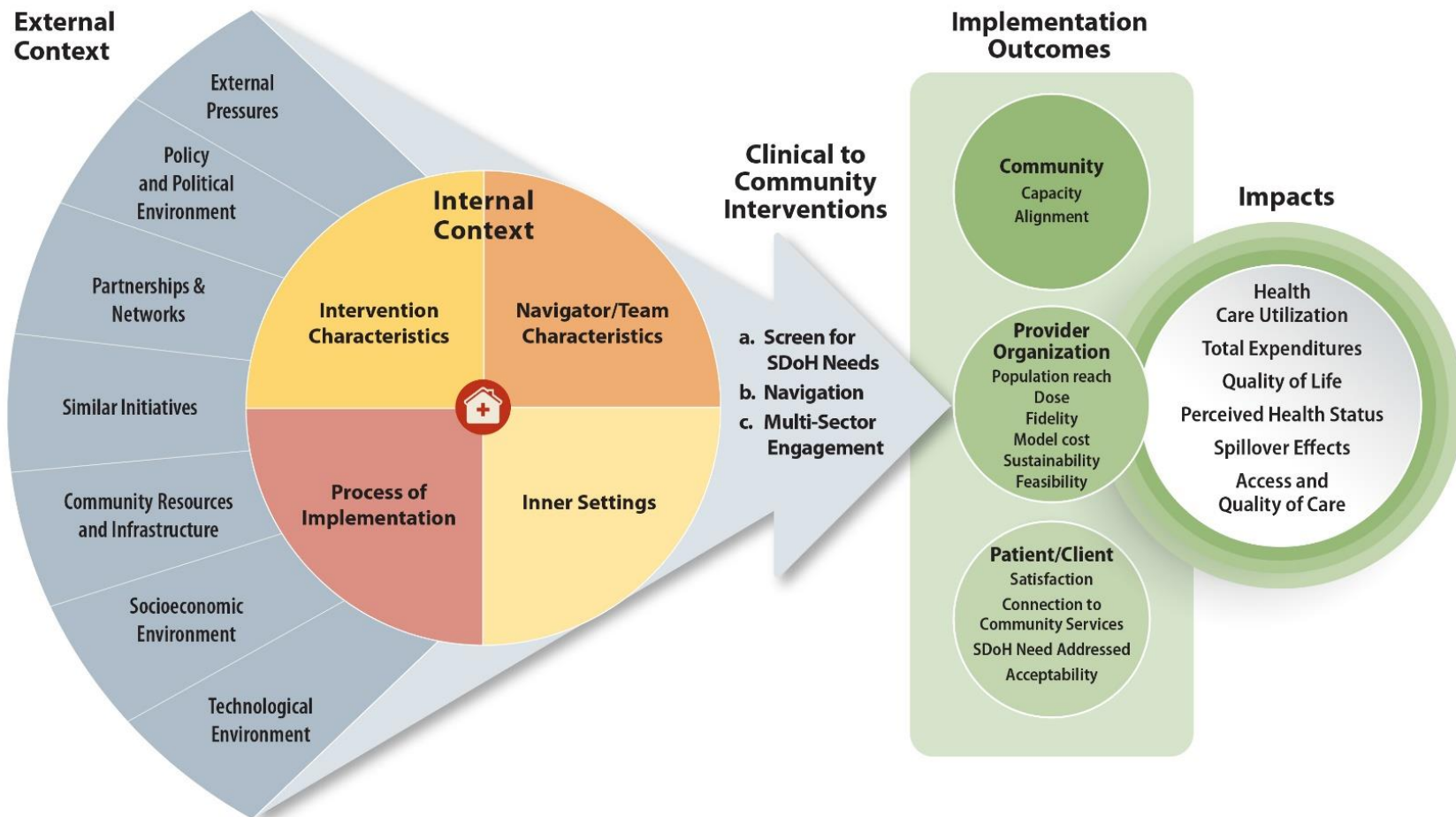


**Evaluation of the Health Care Innovation Awards:
Community Resource Planning, Prevention, and Monitoring
THIRD ANNUAL REPORT ADDENDUM**

<p>Prepared for</p> <p>Lynn Masecior, PhD, MBA Jean Galloway, PhD, RN Center for Medicare & Medicaid Innovation Centers for Medicare & Medicaid Services 7500 Security Boulevard Baltimore, MD 21244</p>	<p>Prepared by</p> <p>Lucia Riggs Smith, DPH, Project Director Peter Amico, PhD, Associate Project Director Tom Hooger, PhD, Claims Analysis Leader Sara Jacobs, PhD, Provider Survey Leader Julianne Parris, PhD, Qualitative Analysis Leader Jeanette Renaud, PhD, Awardee Data Leader</p>	<p>RTI International P.O. Box 12194 Research Triangle Park, NC 27709-2194 http://www.rti.org/</p>
<p>August 2017</p>	<p>RTI Qualitative Team RTI Claims Analysis Team RTI Provider Survey Team RTI Awardee Secondary Data Team</p>	<p>RTI Project Number 0212790.010.002.004 Contract H4GSM-500-5010-000211 Order H4S-500-10010</p>



