

Utilizing an Implementation Science Lens to Optimize Urban HIV Responses

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Outline

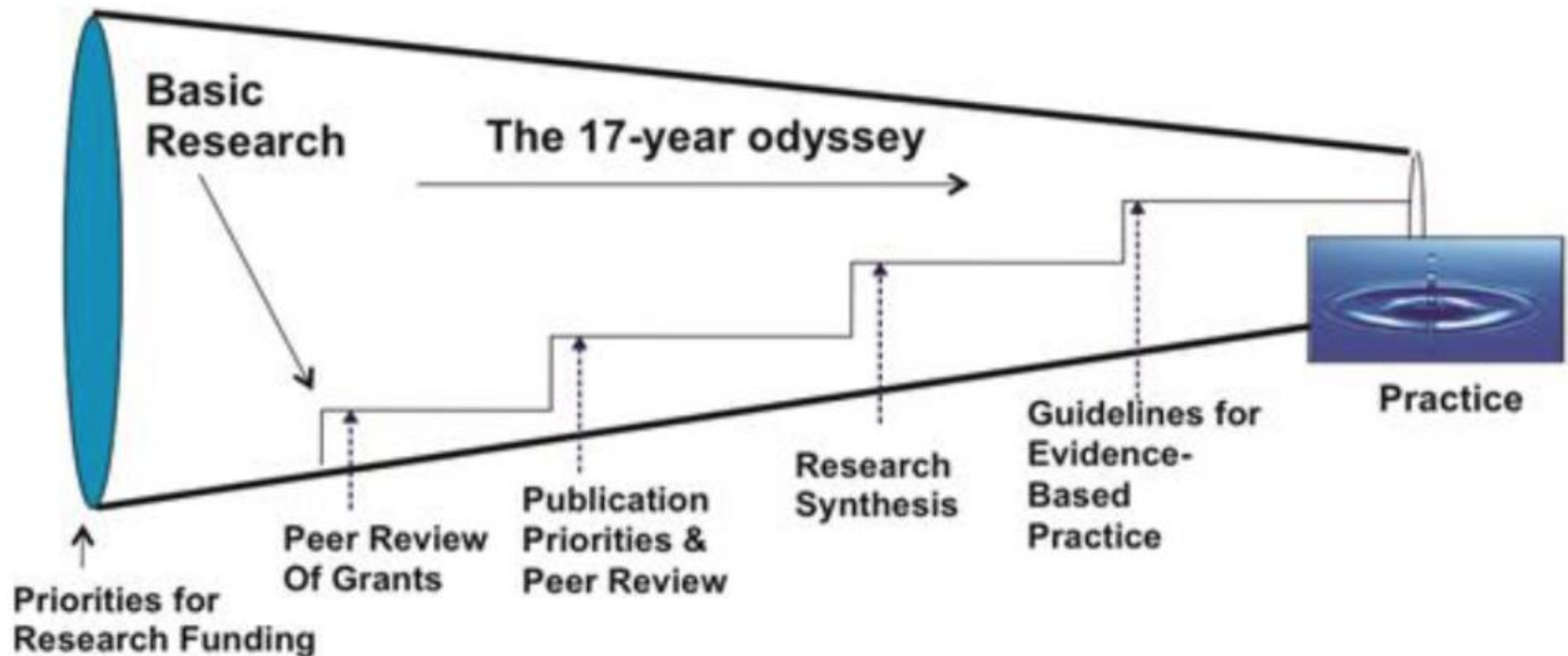
- What is and why use implementation science to guide your work
- Stakeholder engagement
- Target implementation gaps
- Real-world examples
 - Bishkek, Kyrgyzstan – Fast Track City Implementation
 - Ukraine
 - Lima, Peru

Word Cloud: Terminology for Dissemination & Implementation Research



Rabin B.A. et al. *Dissemination & Implementation Research in Health*, 2018.

Research Gap from Evidence to Practice



.... and this is for the 14% of evidence-based practices that actually make it!

Balas EA, Boren SA. Managing clinical knowledge for health care improvement. In: Bemmel J, McCray AT, eds. *Yearbook of medical informatics*. Stuttgart: Schattauer; 2000: 65– 70.

Implementation Science

IMPLEMENTATION TEAM

INTERVENTION	
	Effective
	Facilitation

No
14%, 17 Yrs
Letting it Happen Helping it Happen

Balas & Boren, 2000

Implementation Science

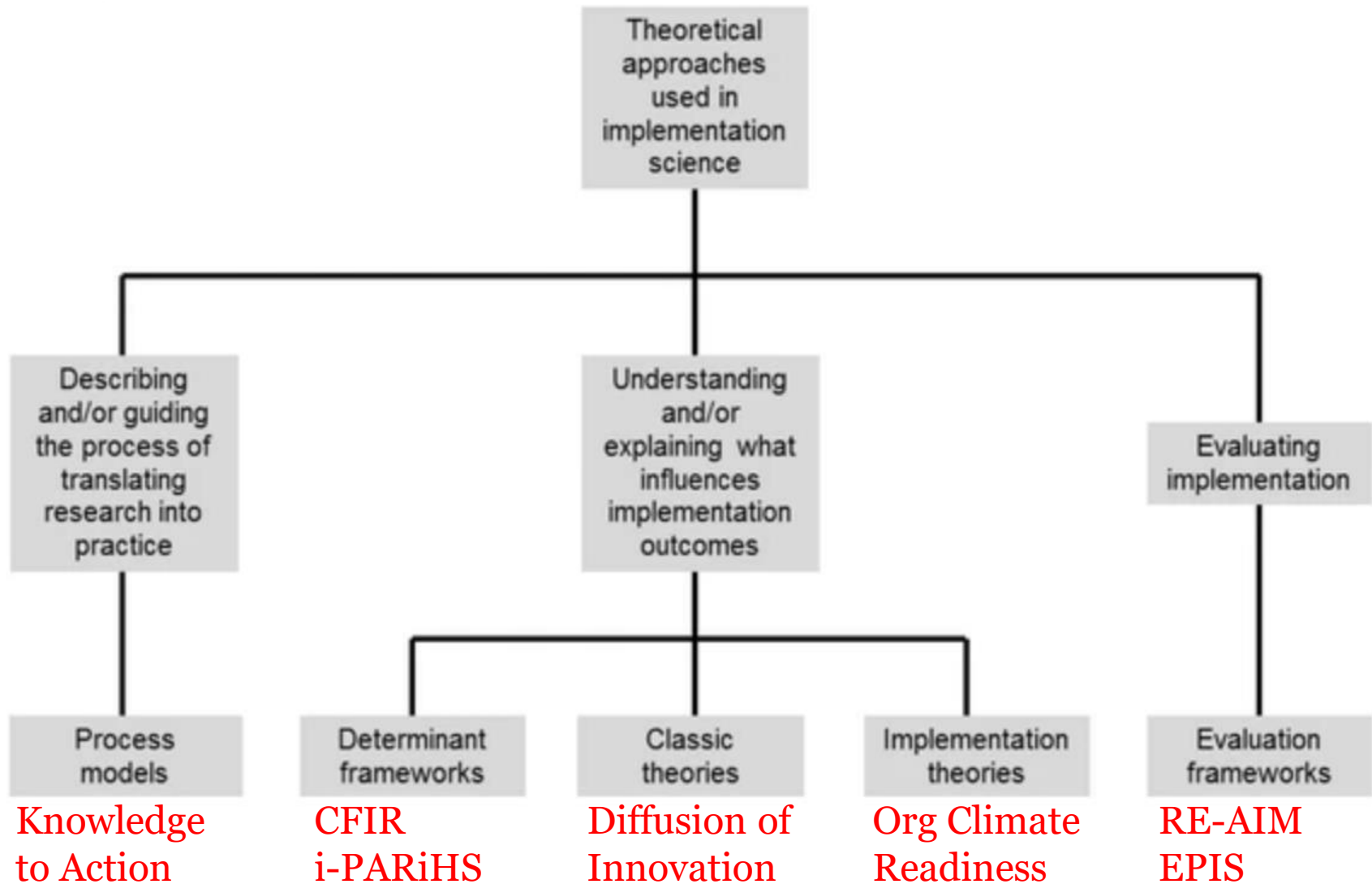
- **Definition:** The scientific study of *methods* to promote the systematic uptake of research findings and other evidence-based interventions into routine practice to improve the quality and effectiveness of health services and care.
- Implementation is part of a diffusion- dissemination-implementation continuum.
 - **Diffusion:** the passive, untargeted and unplanned spread of new practice
 - **Dissemination:** the active spread of new practices to a target audience using planned strategies
 - **Implementation:** the *process* of putting to use (e.g., scaling up) or integrating new practices within a setting
- A combination of several theories, models & frameworks.
 - Now >100 theoretical frameworks to guide the science of implementation

Interventions vs. Implementation Strategies

- The evidence-based intervention / practice / innovation is **THE THING** (e.g., ART, PrEP)
- Implementation strategies are the stuff we do to try to help people/places **DO THE THING** (e.g., facilitate, mHealth, same-day ART)
- Main implementation outcomes are **HOW WELL** they **DO THE THING** (e.g., close the implementation gap or scale up)

