

# **HOW TO APPLY THE MULTIPHASE OPTIMIZATION STRATEGY (MOST) IN YOUR INTERVENTION DEVELOPMENT RESEARCH**

## **Module 2**

**The preparation phase: Laying the foundation for successful optimization**

**Lesson 4: The appropriate level of granularity for intervention components**



**NYU**

**SCHOOL OF GLOBAL  
PUBLIC HEALTH**

**Intervention Optimization Initiative**

# **This course was developed by**

**Linda M. Collins**

School of Global Public  
Health

New York University

**Kate Guastaferro**

College of Health and  
Human Development

The Pennsylvania State  
University

(narrator)



**NYU**

**SCHOOL OF GLOBAL  
PUBLIC HEALTH**

**Intervention Optimization Initiative**

# In the previous lesson you learned how to:

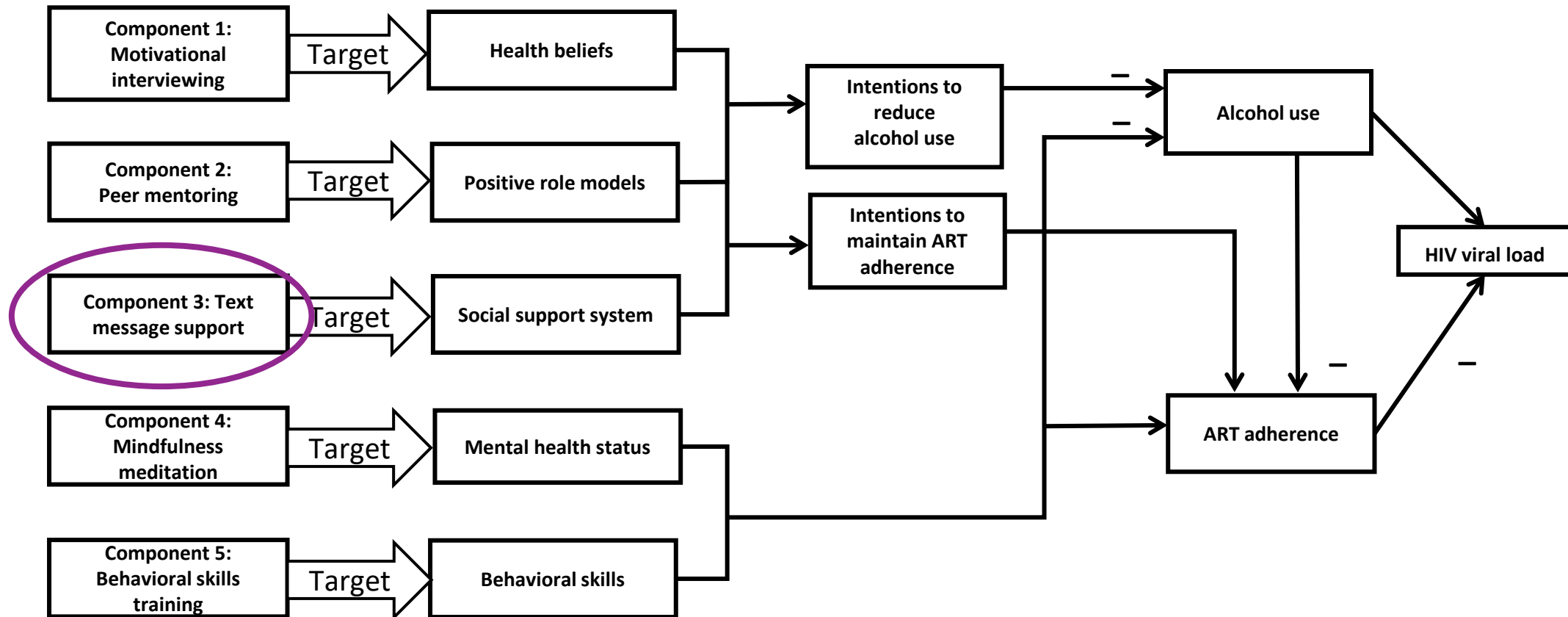
- Create the causal part of a conceptual model
- Use the causal part of the conceptual model to help identify which intervention components are needed