Health System Change Evaluation



Adapted from: Jacobs, S. R., Rojas Smith, L., Chepaitis, A. E., Bevc, C. A., & Suvada, K-A. (2019). *Developing an evaluation framework for accountable health communities and other initiatives aimed at addressing social determinants of health*. Poster session presented at 12th Annual conference on the science of dissemination and implementation, Arlington, VA.

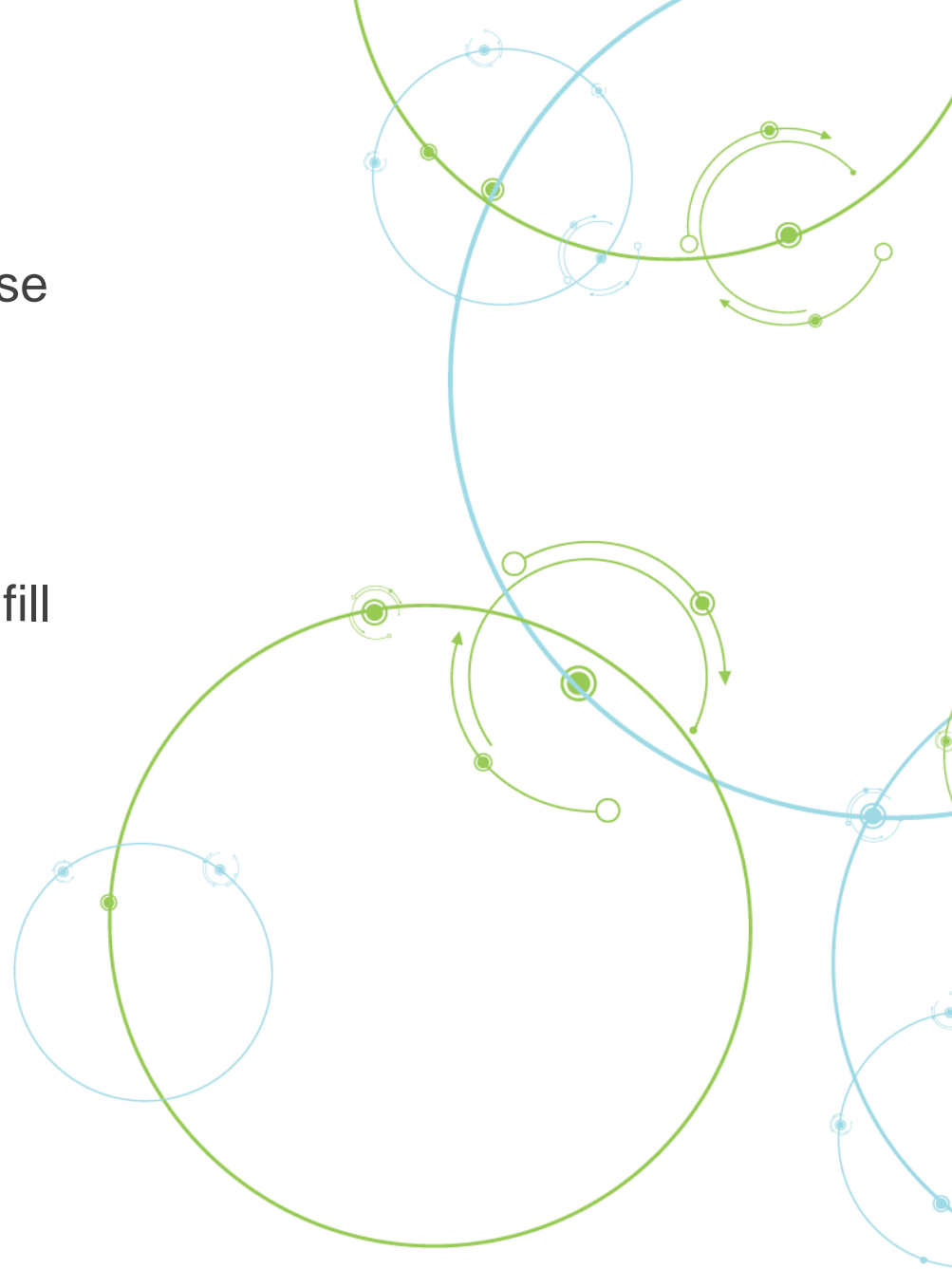
External Context

- External pressure
 - Marketing environment
 - Pricing density
 - Similar/reinforcing tobacco-free initiatives
- Policy environment
 - Taxes, sales restrictions
 - Tobacco free policies
- Availability/adequacy of community resources
 - Quit lines, cessation programs
 - Culturally appropriate, comprehensive
- Prevalence of tobacco use
- Prevalence of social needs