- Courtesy Geoff Curran

Making Sense of Implementation Theories, Models and Frameworks

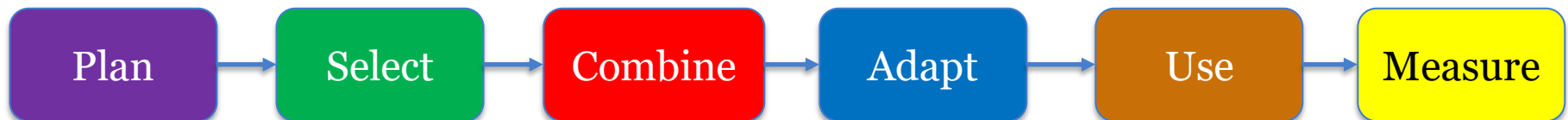
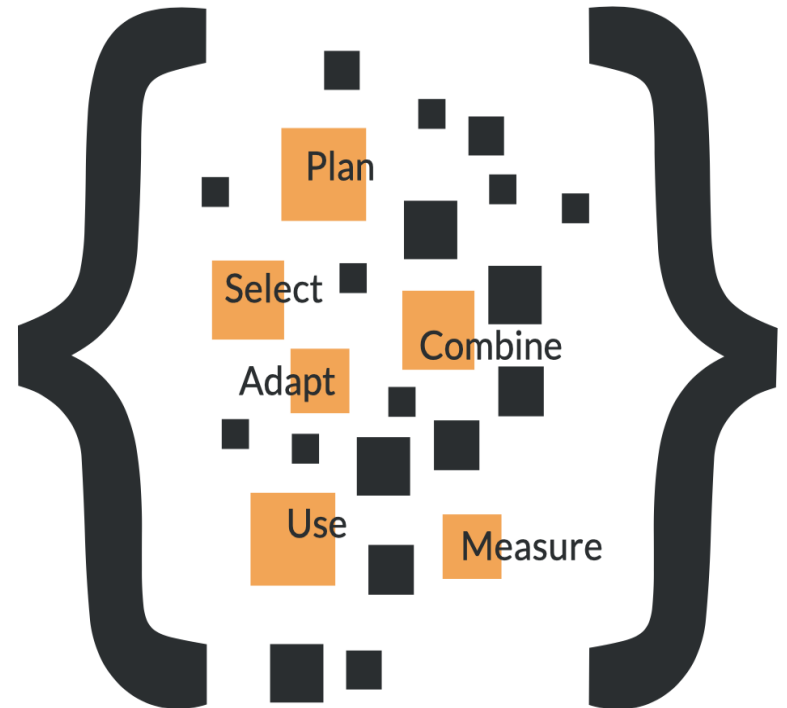


Exploring Dissemination and Implementation Models

Helping Navigate Dissemination and Implementation Models

The D&I Models Webtool is an interactive, online resource designed to help researchers and practitioners navigate D&I Models through planning, selecting, combining, adapting, using, and linking to measures.

Access The D&I Models Webtool Here!



<https://dissemination-implementation.org>

In sum we become systems engineers!

Faster!

Cheaper!

Better!

Forsberg K & Mooz H, Center for Systems Management, 1998

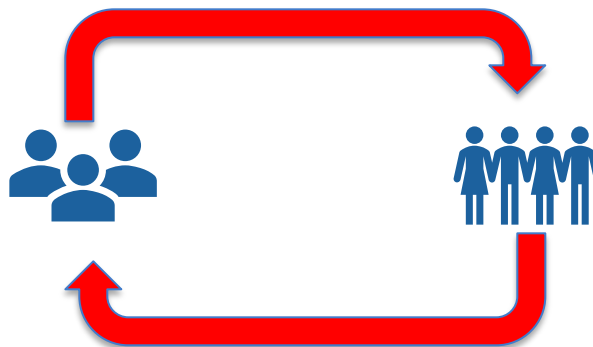
Practical Implementation and Implementation Science

- There can be tension between those who are doing the actual real-world implementation and those who are studying it or facilitating it
- Tensions can occur between multiple stakeholders (e.g.)
 - Funders and implementers
 - Implementers and targets (e.g., patients, clinicians)
- Outcomes are optimized when there are synergies between implementers and researchers
 - Creating synergies is key and is an active process
- Coordination between stakeholder groups (ideally community informed or led)
 - Aligning the benefits and the goals

