# Treatment as Prevention:

## An Intervention to Re-engage and Treat HIV-infected Individuals with Detectable Viral Loads

John P. Barile, PhD
Department of Psychology
College of Social Sciences
University of Hawai'i at Mānoa

**RMATRIX-II Collaboration Pilot Projects Program**
***NIMHD 5U54MD007584-07***

# Care Continuum


Source: HIV.gov

# Care Continuum


Source: HIV.gov

# Care Continuum


Source: HIV.gov

NEWS

**Those With Undetectable HIV at 'Effectively No Risk' of Transmitting Virus, CDC Says**

by Brooke Sopelsa / Sep.29.2017 / 9:17 AM ET

# Care Continuum


Source: HIV.gov

# Care Continuum


Source: HIV.gov

# Care Continuum


Source: HIV.gov

# Care Continuum


Source: HIV.gov

# Care Continuum


Source: HIV.gov

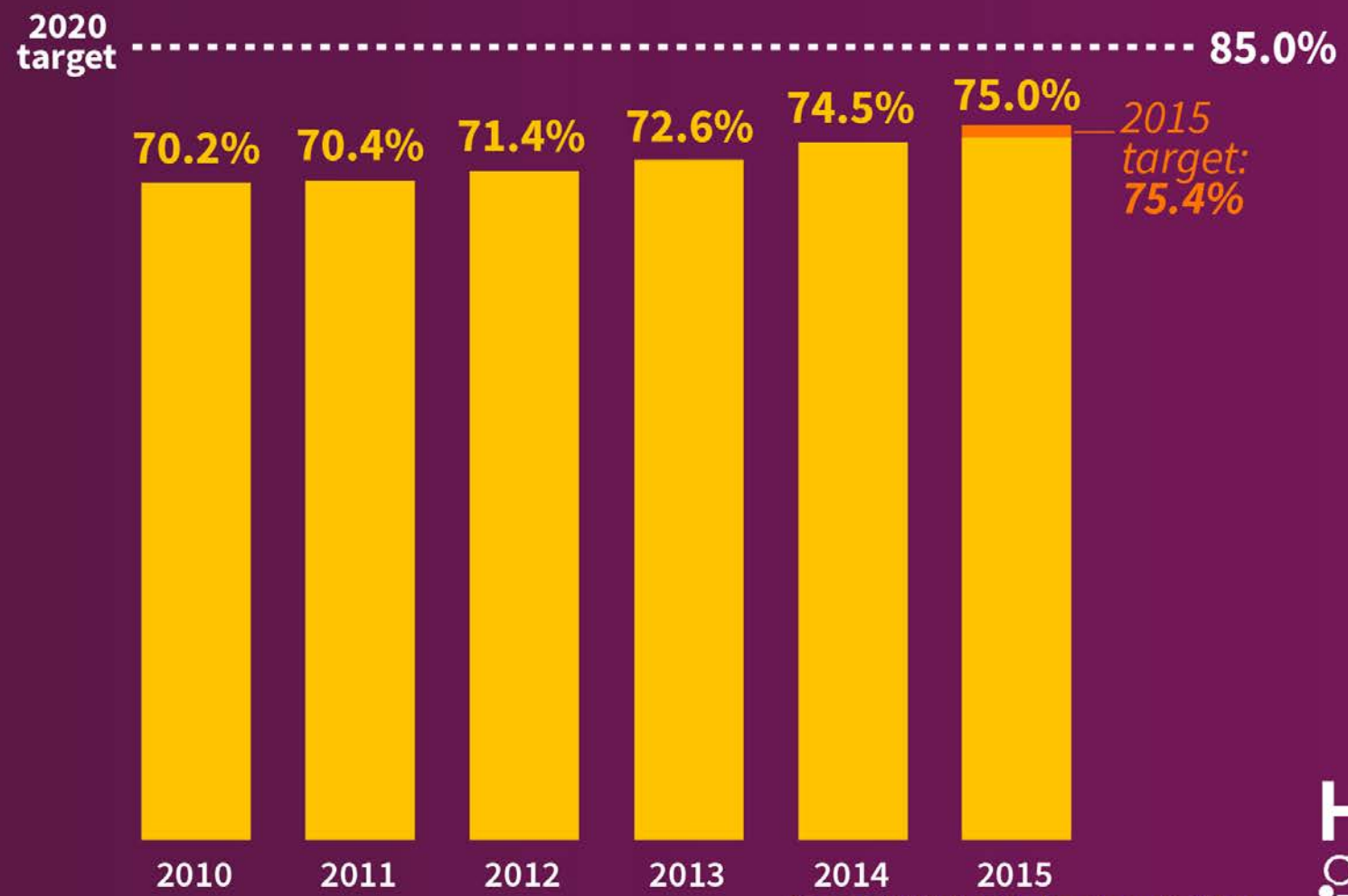
# Care Continuum


Source: HIV.gov

Treatment as Prevention (TasP)

# Linkage to HIV Care

Overall linkage to HIV care has increased from 2010 to 2014.
Missing the NHAS target in 2015 highlights need for improvements STAT.