# **In this lesson you will learn how to:**

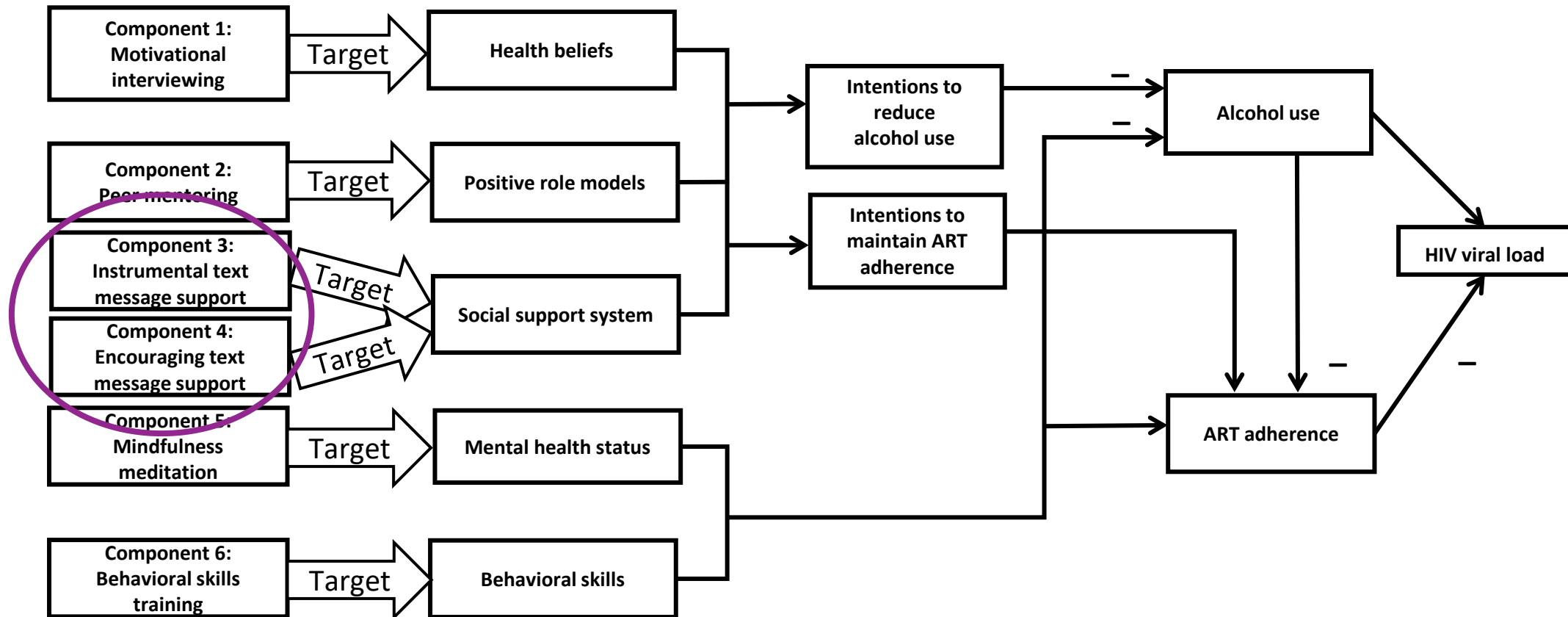
- Select an appropriate level of granularity for intervention components