Four Key Ingredients in Implementation Research



Implementation
Questions



Implementation
Research Team

Community
Partners



Theories, Models,
& Frameworks

Community Partners to Guide the Research Team



Increasing Level of Community Involvement, Impact, Trust, and Communication Flow

Outreach

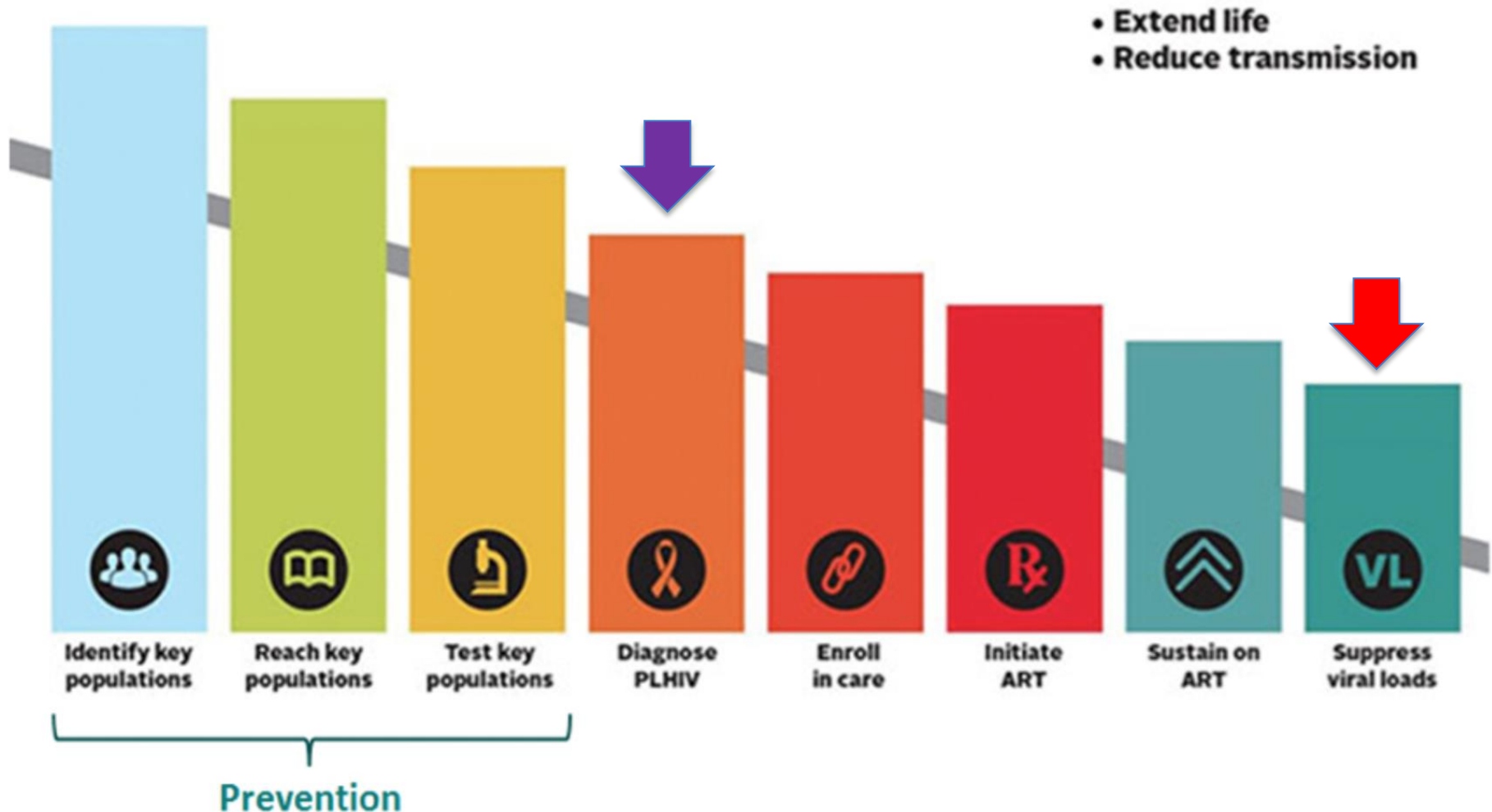
Consult

Involve

Collaborate

Shared Leadership

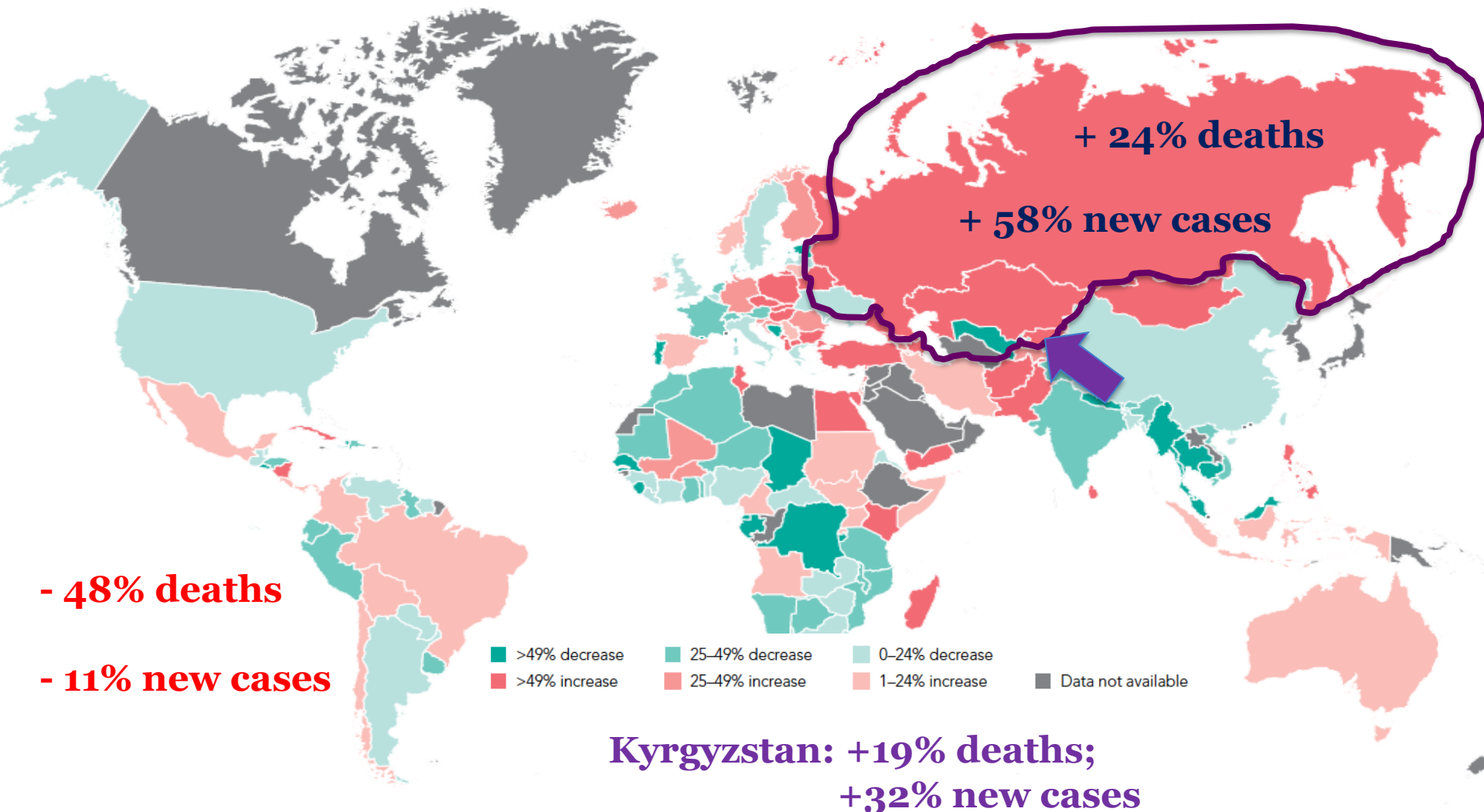
Target Implementation Gaps – Understand Context



Bishkek, Kyrgyzstan

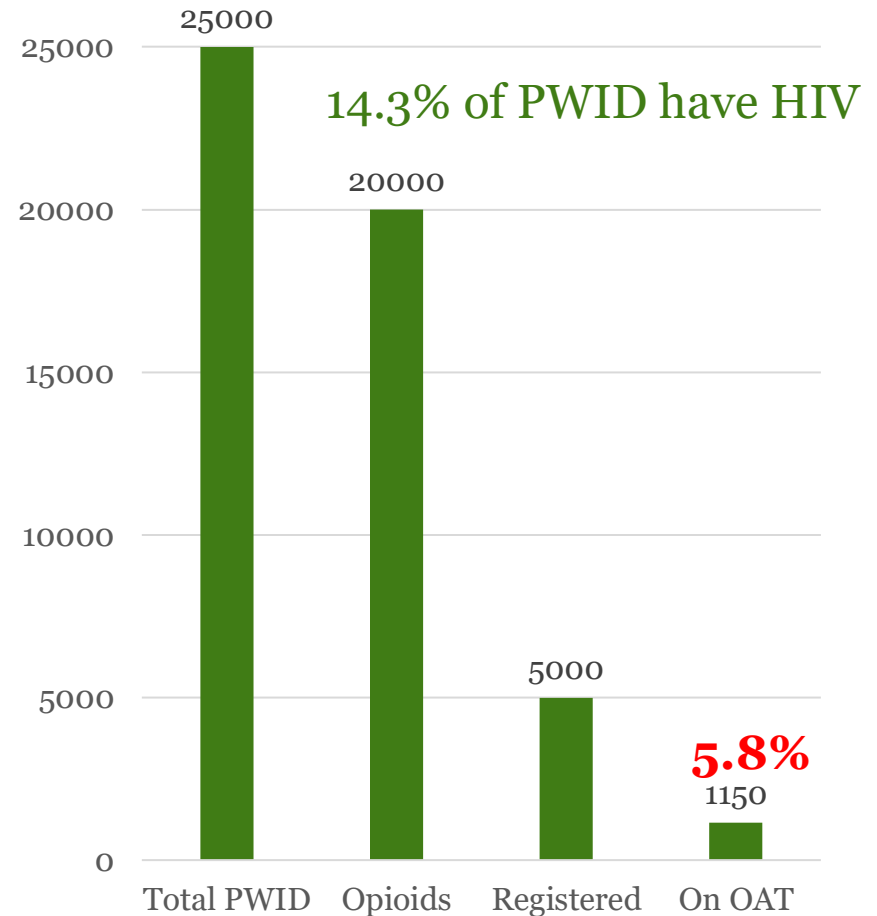
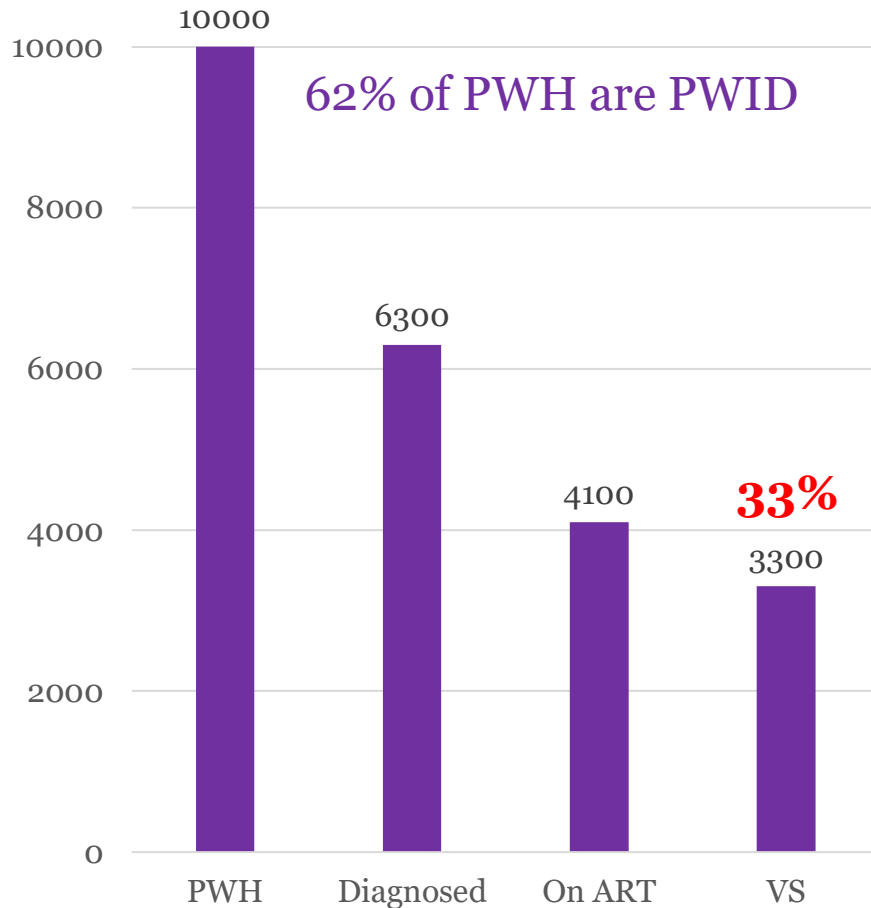