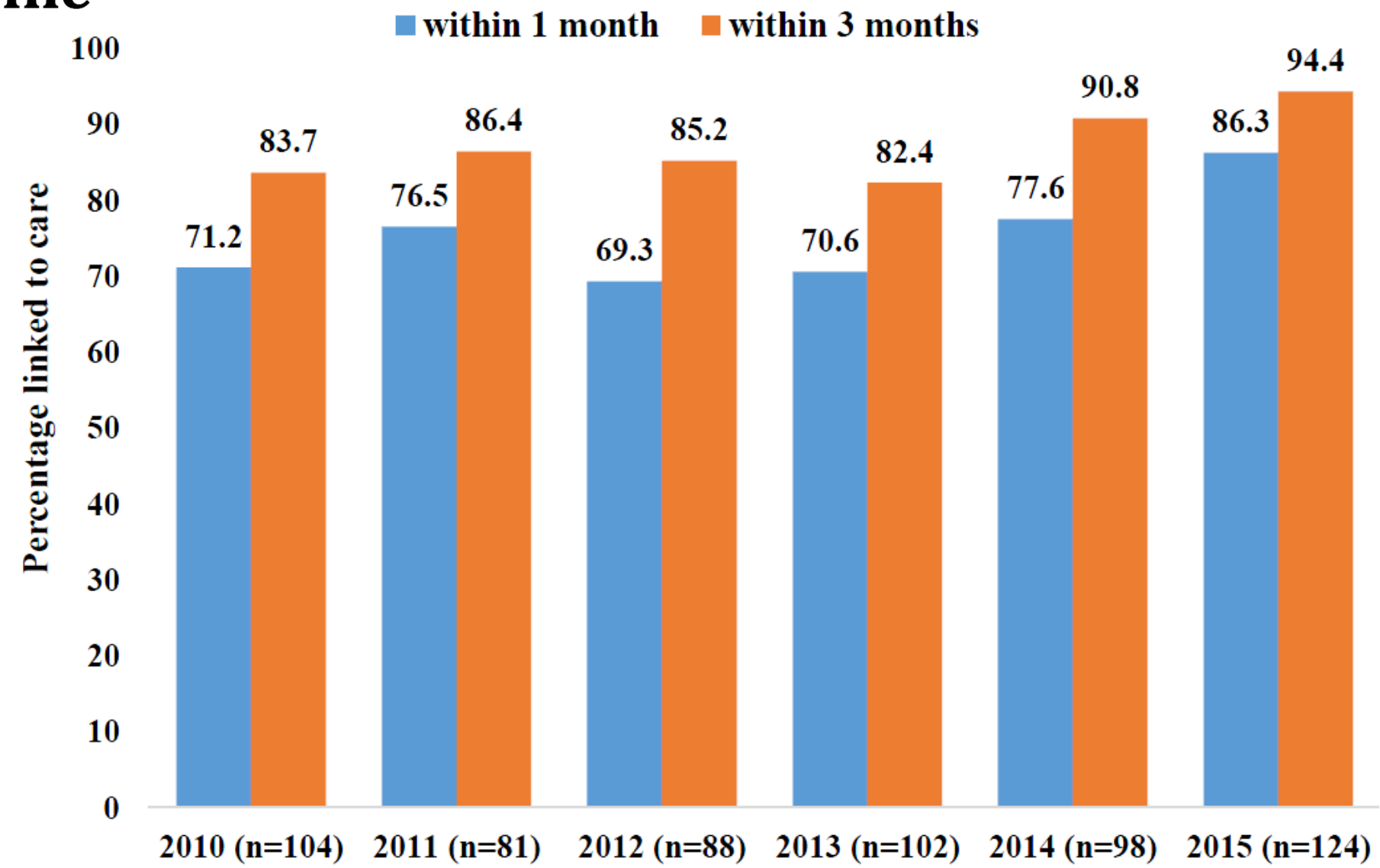



HIV.gov

# 2015 Hawaii HIV/AIDS Integrated Epidemiologic Profile

Harm Reduction Services Branch
Communicable Disease and
Public Health Nursing Division
Hawaii State Department of Health

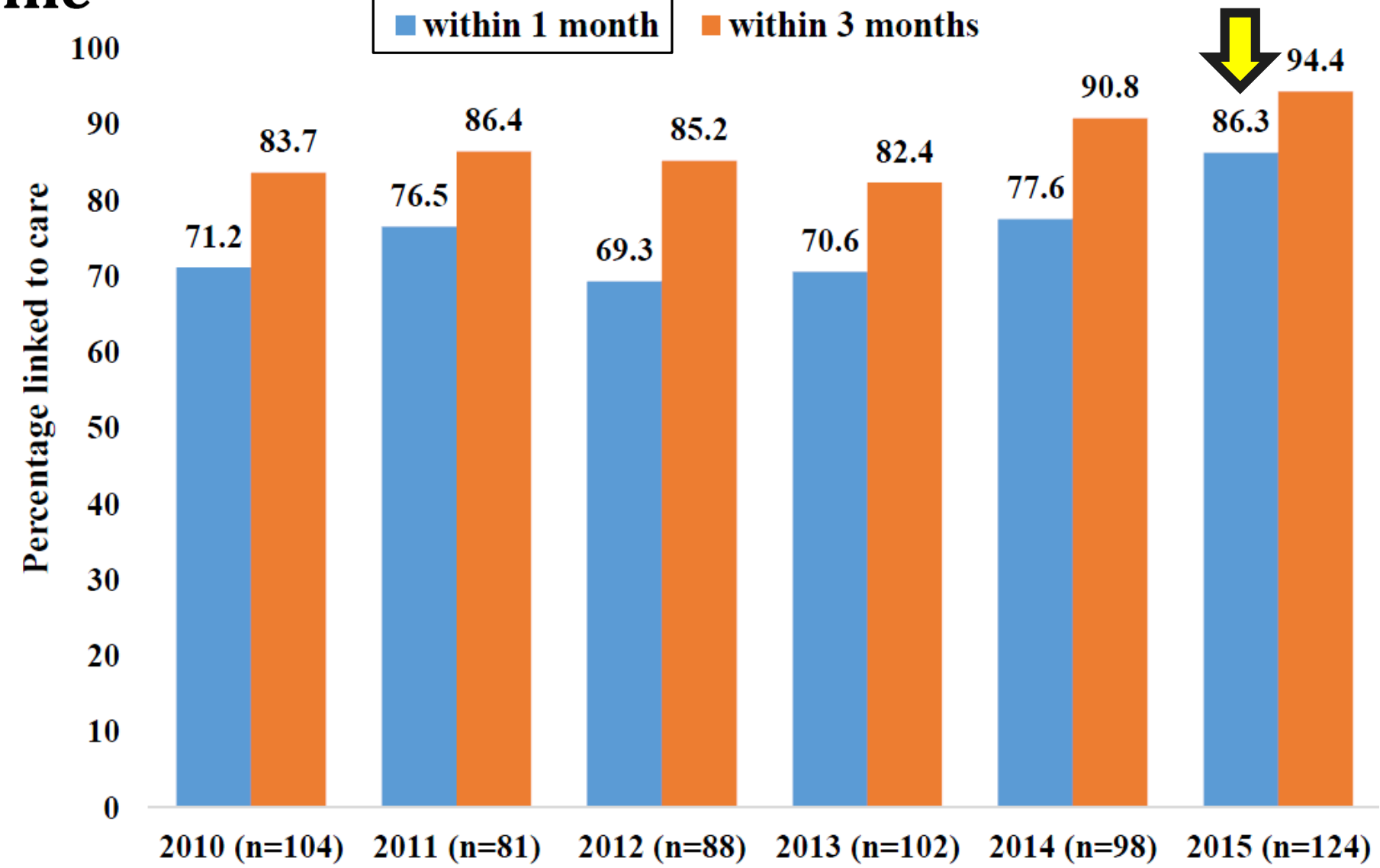
**Figure 3. Linkage to HIV medical care after HIV diagnosis among persons aged ≥13 years old, 2010-2015, Hawaii**



# 2015 Hawaii HIV/AIDS Integrated Epidemiologic Profile

Harm Reduction Services Branch
Communicable Disease and
Public Health Nursing Division
Hawaii State Department of Health