# Components may be conceptualized at different levels of granularity



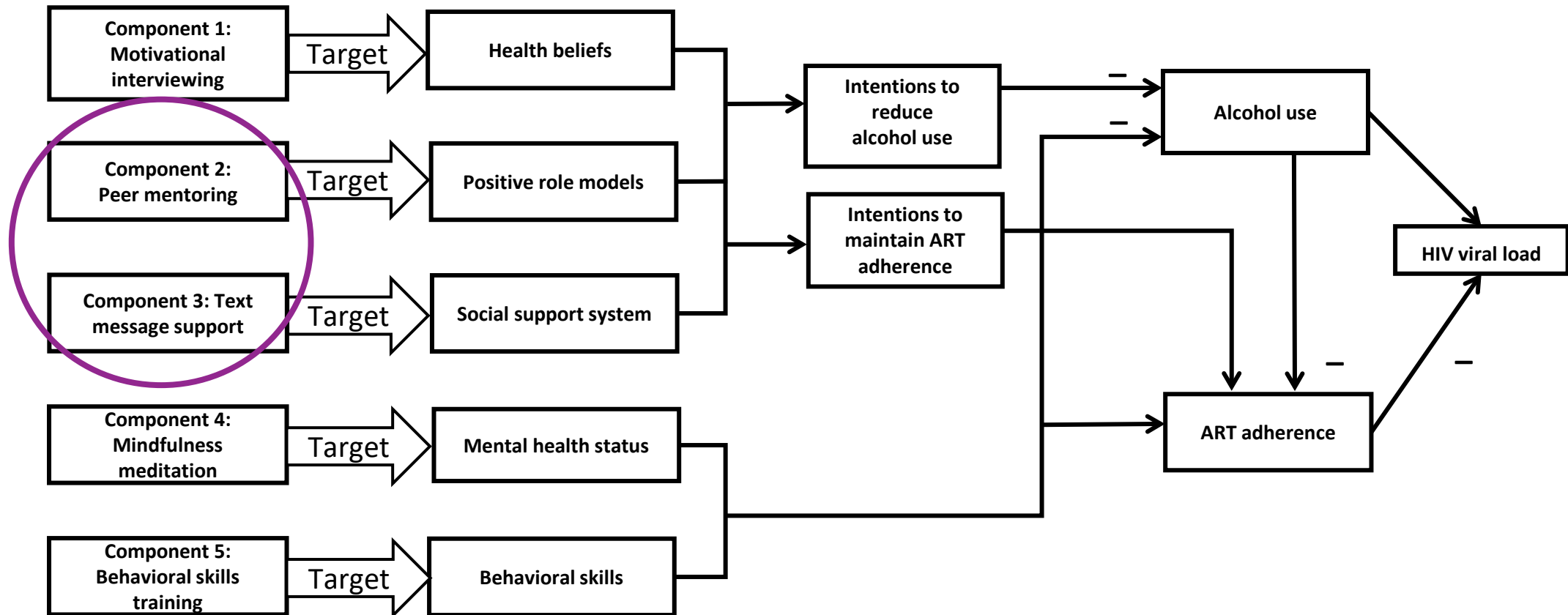
Adapted from Collins, L.M., Kugler, K.C., & Gwadz, M.V. (2016)