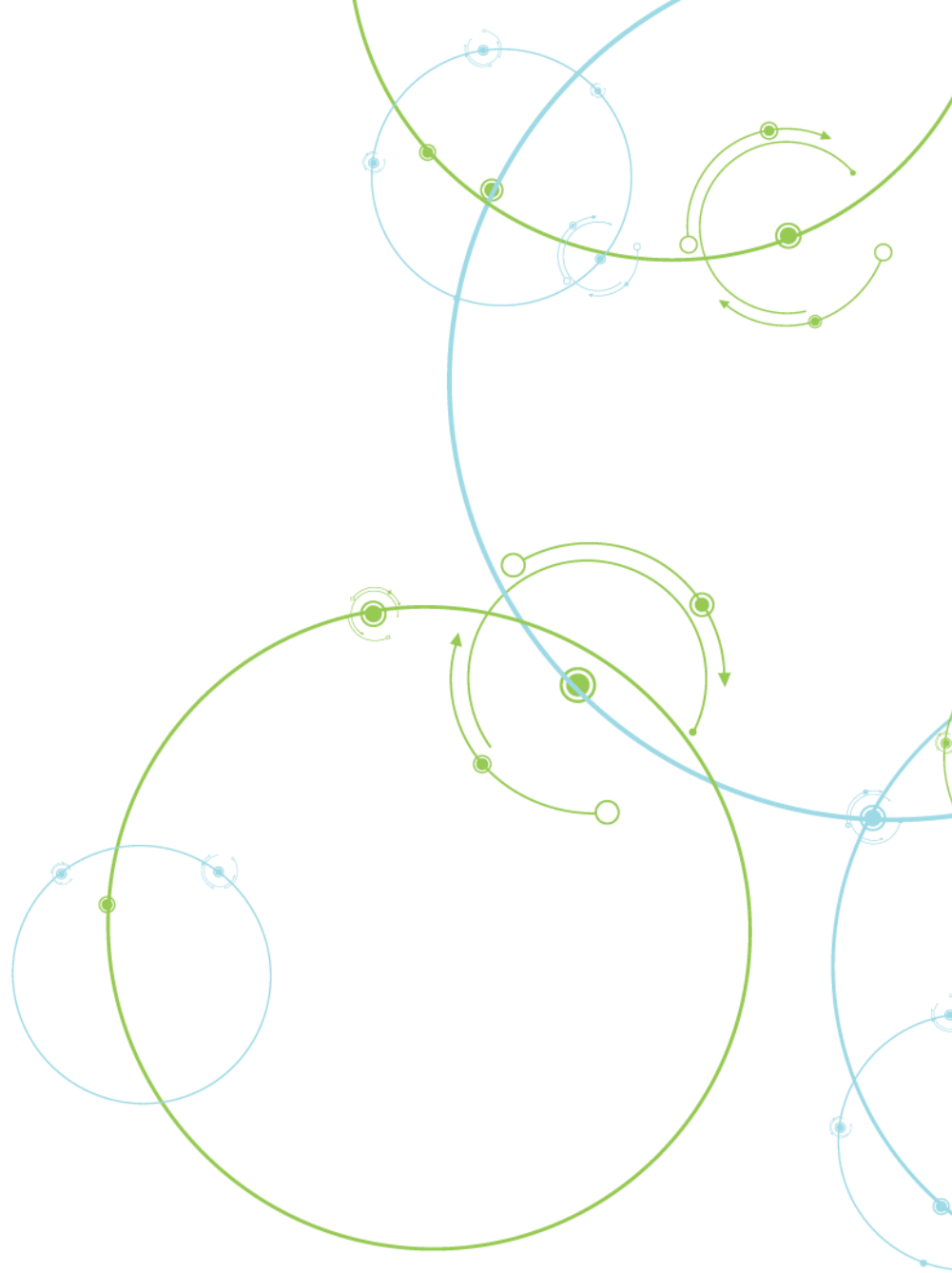
Evaluation Considerations

- How current/useful are public use data sets?
 - For tobacco prevalence
 - For SDoH
- What gaps can qualitative data fill in?
- Are you accounting for/recognizing unexpected events?
 - COVID-19



Internal Context

- Who, What, Where, When
- Readiness to launch/scale up
- Quality of planning and execution
- Staff skills, training, morale
- Changes to workflow
- Leadership
- Communication and teaming
- Data for decision-making