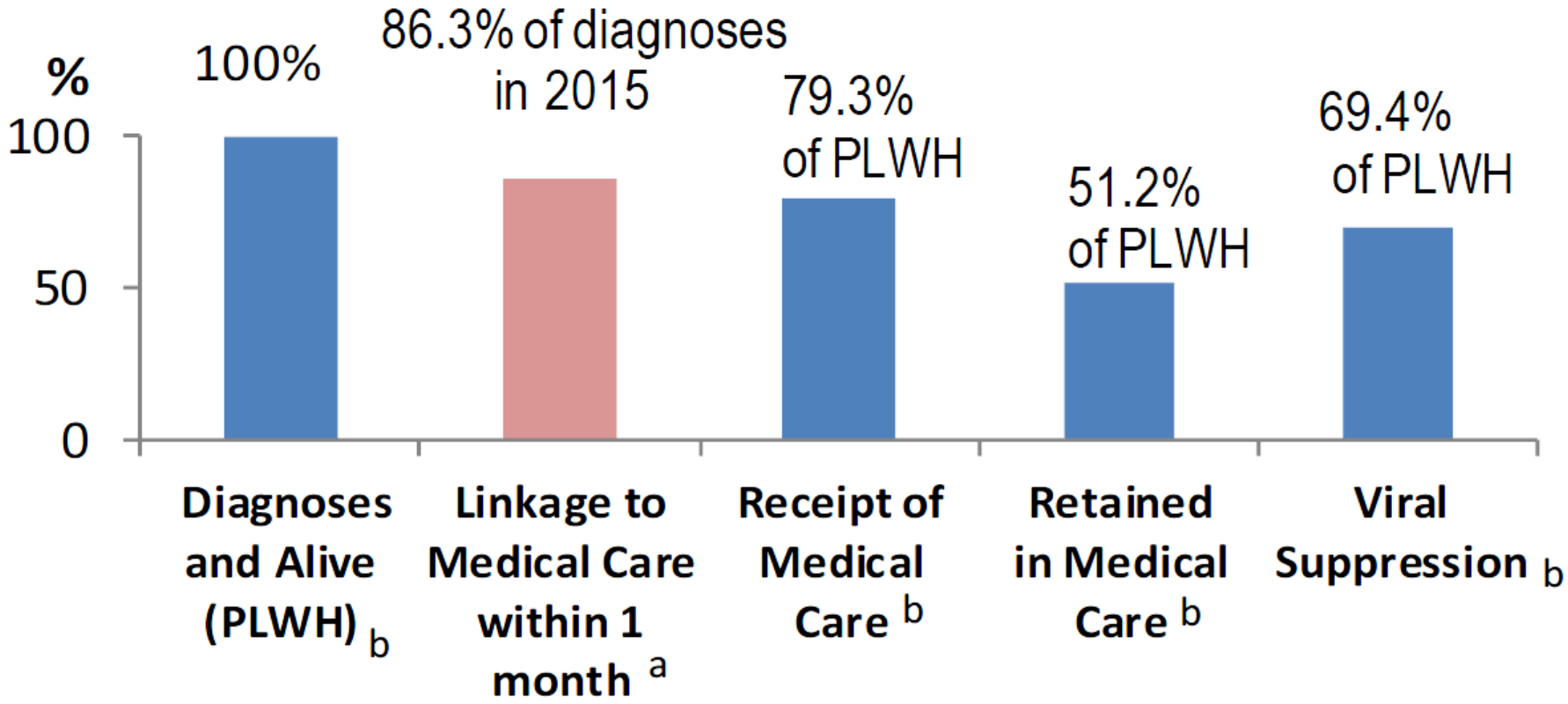
**Figure 3. Linkage to HIV medical care after HIV diagnosis among persons aged ≥13 years old, 2010-2015, Hawaii**



# HIV/AIDS SURVEILLANCE ANNUAL REPORT

Cases to December 31, 2016

## The HIV Care Continuum Among Persons With Diagnosed HIV Infection, 2015, Hawai'i



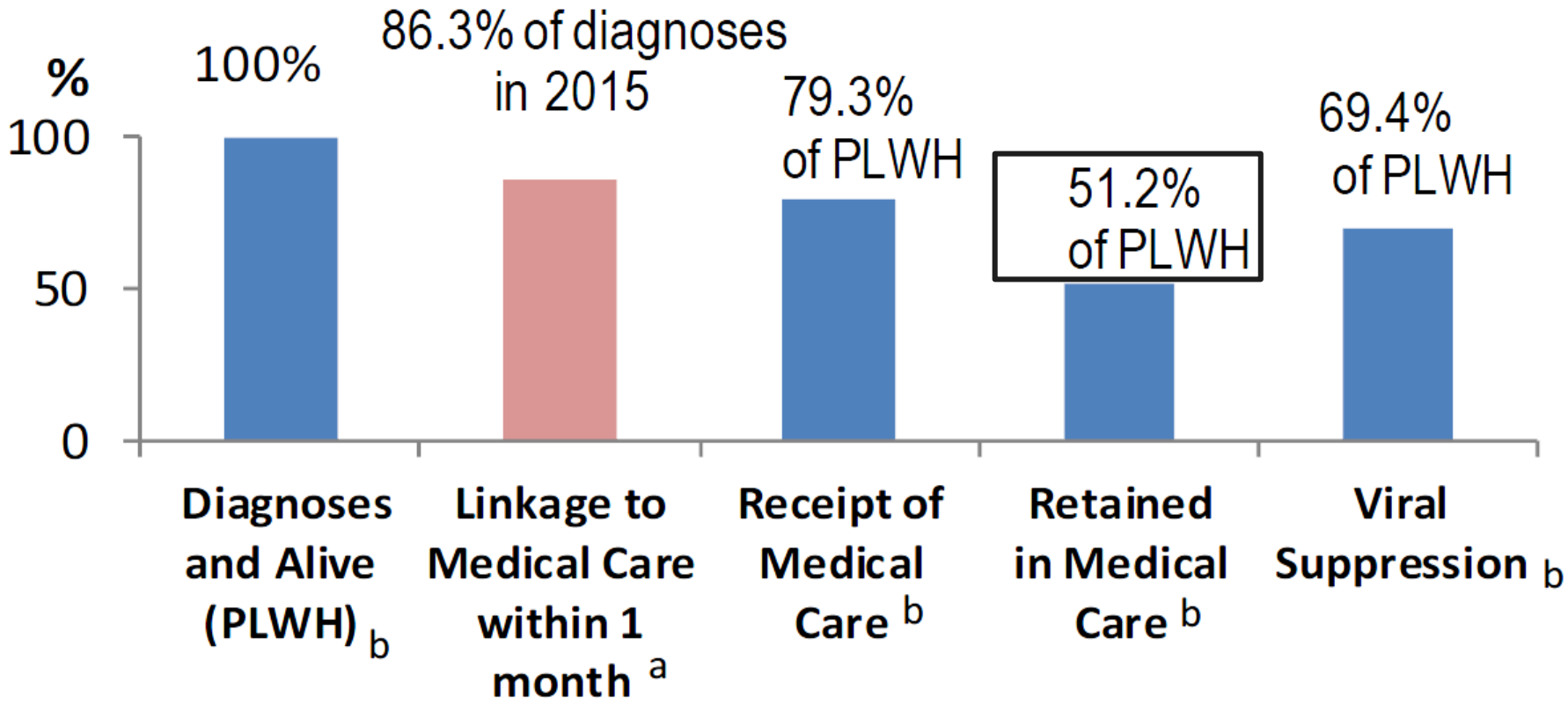

[a] Denominator is newly Hawaii Diagnoses in 2015 (124 persons)

[b] Denominators are persons diagnosed by the end of 2014 and living in Hawai'i in the end of 2015 (2,381 persons).