# An example of a finer, more micro level of granularity.



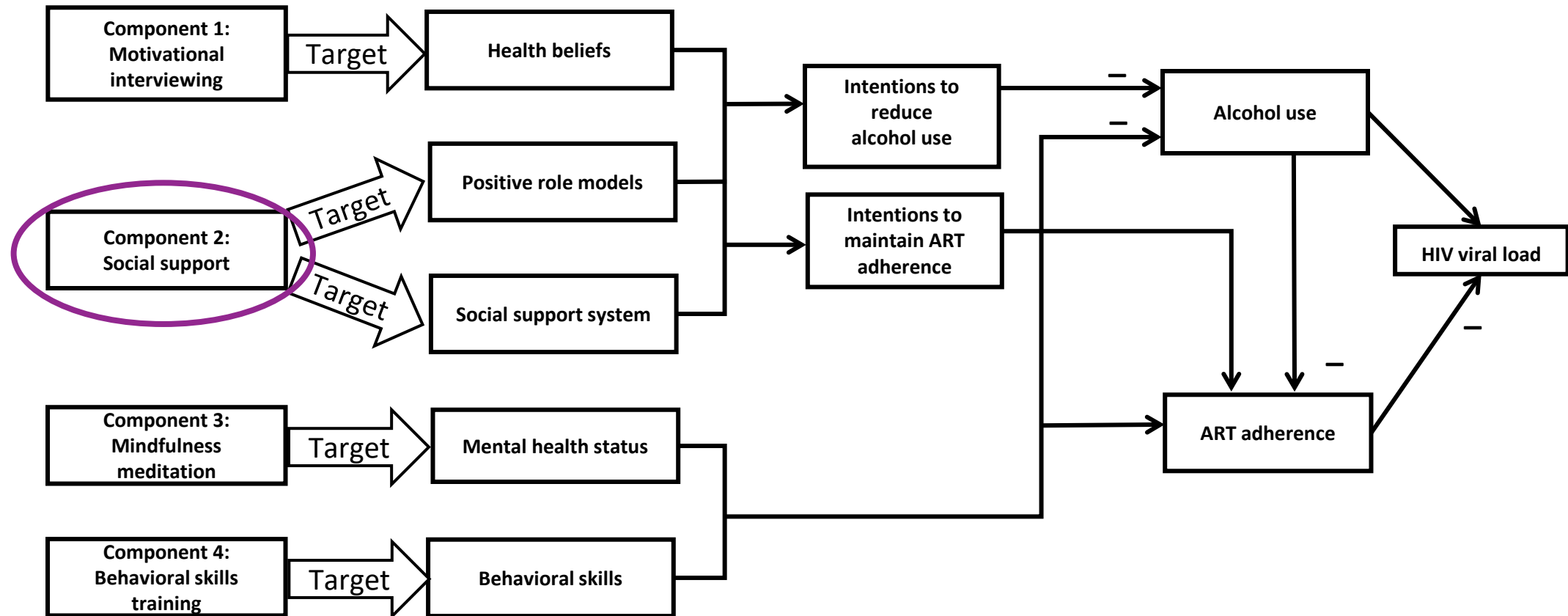
Adapted from Collins, L.M., Kugler, K.C., & Gwadz, M.V. (2016)

# Components 2 and 3 could be combined...



Adapted from Collins, L.M., Kugler, K.C., & Gwadz, M.V. (2016)

**...to form a new component at a coarser, more macro level of granularity.**



Adapted from Collins, L.M., Kugler, K.C., & Gwadz, M.V. (2016)



# Finer granularity: Pros

- More precision in expression of links between behavior change techniques and mediators
- More information available in optimization trial
  - e.g. Do both instrumental text message support and encouraging text message support have an effect on perceived strength of social support system?

# Finer granularity: Cons

- Generally means more components, therefore more complex optimization trial

# Coarser granularity: Pros

- Generally means fewer components, therefore less complex optimization trial
- May be best course of action in less mature fields

# Coarser granularity: Cons

- Less precision in expression of link between behavior change techniques and mediators
- Less information obtained in optimization trial
- May be interpretational challenges

# Granularity of components: General recommendations

- Go with as fine a level of granularity as
  - The science will support AND...
  - ...is feasible and manageable

# Granularity of components: General recommendations

- If you are working in a relatively new field, a relatively coarse level may be advisable
  - As time goes on and more knowledge is gained, a finer level of granularity may become appropriate

# Granularity of components: General recommendations

- Where possible, try not to have a component target >1 mediator
  - However, sometimes it is necessary to have a component target >1 mediator

# **In this lesson you learned how to:**

- Select an appropriate level of granularity for intervention components



# In the next lesson you will learn how to:

- Express moderation in conceptual models



**NYU**

SCHOOL OF GLOBAL  
PUBLIC HEALTH

Intervention Optimization Initiative

# References cited

- Collins, L.M. (2018). Optimization of Behavioral, Biobehavioral, and Biomedical Interventions: The Multiphase Optimization Strategy (MOST). New York: Springer.
- Collins, L.M., Kugler, K.C., & Gwadz, M.V. (2016). Optimization of multicomponent behavioral and biobehavioral interventions for the prevention and treatment of HIV/AIDS. *AIDS and Behavior*, 20, 197-214.