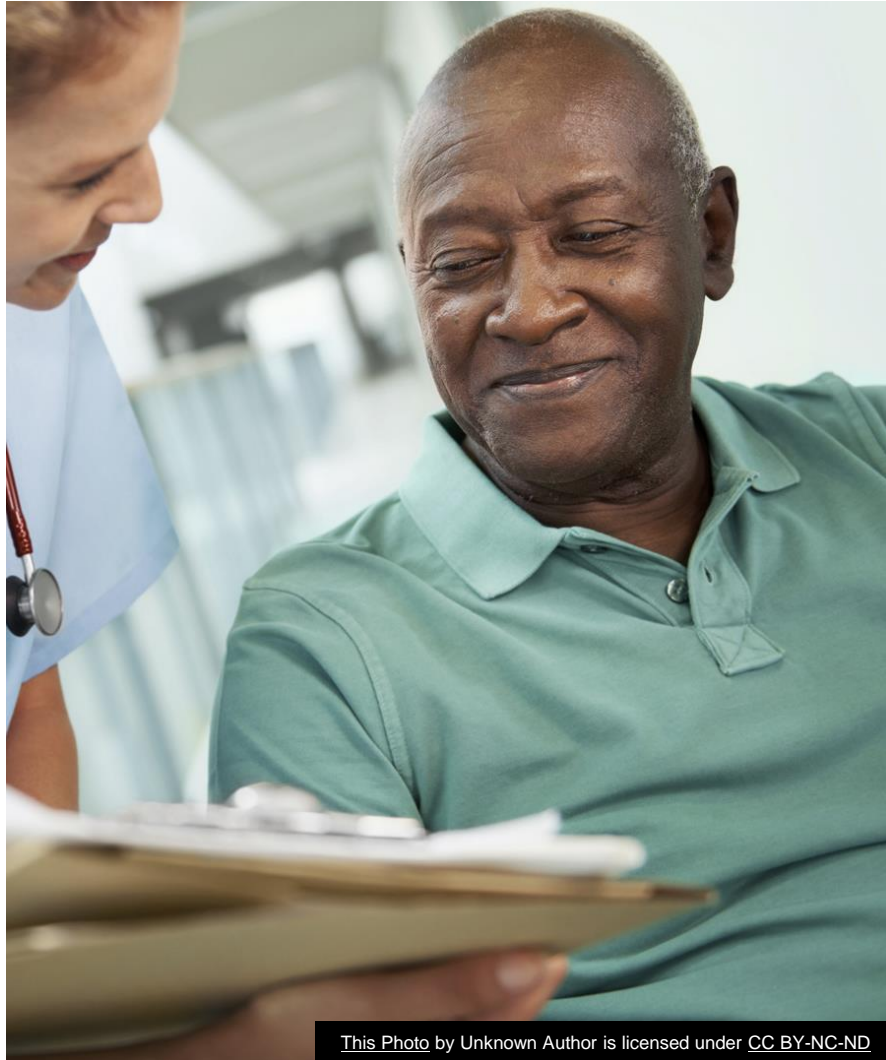


Evaluation Considerations: Internal Context

- How much detail and granularity to characterize who, what, when and where?
- How adequate/accessible are the sources of data (EMR, screenings)
 - For sociodemographic characteristics
 - For tobacco use
- Who is most directly affected by the implementation or able to influence it?
- Which clinical decision tools, order sets, workflows, channels of communication are affected? Is the intervention compatible?
- Which competencies, attributes are most essential for execution?
-