# HIV/AIDS SURVEILLANCE ANNUAL REPORT

Cases to December 31, 2016

## The HIV Care Continuum Among Persons With Diagnosed HIV Infection, 2015, Hawai'i




[a] Denominator is newly Hawaii Diagnoses in 2015 (124 persons)

[b] Denominators are persons diagnosed by the end of 2014 and living in Hawai'i in the end of 2015 (2,381 persons).

There is a great need to reengage individuals who have been linked to care but not retained care.

# There is a great need to reengage individuals who have been linked to care but not retained care.

- Based on a systematic review of the literature between 1996-2014, not a single study on an intervention specifically designed to re-engage individuals into HIV care was identified.

Higa DH, Crepaz N, Mullins MM. Identifying best practices for increasing linkage to, retention, and re-engagement in HIV medical care: findings from a systematic review, 1996–2014. AIDS and Behavior. 2016;20(5):951-66.

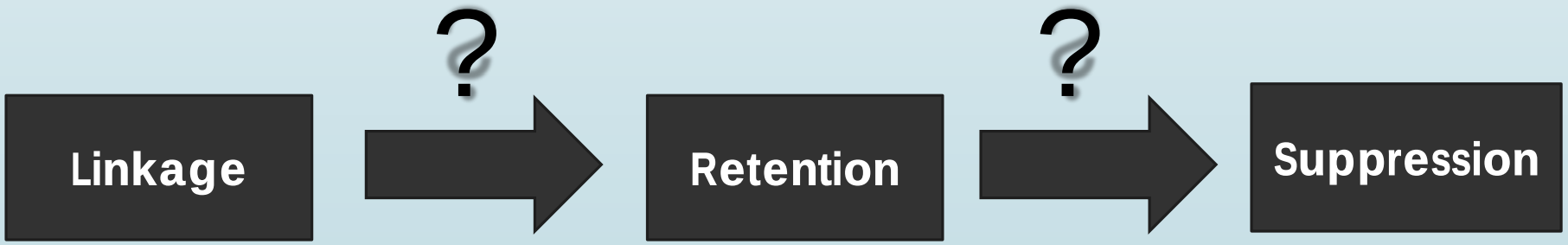
# There is a great need to reengage individuals who have been linked to care but not retained care.

- Based on a systematic review of the literature between 1996-2014, not a single study on an intervention specifically designed to re-engage individuals into HIV care was identified.

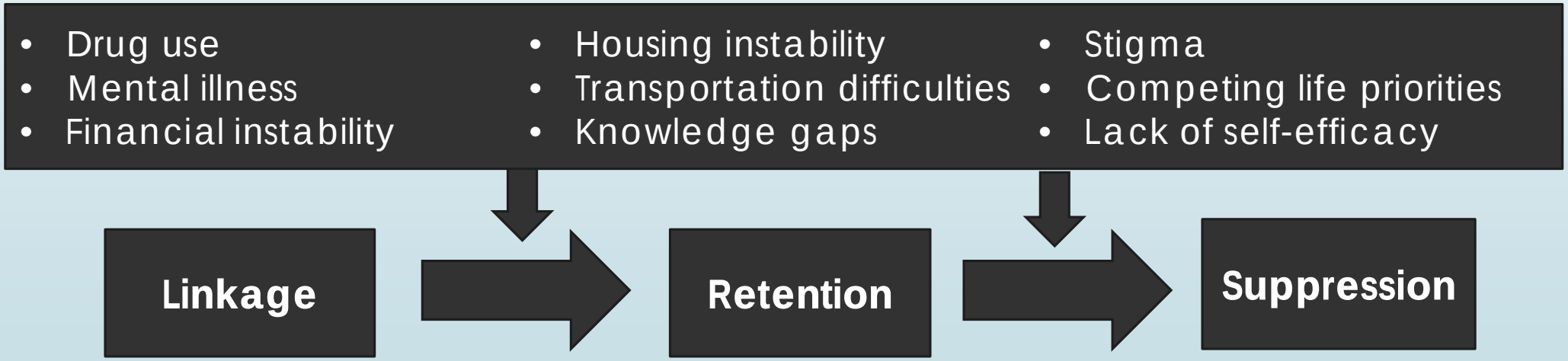
*…the most glaring research gap is the **lack of best practices focused on re-engagement in care**. While efforts must be improved to link and retain PLWH care, developing and testing strategies to locate PLWH lost to care and retaining them once they are located needs to be prioritized.*

Higa DH, Crepaz N, Mullins MM. Identifying best practices for increasing linkage to, retention, and re-engagement in HIV medical care: findings from a systematic review, 1996–2014. AIDS and Behavior. 2016;20(5):951-66.

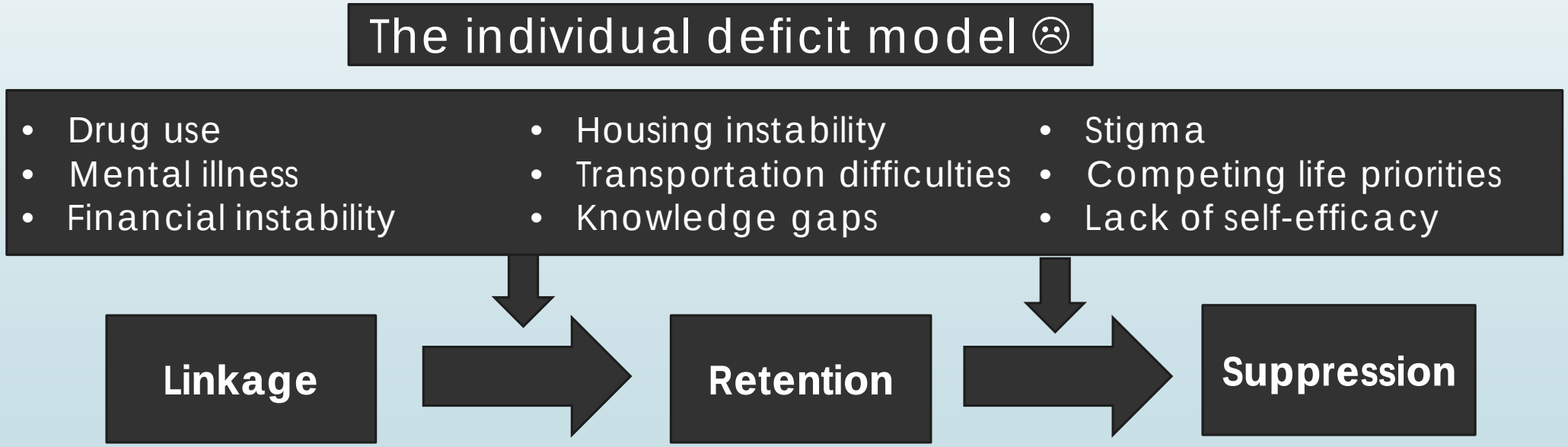
# So where do they go?