Percent Change in New HIV cases: *2010 to 2020*

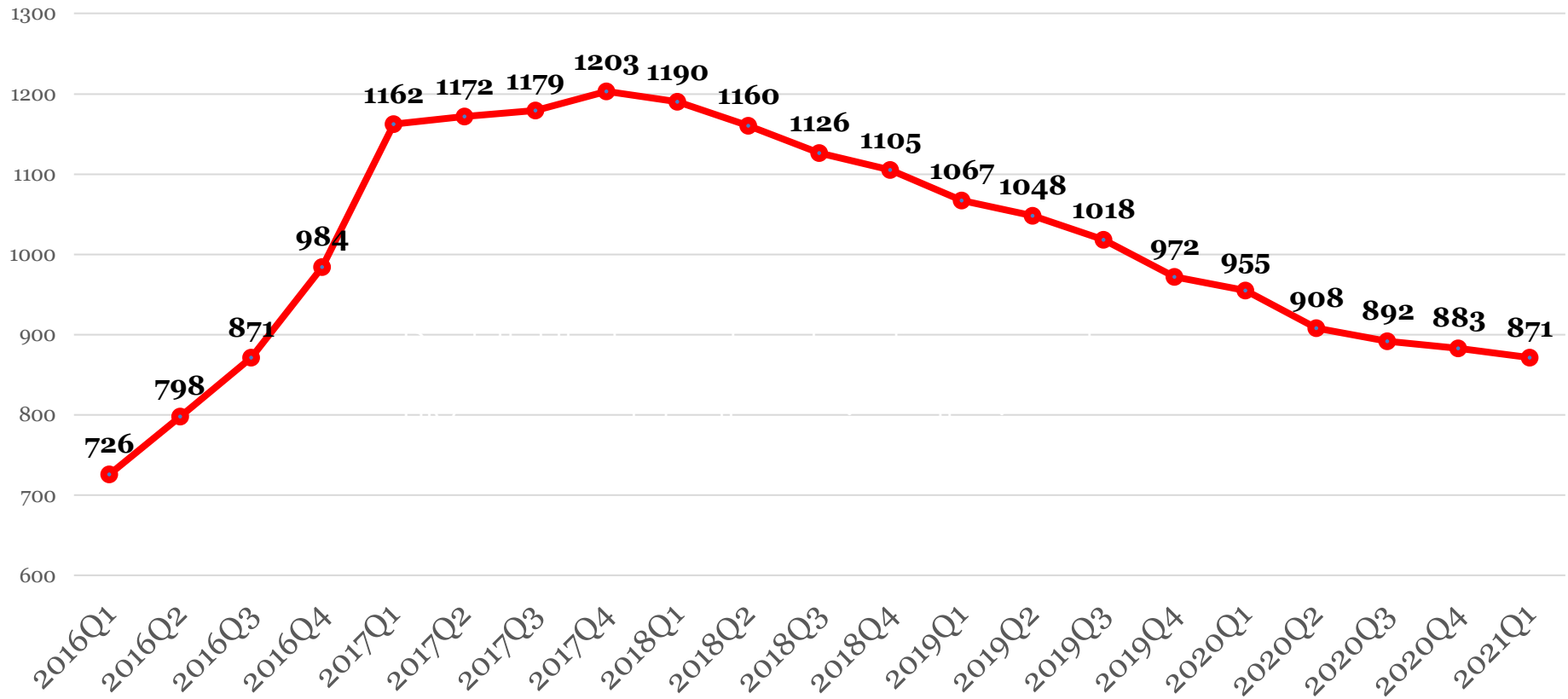


Kyrgyzstan Treatment Cascades

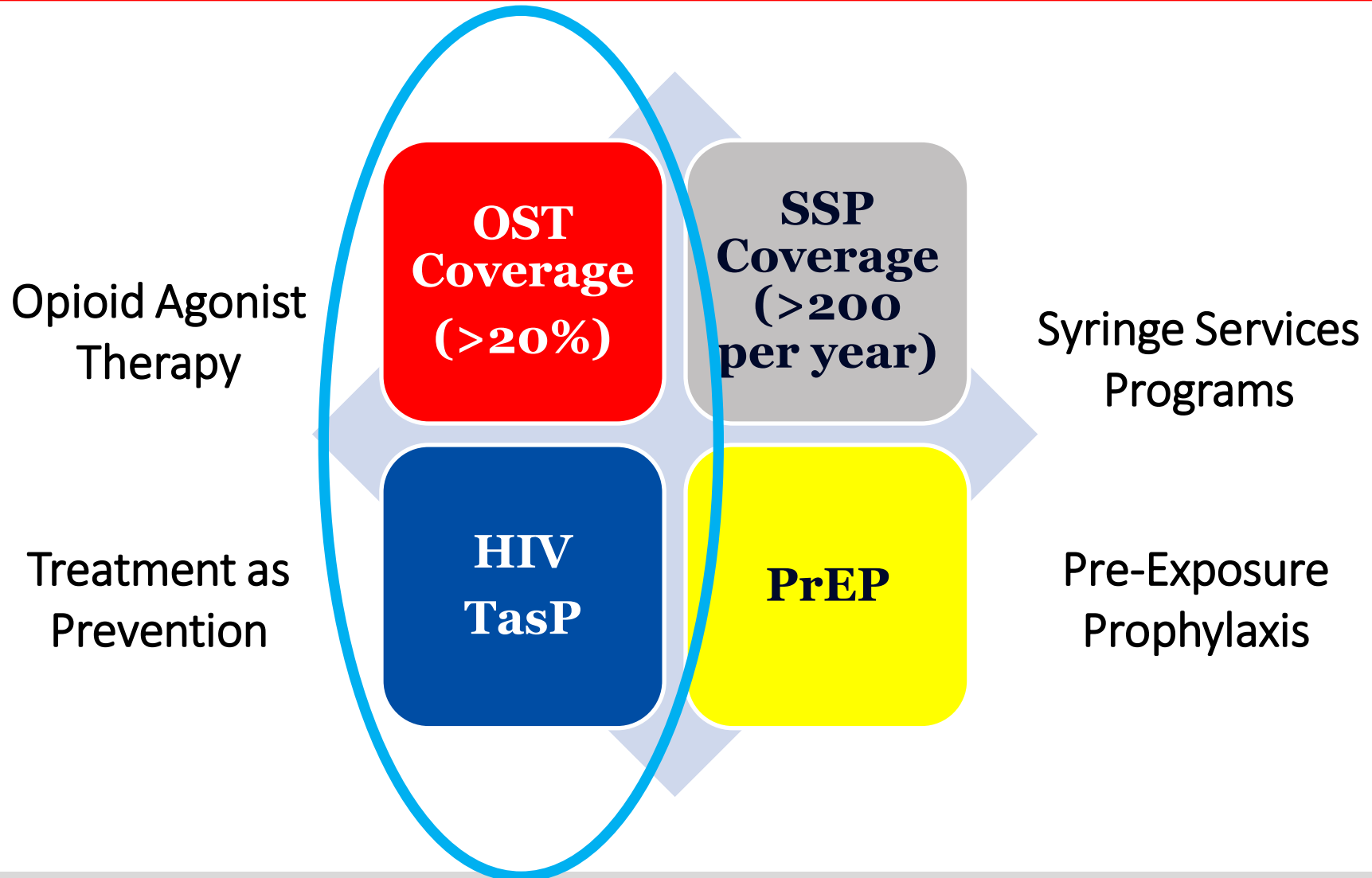
HIV and Opioid Use Disorder



Patients on Methadone (2016-2021)