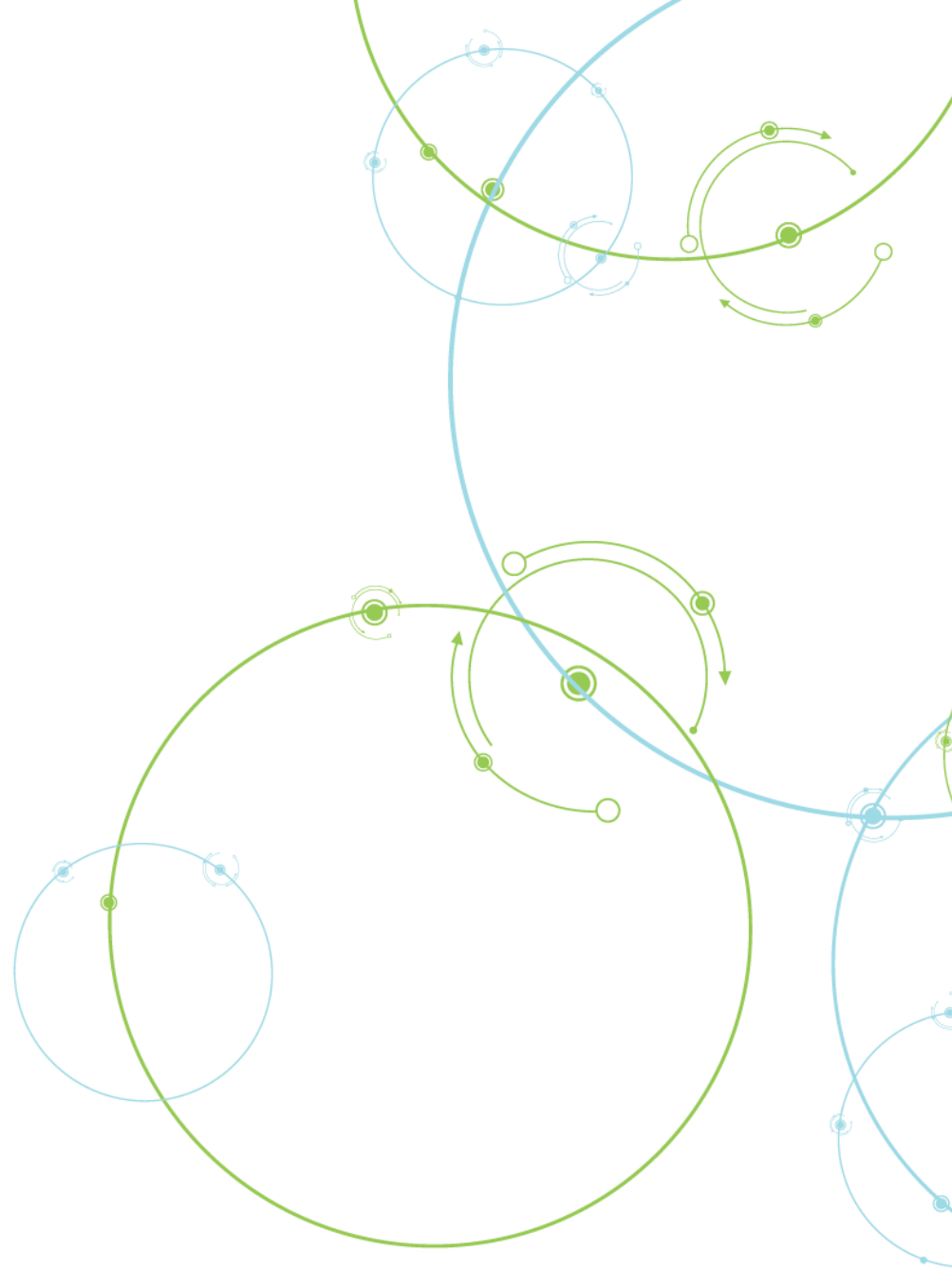
Implementation Outcomes



- Reach
 - Intended population
 - Sufficient to make an impact
- Dose
- Fidelity
- Provider adoption
- Patient acceptance, satisfaction and engagement
- Social needs are addressed

Evaluation Considerations: Implementation Outcomes

- Who needs to be reached?
 - Age, gender, race, ethnicity, SES, co-morbidities
- How much dose (exposure) is necessary?
 - Screening fatigue
- What is the relative importance of intervention fidelity versus adaptation?
- What is feasible and sustainable?
 - Workflows, IT, Staffing

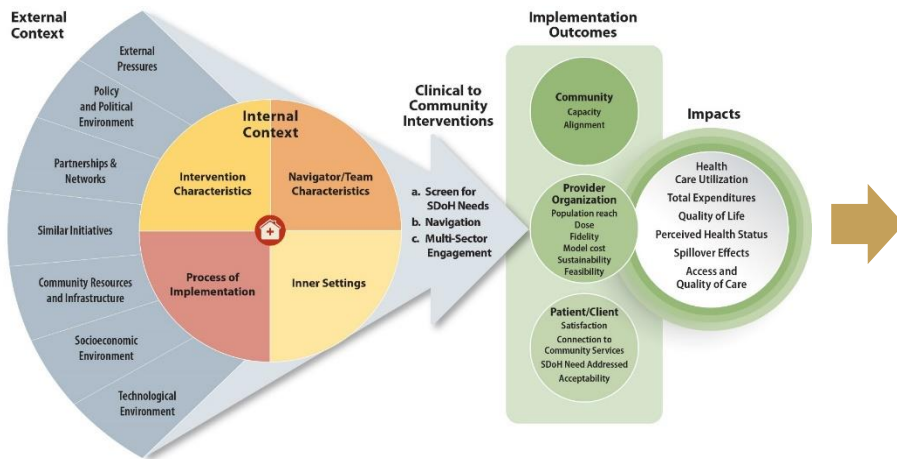


Implementation Outcomes

- Consider outcomes and indicators at different levels for the health systems change implemented
 - Healthcare facility
 - Proportion of units/departments that have adopted screening protocols and/or workflow changes that support screening (Scale up)
 - Providers
 - Proportion and type of providers who are using the intervention
 - Patients
 - Proportion screened for commercial tobacco use by SDoH and population characteristics (e.g., race/ethnicity, behavioral health, etc.)