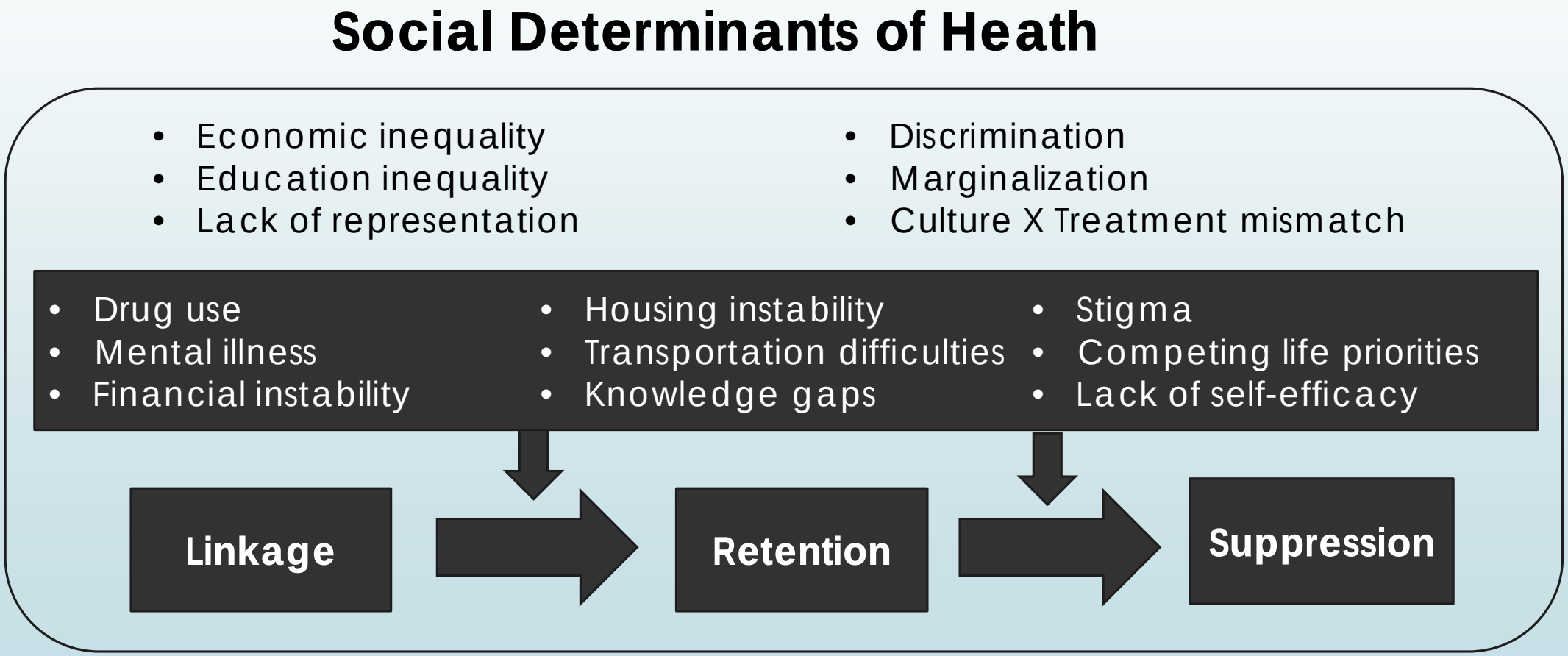
# So where do they go?



# So where do they go?



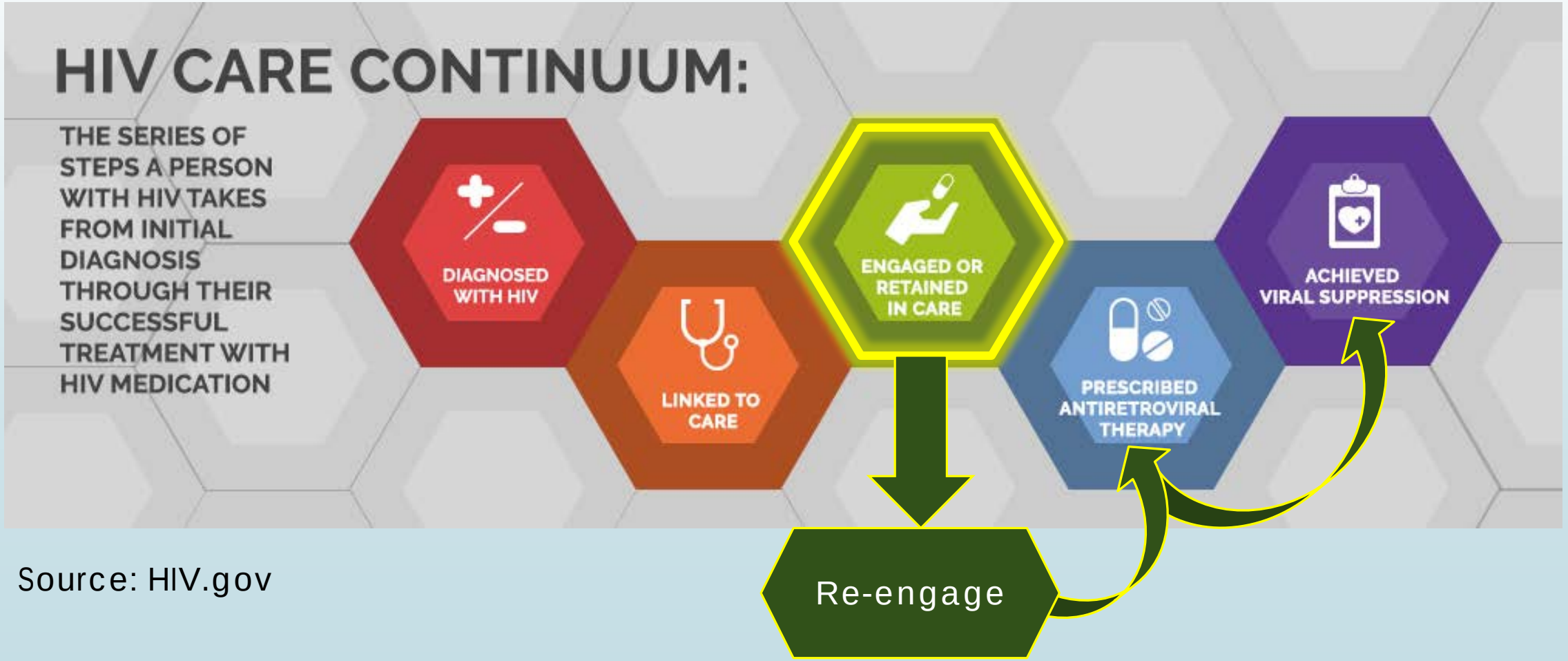
# So where do they go?