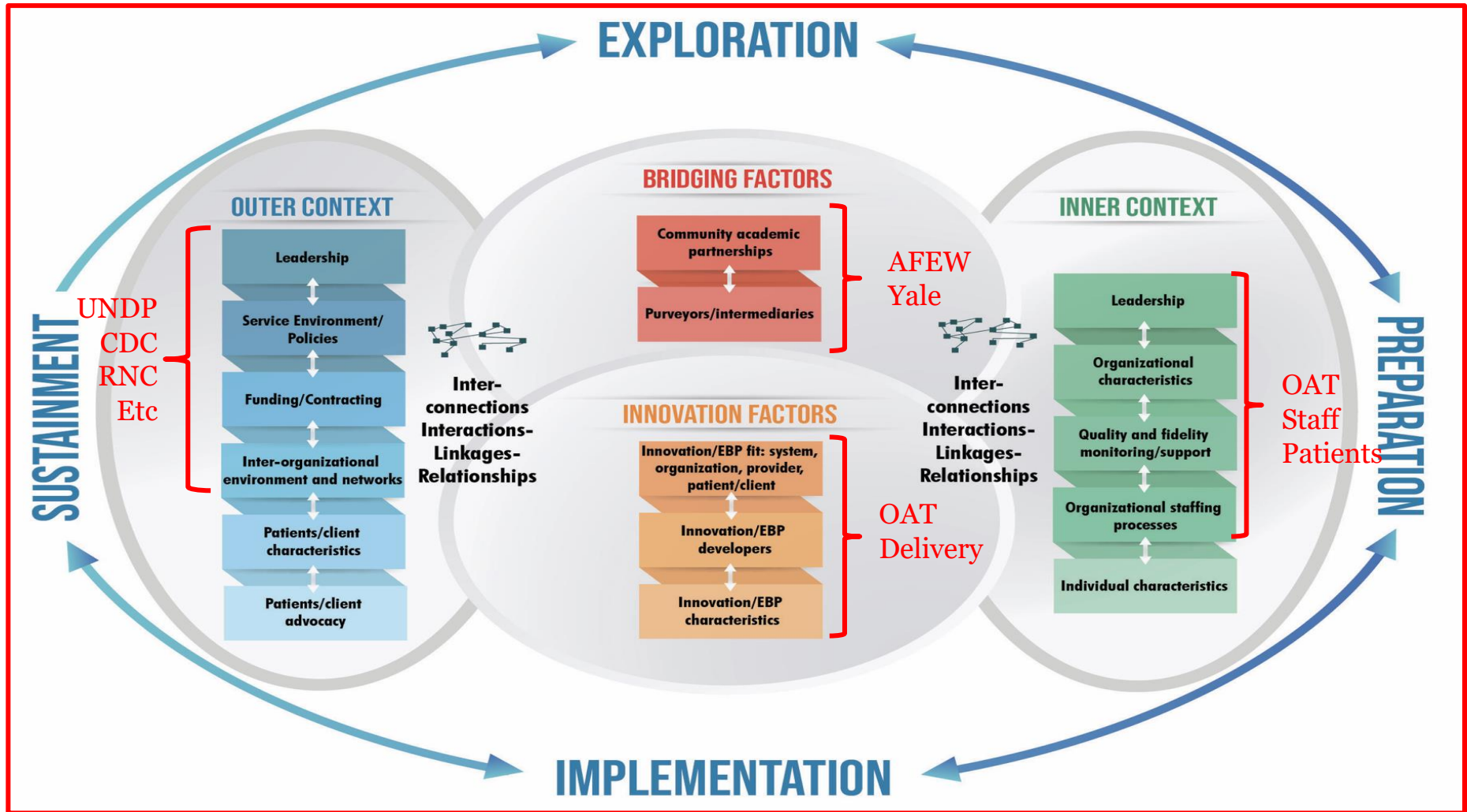


Evidence-Based Strategies to Prevent HIV Transmission in PWID



EPIS Framework

Exploration–Preparation–Implementation–Sustainment



Moullin JC, Implement Sci 2019

NIATx Treatment Improvement Model

- A bundle of implementation tools that include expert facilitation (coaching) and quality *process* improvement specifically for behavioral healthcare settings to improve access and retention in treatment
 - Rapid assessment of barriers (nominal group technique)
 - Flow-charting
- Five principles include:
 - 1) understand and involve the customer;
 - 2) fix key problems;
 - 3) pick a powerful change leader;
 - 4) get ideas from outside the organization or field;
 - 5) use rapid-cycle (PDSA) testing to document changes.

Exploring Barriers and Facilitators to Implementation

Nominal Group Technique

- 1 - Метадон это лекарство §1+2
- 2 - Информирование об опиоидной зависимости (хр. заболевание - не вылечено может дать "хорошую" ремиссию) §
- 3 - Как "работает" (механизм действия) метадона §
- 4 - В чем разница / сходство метадона и героина (метадон - это наркотическое синтетическое средство), ~~и~~ ^{достоинства} преимущество метадона (впл. в общество)
- 5 - Как. вариацию информации 1+1 2
- 6 - Длительная терапия (\approx год ...) 1 1
- 7 - Важность поддержки семьи / окружения значимое
- 8 - Для безработных открываются возможности для работы (изменили образ жизни), создаются
- 9 - Бесплатно для пациента 3 (3)
- 10 - Наблюдение значимого окружения (семья, за сестрами и, т.д.) во время
- 11 - оказания помощи (психо-соц. поддержка) профилактика "срыва"

1 место: $\sqrt{2,4,9} = 30 \text{ аннг}$

2 место: $\sqrt{1, 4, 5, 7} = 209419$

3 место: $\sqrt{6} - 1$ день

Что должны знать
близкое окружение / родствен-
ники о программе ПТМ?

Бесплатная программа

- что такое ПТМ: ^{бюджетный} действительные мероприятия; ^{дождь, частый} услуги; ^{вот так} выплаты Пог.
- СРОКИ бессрочны для краеш. заб-и
- Эффективность программы

~~Вывод~~ Снизиле рисков индуст. ИППП ВЧ, гнВ

- ✓ - Поддерживать контакт с персоналом сайта

- услуги сайта (тестирование на ВИЧ, ТБ, ...)

получить в воент. правт. сессии)
документов; инва-консультац. узких специали-
стов; органы ООН + президенты
в доме престарелых

Возможность продолжения МЛС.

✓ Права и обязанности партнеров, их доли + условия хранения доли + стоимость + от

- Возможна выработка к убитым препаратам и ТБ-инфекции

- Возможность АКТ в том числе и в перекресте.

Возможные проблемы с шиммицией; влияние осцилляторов на работу

2018. 1. 11. 10:00 - 11:00

- 1 - Метагон это лекарство $\$1 + 1 \pm 2$
- 2 - Информирование об опиоидной зависимости (хр. заболевание - не вылечиваемо, но может дать "хорошую" ремиссию) $\$1 + 4$
- 3 - Как "работает" (механизм действия) метагона $\$5$
- 4 - В чем разница / состоит метагон и трана (метагон - это наркотическое синтетическое вещество, трана - приемущество метагона (вм, втс) $\$1 + 3$
- 5 - Как ^{осуществление} верную информацию $\pm 1 + 2$
- 6 - Длительная терапия (\approx год ...) ± 1
- 7 - Важность поддержки семьи / окружения $\pm 1 + 2$
- 8 - Для образованных открыта возможность для работы (личных образцов), создания семьи
- 9 - Бесплатно для пациента $3(3)$
- 10 - Наблюдение за многолетним окружением (самым, роком, 8-10)
- 11 - Оценка психического (психо-социал. поддержка) профилактика "срыва"

1 место: $\sqrt{2, 4, 9} = 30 \text{ баллов}$

2 место: $\sqrt{1, 3, 5, 7} = 2 \text{ балла}$

3 место: $\sqrt{6} - 1$ см

Barriers to Methadone Scale-up

Nominal Group Technique

Group 1

- Inaccurate information about methadone (5)
- Low motivation by patients for treatment (5)
- Myths about methadone (3)
- Registration procedures (3)
- Prison "caste" system (3)
- Stigma towards methadone clients (2)
- Medical comorbidities (2)
- Need for family support (1)
- Geographic limitations
- Healthcare system stigma

Group 2

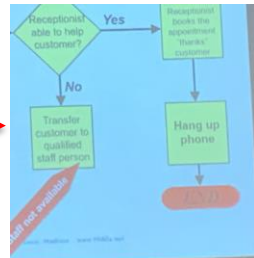
- Stigma towards methadone (7)
 - Prison "caste" system (3)
- Myths about methadone (5)
- Registration procedures (4)
 - Documents required
- Uncertainty about future (1)
- Daily supervision
- How long to remain in treatment
- Low public awareness
- Policing near methadone program
- How methadone patients appear

Patient-Perceived Barriers to Methadone

- Bad reputation of methadone program (N=7)
- Too many logistical barriers for entry (N=5)
- Methadone is trading one addiction for another (N=4)
- Unclear expectations of program (expected cure) (N=4)
- Rigid policies for supervision/limited hours (N=4)
- Treated poorly by doctors (N=3)
- Interfered with their work (N=2)
- Not supported by families (N=1)
- A place to go to as a last resort