Intervention Outcomes



Short and Intermediate

Screening, advice to quit, referrals

Use of evidence-based cessation services

Quit attempts

Long-Term

Health behaviors: Tobacco, diet, physical activity

Health maintenance: Chronic disease

Health status: Perceived & clinical outcomes

Health care utilization: Emergency, specialty & primary care

Health care costs: ROI and per patient spending

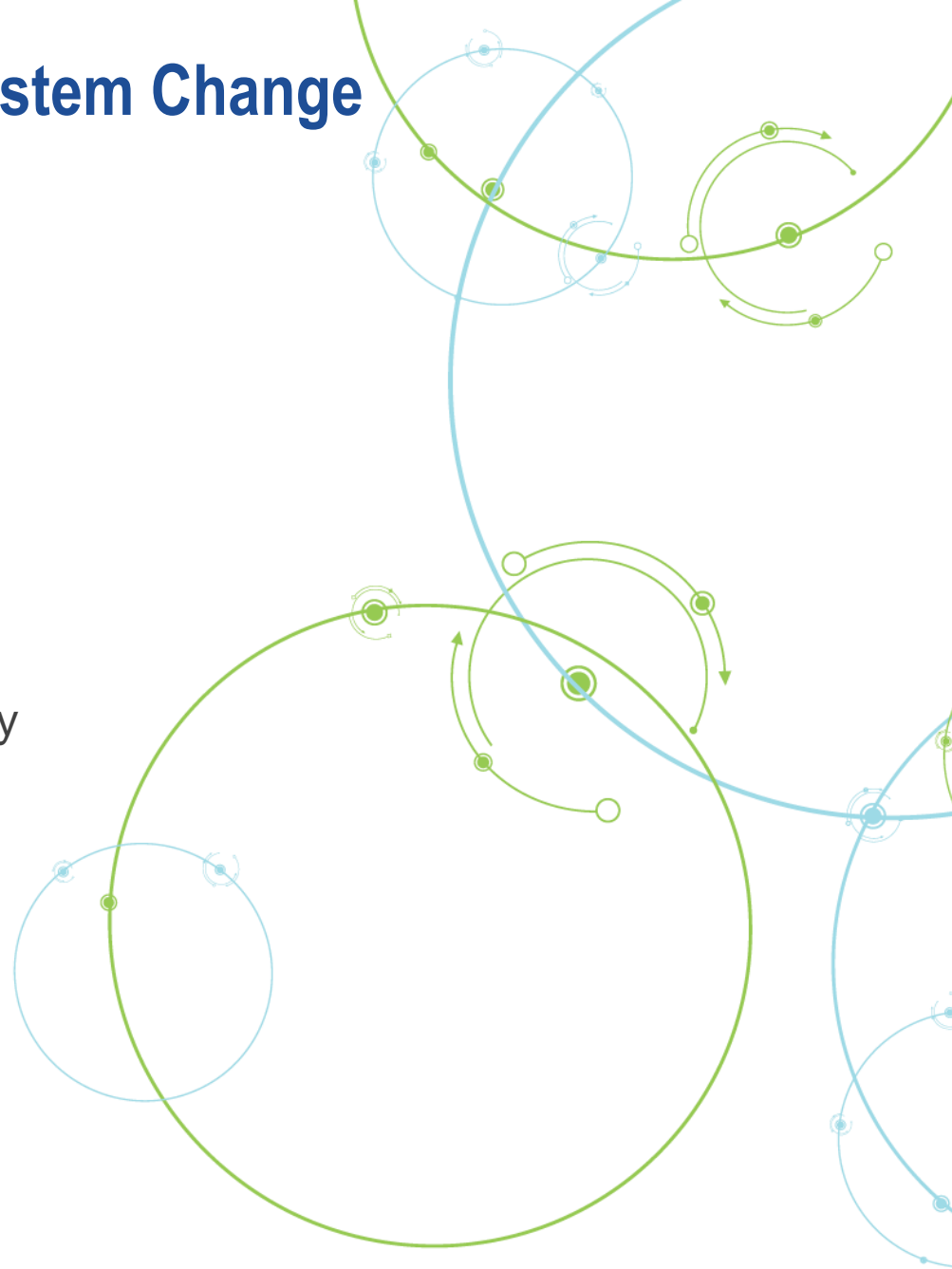
Evaluation Considerations: Intervention Outcomes