# Care Continuum


Source: HIV.gov

# Care Continuum




Source: HIV.gov

# Intervention: Statement of Need

- There are a minimum of 25 individuals living on Oahu with detectable viral loads

- There is very limited research on methods of reengaging individuals after falling out of HIV care or treatment.

- Research priorities include:
  1. Identifying individuals who have fallen out of care or treatment.
  2. Identify reasons why they have fallen out of care or treatment.
  3. Introduce an intervention that aims to reengage individuals who have fallen out of care or treatment

# Study Specific Aims: Treatment as Prevention

1. To identify individuals most in need and not currently engaged in HIV treatment

2. To characterize barriers to HIV treatment

3. To examine and evaluate the effectiveness of an innovative intervention promoting HIV treatment adherence.

**Public Health Impact:** Improve the health and well-being of people living with HIV and prevent new incidents of HIV

# Collaborative Intervention

- Community Partner: Community Health Outreach Work to Prevent HIV/AIDS Project (CHOW Project)
- Biomedical: John A. Burns School of Medicine (JABSOM), Hawaii Center For AIDS and Clint Spencer Clinic
- Social Sciences: University of Hawaii at Mānoa, Department of Psychology
- RMATRIX: Clinical Research Resources & Facilities (CRRF) Core

# Procedures

- Identify at least 50 individuals who
  - Have history of non-compliance with care or treatment, or
  - currently face substantial barriers to care or treatment

    (i.e., at risk for non-compliance with care or treatment).
- Hiring of a specially trained case manager to address the support needs for individuals with a history of non-compliance to care or treatment.
- Individuals will be prioritized into a intensive case management program, with a maximum of 25 individuals. [Currently 20 are receiving services]
- An additional 25 waitlist individuals will be assessed but not receive intensive case management services.

# Intensive Case Management

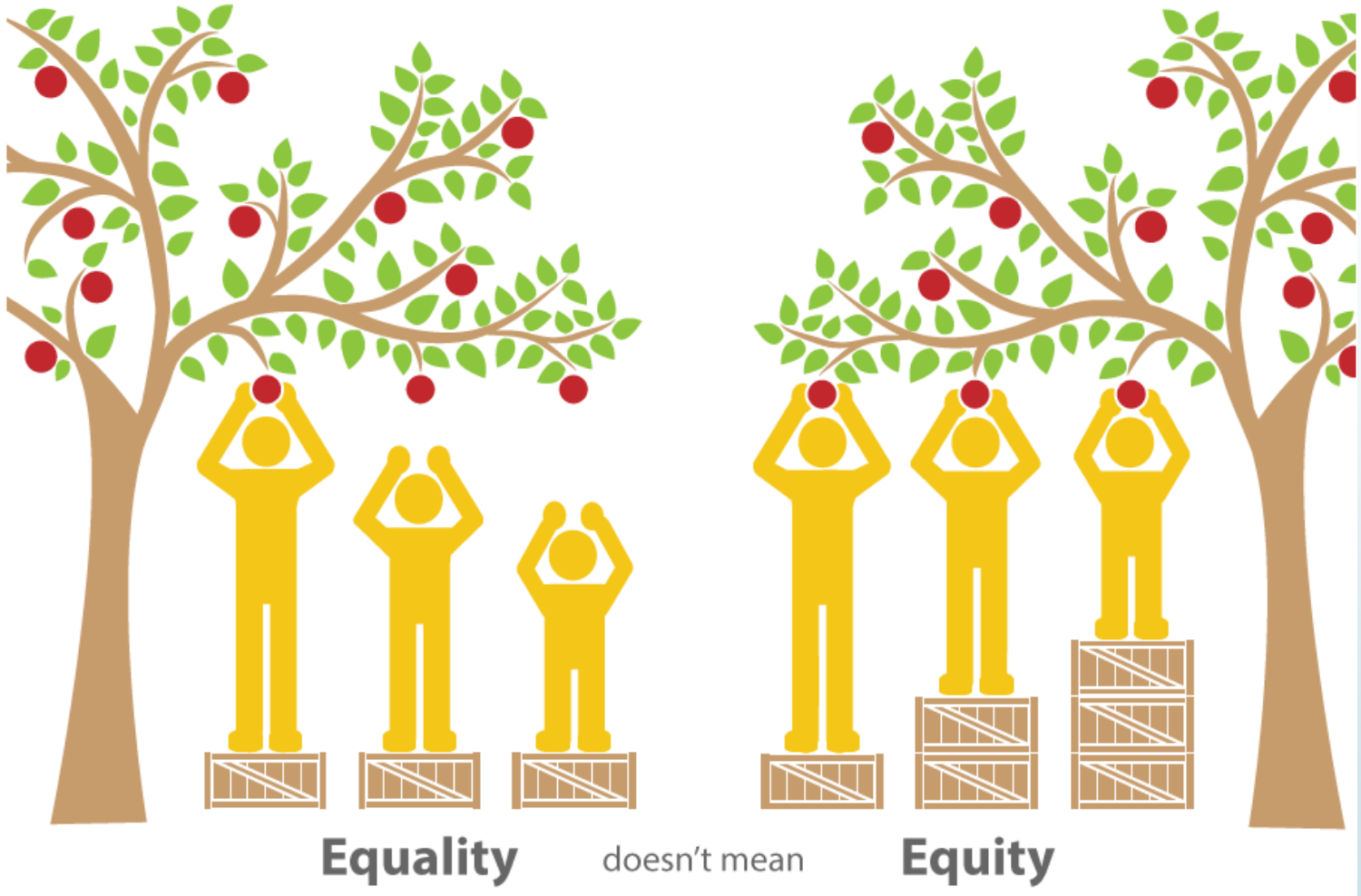
- Many of the individuals who have fallen out of care have previously or currently received traditional case management services
- But the client traditional CM ratios can be quite high (>100:1)
- Intensive case management (no more than 25:1)permits the use of person-center approaches
- This is paired with the linking of a collaborative team

# Adapt and Deliver

Intensive Case Management ➡ Person-Centered Care

- Treatment and research team members meet regularly to discuss observations and findings from assessments to identify treatment needs to be addressed by the case manager or clinic team.