Implementation Tools - NIATx

Flow
Charting



NGT

Stimulus
Lectures

Understanding and Involving the Customer



Funders



Site Visit



Site Visit



Collaborative Learning and Team Building



NIATx Treatment Model

**Reduce
Waiting Times**

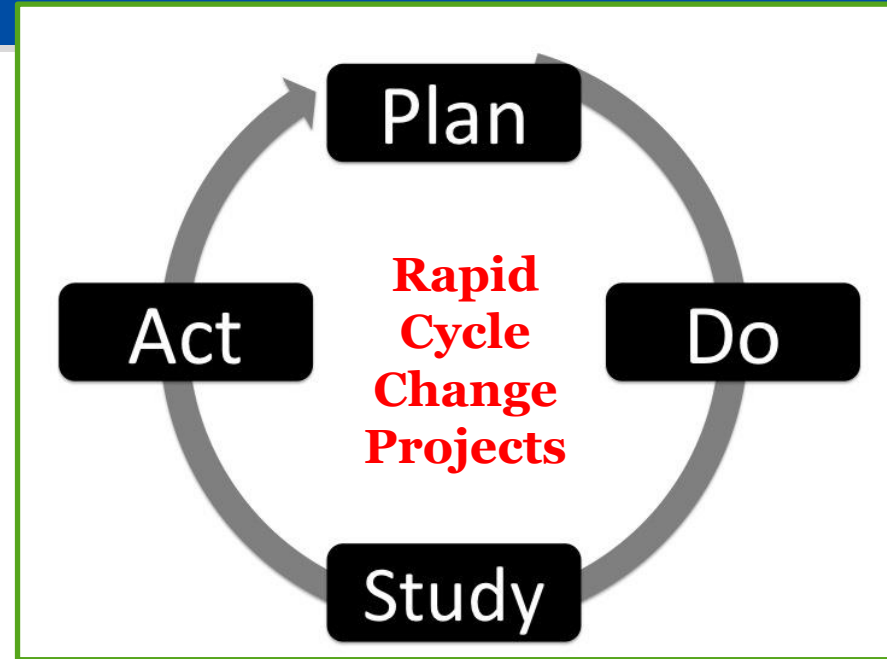
**Reduce No
Shows**

**Increase
Entry into
OAT**

**Reduce OAT
Dropout**

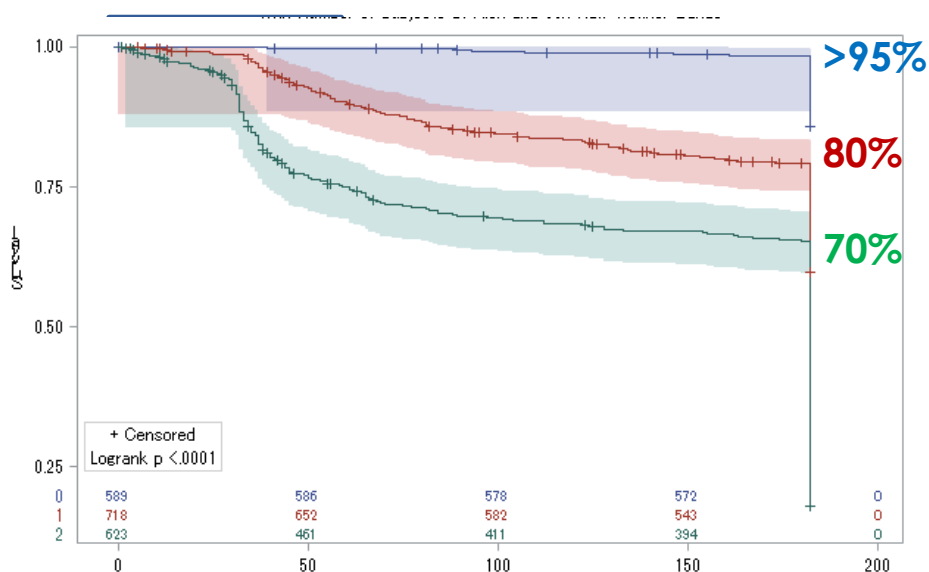
**Improved OAT
Outcomes**

↑ 1° & 2° HIV Prevention & QoL;
↓ addiction severity & drug use

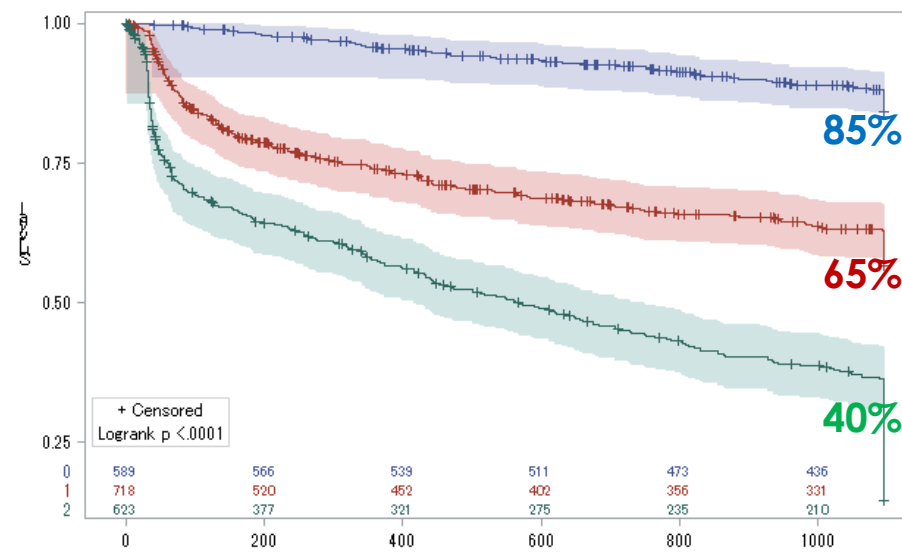


OAT Retention and Dosing: Kaplan Meier SCs

< 40 mg 40 – 85 mg >85mg

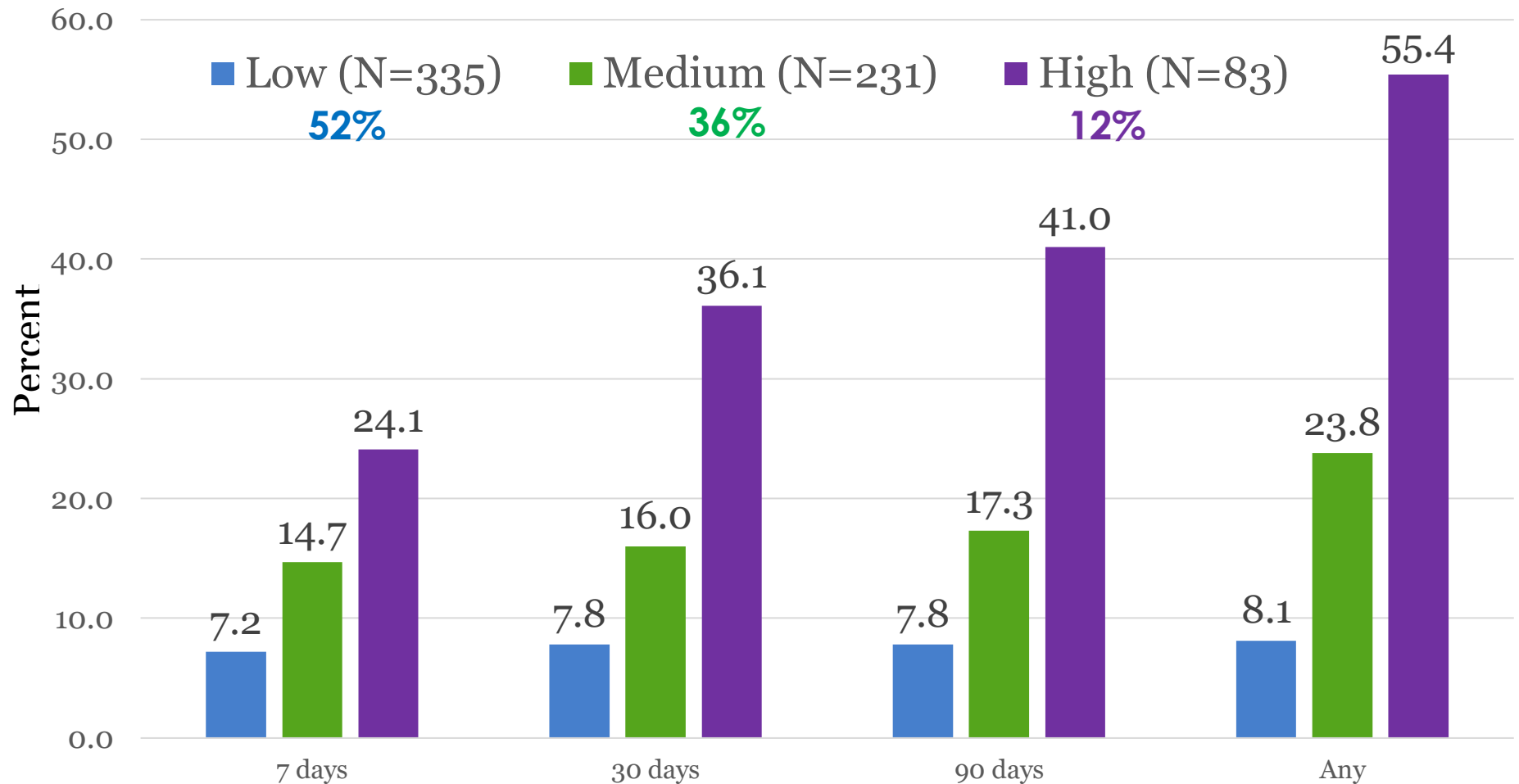


6 months



3 years

Linkage to Methadone After Release From Prison (N=649)

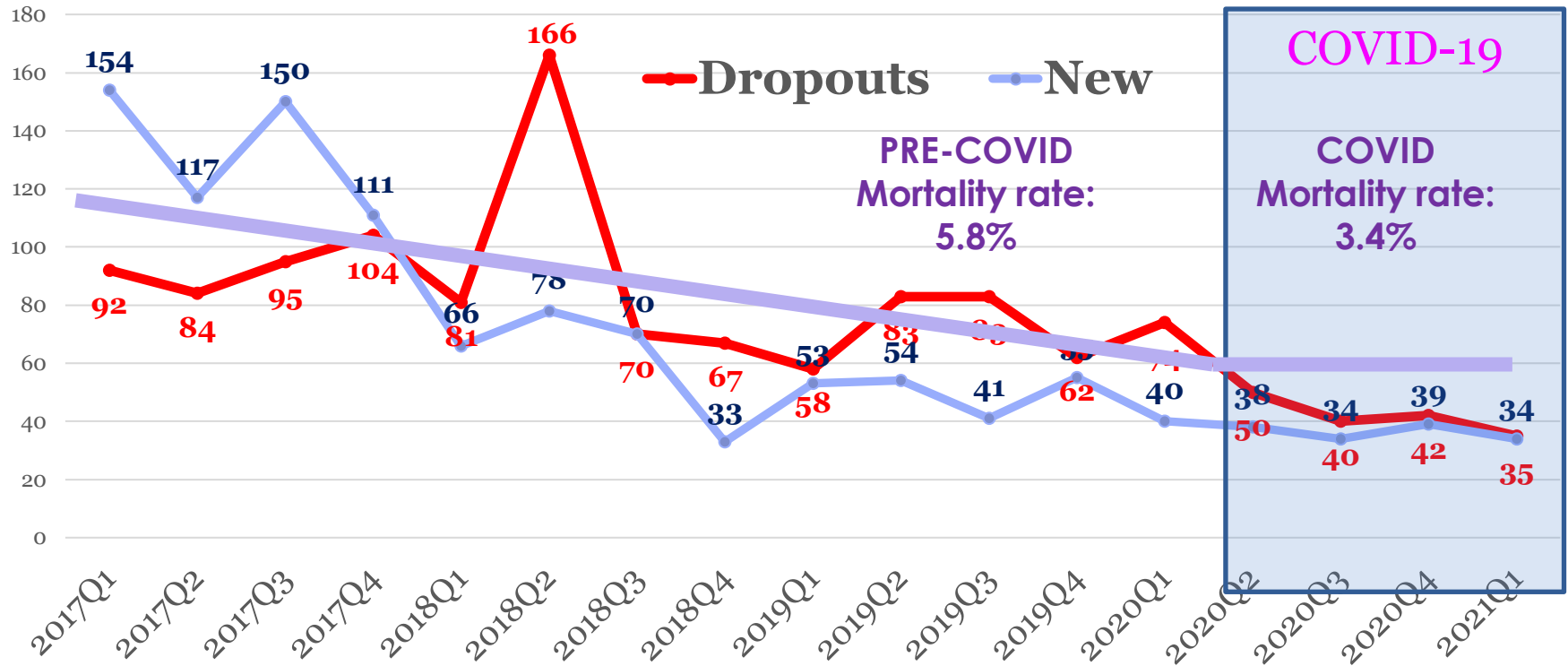


Bachiredy C, IJDP, 2022

Opportunities for Change Projects

- **Planned change projects**
 - Increase the proportion of patients on 90mg or more per day
 - Community and prison settings
 - Focus on patients who are on the "standby" list
 - Supplemental counseling for positive drug tests
 - Work to support families
 - Increase proportion who are HIV tested
 - Enhance transition from prison to communities