- Can you attribute changes to the intervention?
 - Randomized control groups
 - Matched comparison groups
 - Stepped wedge designs ideal for “real world” study settings
- Is lack of change due to Implementation failure or flawed intervention design?
- Timeframe required to detect outcomes
- ROI to whom?
 - Payers, health care system, the community



Lessons Learned for Health System Change

- Start simple
 - Break down complex interventions into smaller units of change
- Iterate- PDSA, CQI
- Focus on what you can measure well
 - NQF-tobacco control clinical quality measures
 - Quality existing registries, EMR, screening protocols
 - Decide what is good enough
- Establish the evaluation design before implementation

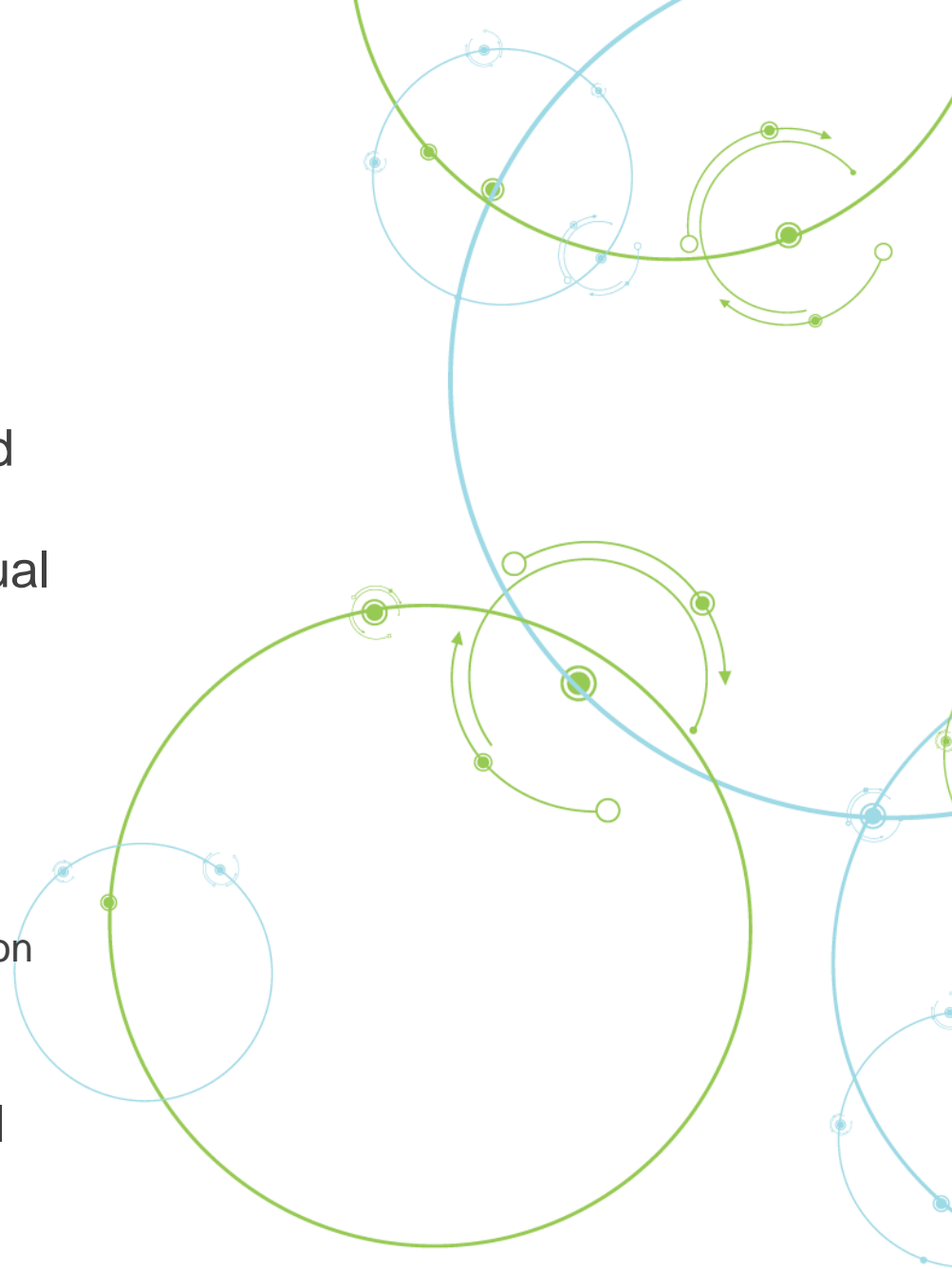




Future Developments

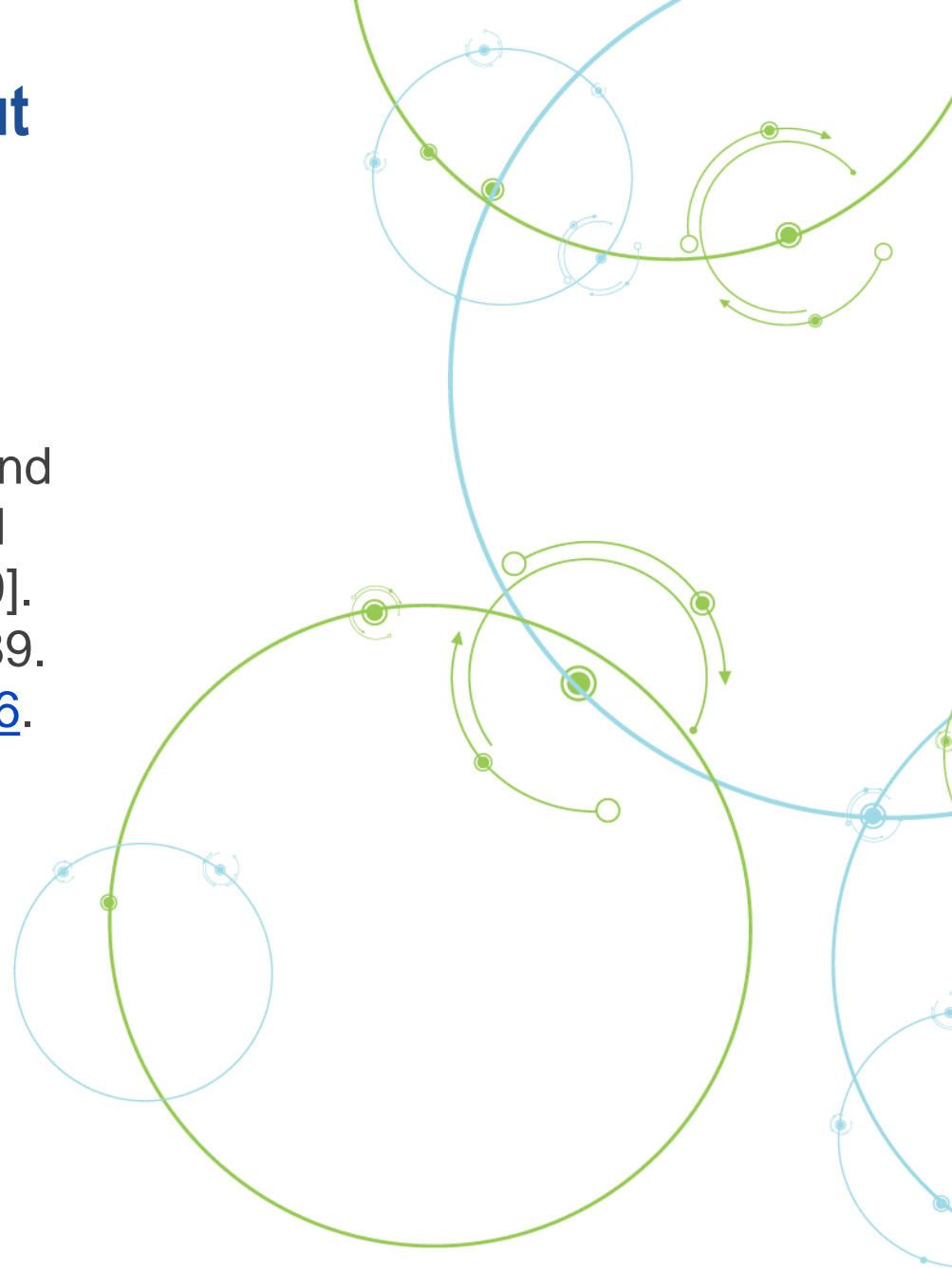
Health Equity and Disparities

- Systemic racism
 - Community-level
 - Institutional-level
- Differences in implementation and interventions outcomes by race/ethnicity, class, gender, sexual orientation, disability status
- Unintended consequences of identifying social risk
 - Bias in care
 - Deepening stigma and discrimination
- Changes in societal attitudes and beliefs regarding the role of social determinants in health



Other frameworks to check out

- Gurewich D, Garg A, Kressin NR. Addressing social determinants of health within healthcare delivery systems: a framework to ground and inform health outcomes [published online ahead of print, 2020 Feb 19]. J Gen Intern Med. PMID: 32076989. DOI: [10.1007/s11606-020-05720-6](https://doi.org/10.1007/s11606-020-05720-6).



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- Jacobs, S. R., Rojas Smith, L., Chepaitis, A. E., Bevc, C. A., & Suvada, K-A. (2019). Developing an evaluation framework for accountable health communities and other initiatives aimed at addressing social determinants of health. Poster session presented at 12th Annual conference on the science of dissemination and implementation, Arlington, VA.



Thank you

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