- All barriers and intervention elements will be documented to shape the development of an intensive case management protocol to reengage people living with HIV.




**Person-centered care does not create social change…**

**….but it does can enable everyone to reach the apple.**

# Measures

# Measures

- Conduct chart reviews for treatment and comparison group participants, including:
  - All lab results and comorbid chronic conditions over the past two years;
  - Frequency and adherence to scheduled appointments

# Measures

- Conduct chart reviews for treatment and comparison group participants, including:
  - All lab results and comorbid chronic conditions over the past two years;
  - Frequency and adherence to scheduled appointments

- Acuity assessments conducted by case managers to identify treatment needs, assess progress, and demonstrate the program's impact. Domains assessed every 2 months include:

  - HIV care adherence
  - HIV health status
  - Non-HIV related medical issues
  - HIV medication adherence
  - Current substance use
  - Current housing status
  - Current legal status
  - Support systems and relationships
  - Current income and finance status
  - Current transportation/mobility status
  - Current nutritional status

  - Scores range from 0-42, representing self-management (0) to intensive need (42)

# Measures

- Quantitative and qualitative interviews with all participants every 2 months conduct by the research team include:

Quantitative measures include:

- Social Support
- Self-efficacy
- Satisfaction with life
- Perceived stress
- Access to healthcare
- Health-related quality of life
- Community support
- Service needs
- Engagement in emergency mental or physical health services
- Engagement in with legal
- Engagement in care
- Lab results

- Qualitative interviews focus on the identification of unknown barriers and potential solutions

# Current Progress

# Current Status

- 20 individuals have begun receiving client-centered, intensive case management services
- 11 face to face interviews with program participants – including quantitative and qualitative data
- Initiated data collection for:
  - Chart reviews
  - Program administrative data (dosage)
  - Participant acuity assessments

# Participants

- The vast majority of currently enrolled participants represent historically marginalized communities.
  - Native Hawaiian is the most commonly cited ethnicity
  - The vast majority report less than a high school diploma
  - The vast majority receive income of less than $20,000 a year
- The vast majority report fair to poor health

# Participants

- Many have Comorbidities

| | | |
|---|---|---|
| **Depression** | **Anorexia** | **Leukemia** |
| **Renal Insufficiency** | **Kidney Disease** | **CMV Colitis** |
| **Heart Disease** | **Coronary Artery Disease** | **Hypothyroidism** |
| **Cervical Intraepithelial Neoplasia** | **Chronic Dermatitis** | **Hepatitis B / C** |

# Current Status

- Majority have Intensive Need
  - Detectable Viral Load and CD4 < 200
  - Missed 2+ consecutive HIV medical appointments in last 6 months
  - 2+ non-HIV related illnesses that impact adherence
  - Misses HIV medication doses daily / Experience adverse side effects
  - Need for mental health support, assessment, and treatment – and does not receive it
  - Client's behaviors negatively impact interactions with providers or other social support
  - Current or recent drug/alcohol use or dependence that interferes with HIV medication adherence

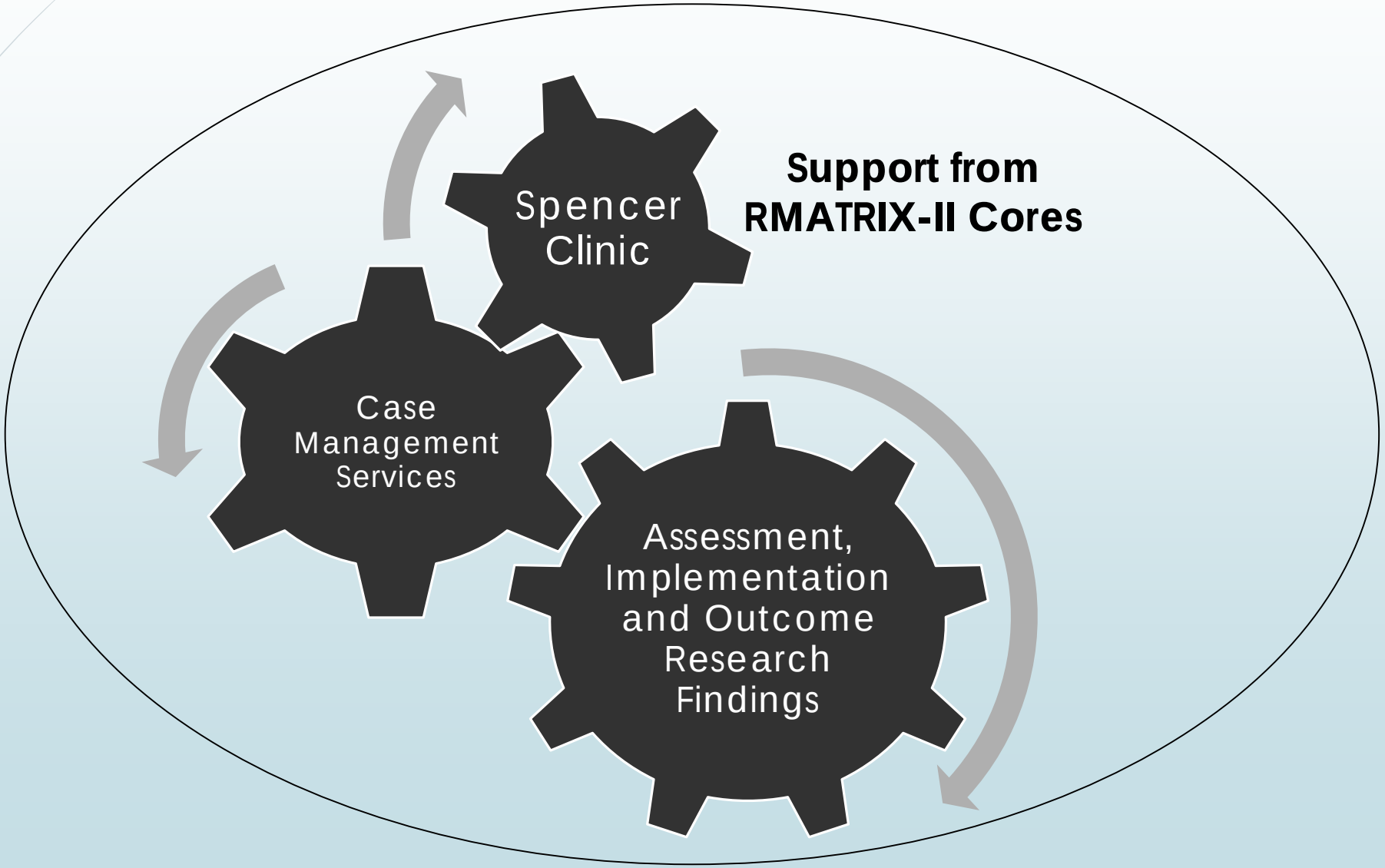
# Current Status

- Initial Interviews
  - Majority of participants are unemployed, receive food stamps and other welfare assistance and are housed in independent apartments through social service supports (e.g., Gregory House)
  - All participants interviewed have some form of medical insurance (e.g., Ohana, AlohaCare, Medicare, etc.)
    - No participant identified money as a deterrent to seeking care/treatment