OAT Patients: New Admissions vs Dropouts



Opportunity: What Happened During COVID that resulted in fewer dropouts while new admissions stayed about the same?
Increased Take-home dosing

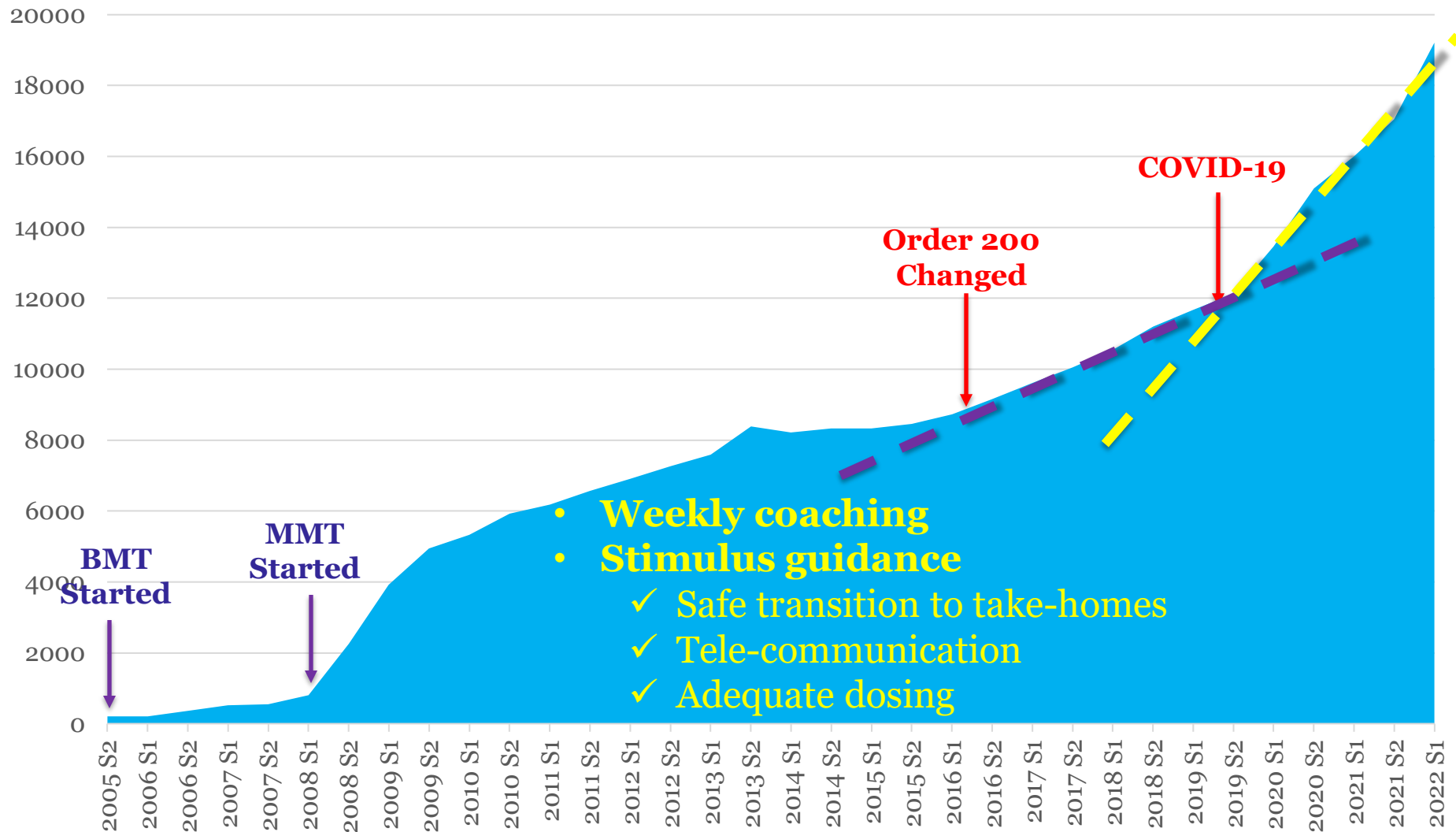
Preliminary Outcomes

- OAT increased by 8% in Bishkek but continued to drop outside of Bishkek
- Change projects that achieved the best results:
 - Enhanced treatment in prisons and linkage to the community
 - Enhanced dosing strategies
 - Maintained patients on take-home dosing
 - Quick-start dosing → logistical work-up after stabilization
- Implementation products
 - Educational tools for patients and families
- Bridging Factors
 - Global Fund and CDC adopted performance indicators and P4P
 - New guidelines developed with fewer demands on patients and providers
 - Now planning to work throughout 3 countries in Central Asia