# Current Status

- Majority (71%) of participants are missing HIV-related clinic appointments due largely to issues with transportation
  - Most require commutes of 30 minutes or greater – with difficulty attaining reliable transportation
- Missing appointments was one of the more highly endorsed reason for missing medication dosages
  - Simply forgetting to take the medication or refusing to take the medication due to side effects were also commonly endorsed

# Ongoing Collaboration and Program Development



# Summary

With close attention to person-centered barriers and responsive care, the TasP intensive case management program may prove to be an effective and efficient means to re-engage people living with HIV who have fallen out of care or need additional support.

RMATRIX

UNIVERSITY of HAWAI'I MĀNOA




Devin Barney

Scott Kilousky

Maya Barney, RN

Nancy Hanks, RN

# Questions?

Jack Barile

University of Hawai'i at Mānoa

barile@Hawaii.edu

# Current Status

- Lab Data Averages (since Jan. 2016)
  - Viral Load per Person: Undetectable (n=1) – 182,000
  - CD4 per Person: 50.4 – 623.5
  - Lab Visits Range from 2 – 9
  - Medications

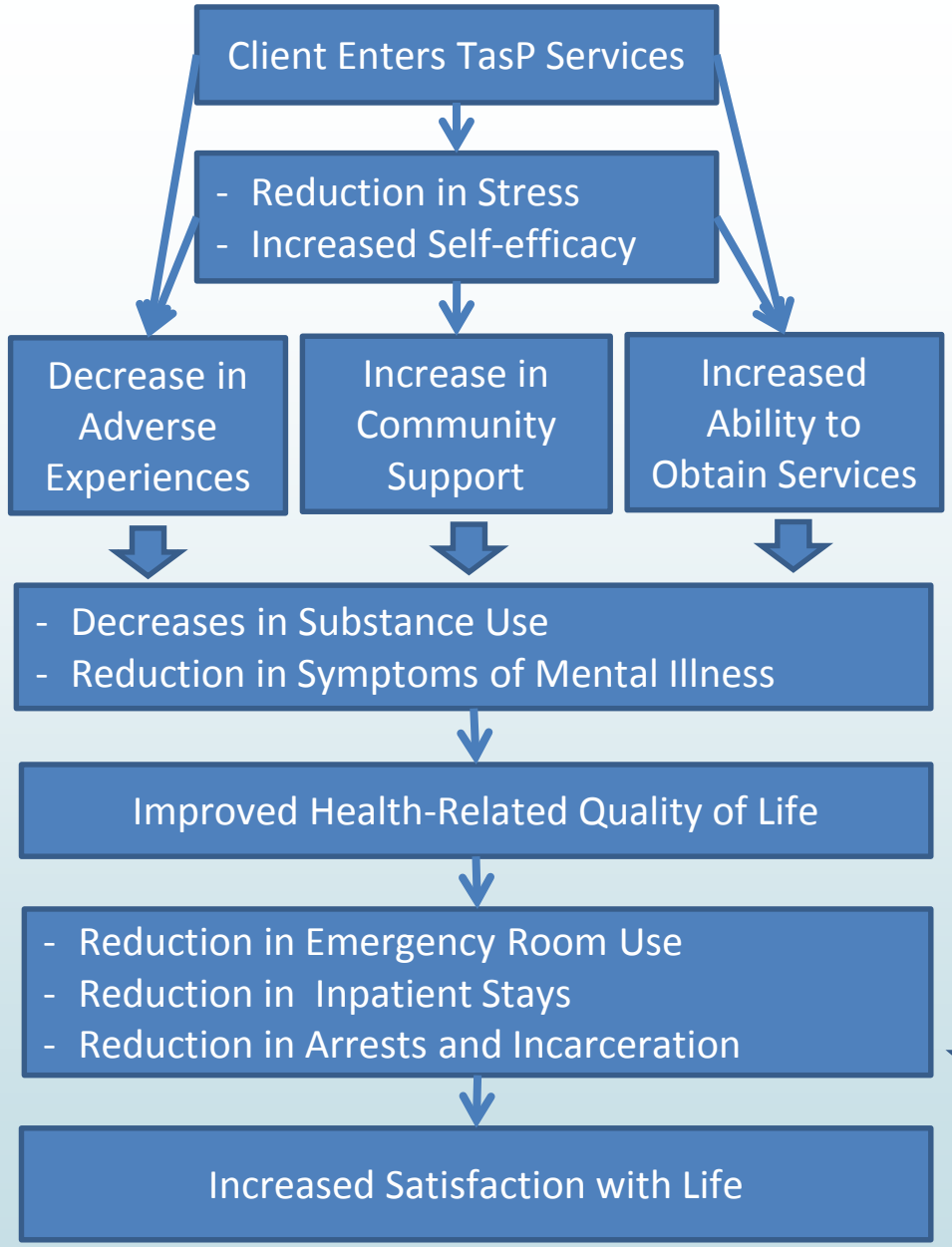
| | | |
|---|---|---|
| **Tivicay** | **Complera** | **Triumeq** |
| **Prezcobix** | **Ziagen** | **Prezista** |
| **Zofran** | **Mycobutin** | **Viread** |
| **Lipitor** | **Toprol XL** | **Norvasc** |
| **Abilify** | **Desyrel** | **Elavil** |
| **Celexa** | **Sprycel** | **Lactulose** |

# TasP Services Theory of Change

Intake and Assessment

Short Term Goals

Long Term Goals




This study will:

- Identify individuals most in need of treatment
- Identification of barriers to care
- Address barriers to care
- Improve HIV treatment self-efficacy
- Enable individuals to Receive consistent care and treatment for HIV
- **Result in treatment stability and suppressed viral loads for participants**

# Moderators and Outcomes

Moderators

- Level of engagement

Outcome

- Level of acuity
- Health and well-being
- Lab results