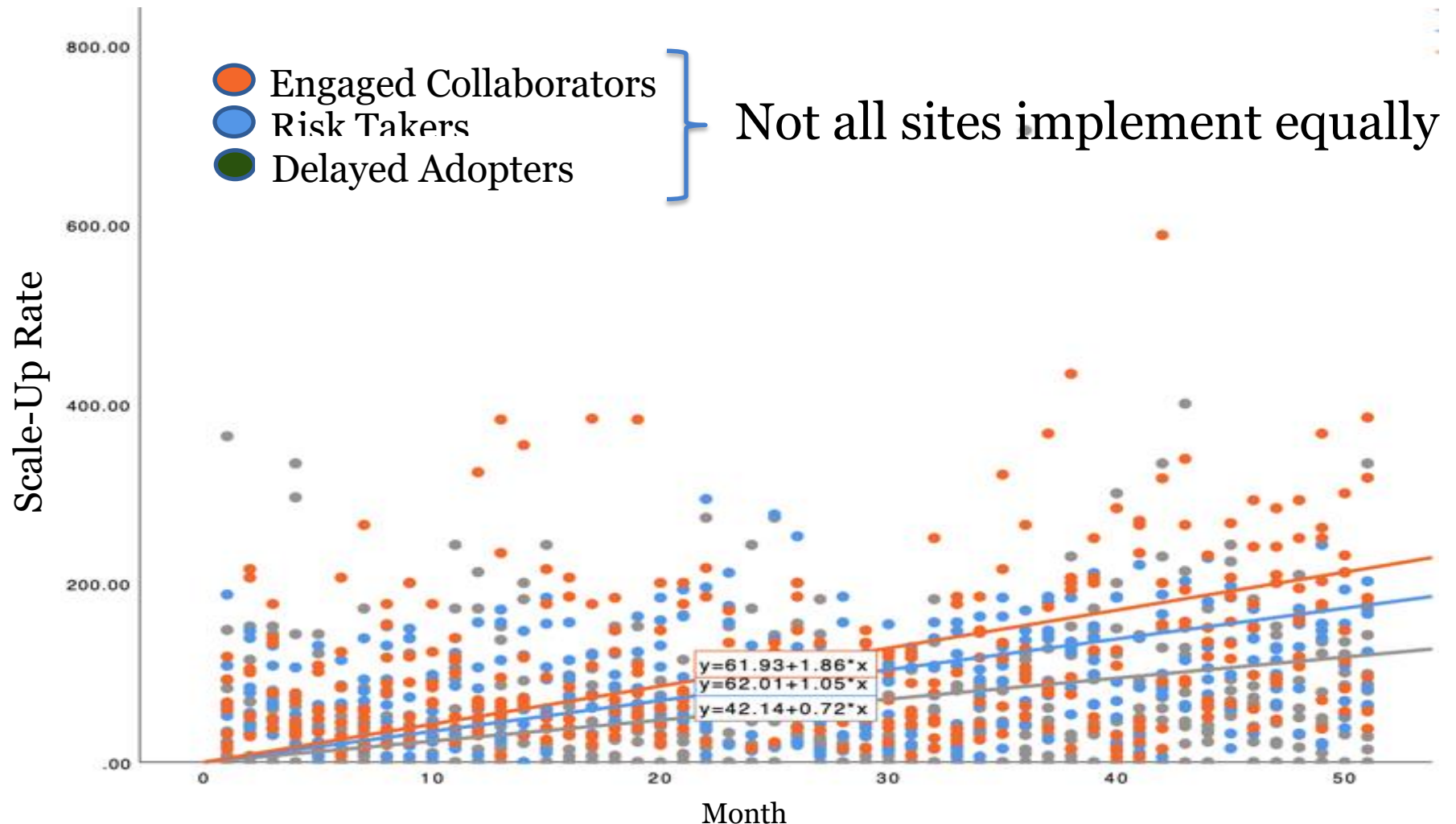
Ukraine



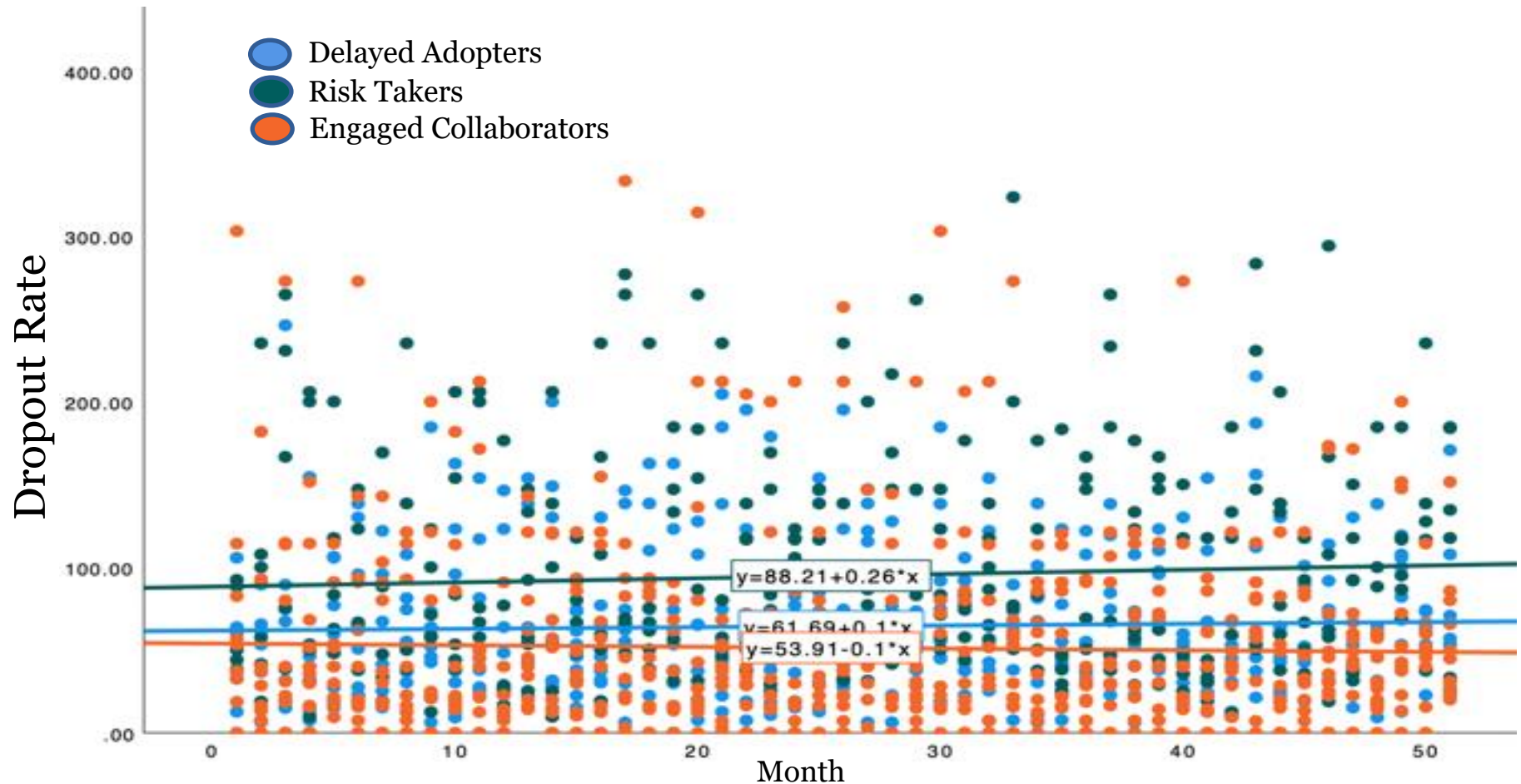
OAT Scale-up in Ukraine – COVID-19 as a Disruptor



NEW Admission Rate (Entry) by Month by Three Clusters after Order 200 Changed





Dropout Rate by Month by Clusters After Order 200 Changed



VIEWPOINT | VOLUME 7, ISSUE 5, E482-E484, MAY 01, 2022

Extending a lifeline to people with HIV and opioid use disorder during the war in Ukraine

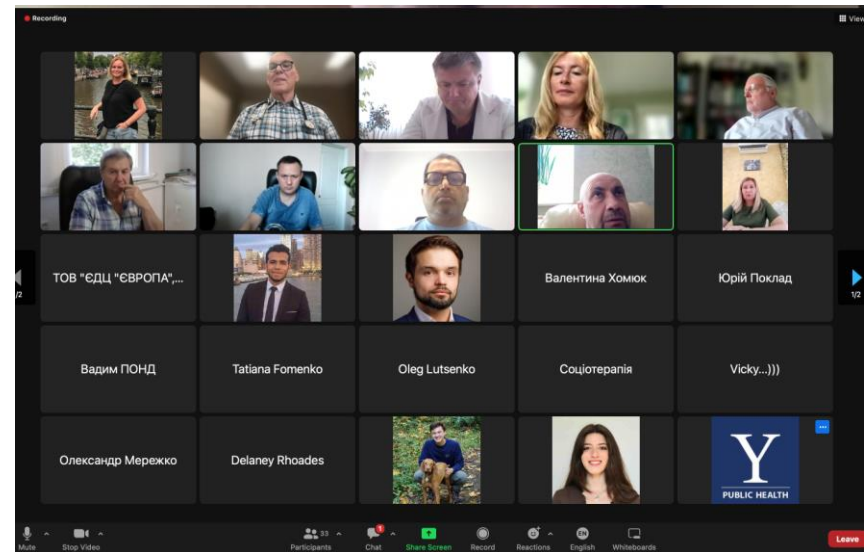
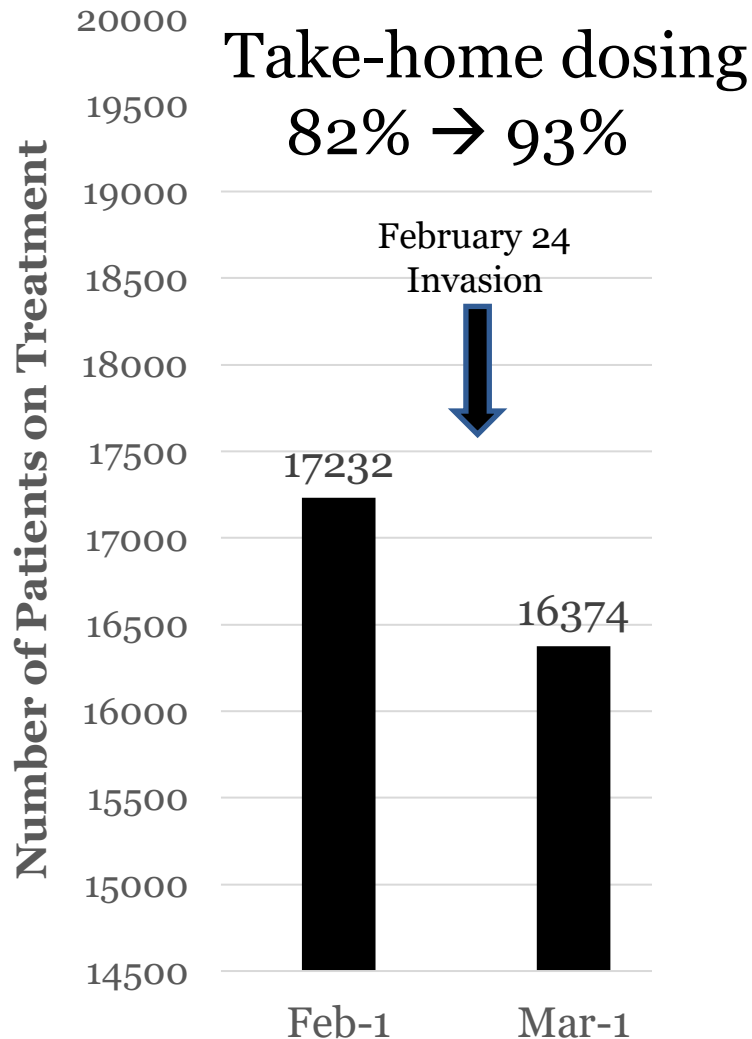
Prof Frederick L Altice, MD   • Daniel J Bromberg, MSc • Sergii Dvoriak, MD • Anna Meteliuk, MPH •
Iryna Pykalo, MPH • Zahedul Islam, MBA • Lyu Azbel, PhD • Lynn M Madden, PhD • Show less

February 24, 2022

Lancet Public Health, 2022



OAT Scale-Up After the Invasion by Russia



2022

Slava Ukraini!

