The Economics of a National HCV Strategy

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EXCEPTIONAL CARE. WITHOUT EXCEPTION.

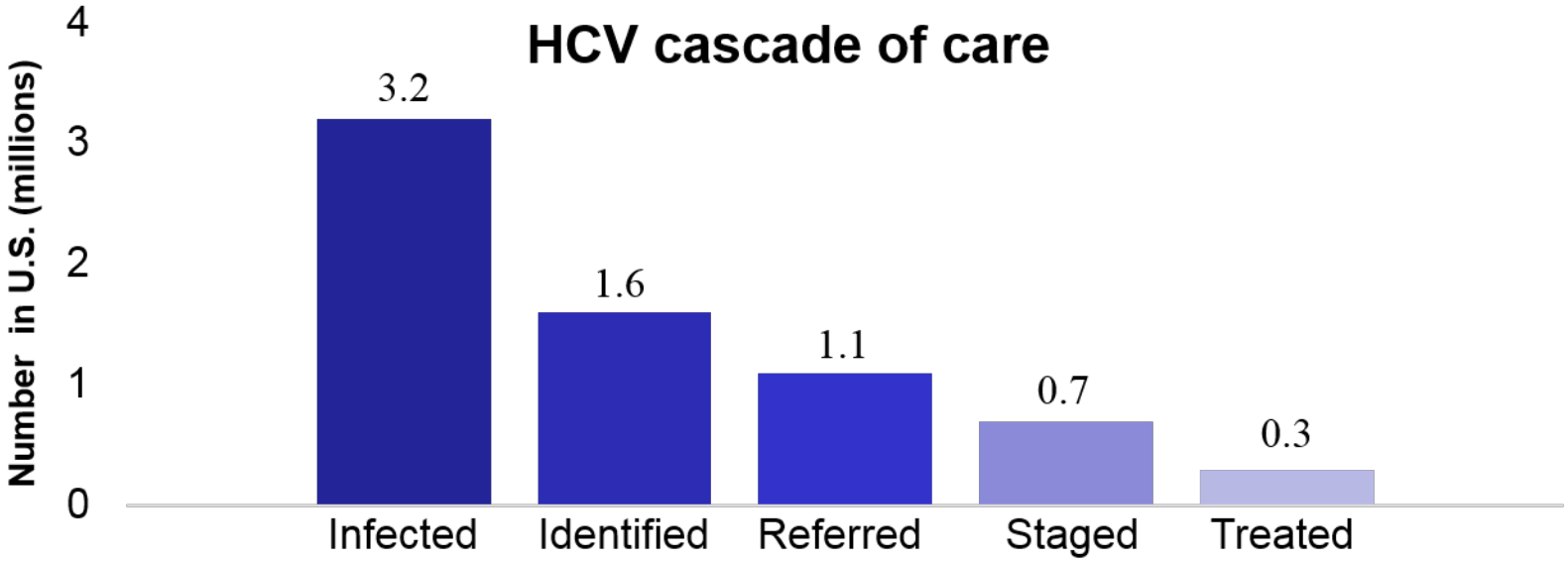
CHERISH
Center for Health Economics of Treatment Interventions for Substance Use Disorder, HCV, and HIV

NIH National Institute on Drug Abuse
The Science of Drug Abuse & Addiction

The epicenter of the epidemic

- 28 year old male injection drug user
- Last drug use 4 months ago, now on buprenorphine/naloxone
- Genotype 1a; RNA = 4.5 million copies
- Platelets = 250, albumin 3.8, AST/ALT 90s, INR = 1.1
- Fibroscan 2.1 kPa

A long journey to this point



Assessment and plan

- Treatment naïve, non-cirrhotic, GT1a
- Substance use disorder being treated
- Plan HCV therapy?
- Agnostic between regimen options
- Must process prior authorization

“Denied” vs. “Deferred”

- Payer refused authorization due to early stage disease and substance use
- Appeal not successful
- Now waiting with q12 month Fibroscan?

Lost opportunity

Cost is THE issue in HCV

- Cost of drug limits access to HCV treatment in 2016
- Partial access = partial strategy
- We cannot discuss elimination unless we first address access

Overview

1. What is “value” in medicine?
2. The value of HCV screening
3. The value of cascade interventions
4. The value of treatment
5. Tension between value and affordability

WHAT IS “VALUE?”

What is cost-effectiveness?

- Quantifies the value of treatment
- Seeks to maximize impact
- Has the same goal as all other public health research – to improve public health

Cost-effectiveness analysis

- Two outcome measures
  - Cost ($)
  - Effectiveness (quality-adjusted life years)
- Incremental cost-effectiveness ratio (ICER):

$$\frac{\text{Additional Resource Use (\$)}}{\text{Additional Health Benefits (QALY)}}$$

$42,000/QALY

What are we willing to pay?

Treatment	$/QALY *
ART for HIV infection [1]	$31,500
Statins for primary prevention [2]	$47,700
Implantable defibrillators [3]	$81,900
Dialysis, seriously ill adults [4]	$187,000

* Converted to 2015 currency year

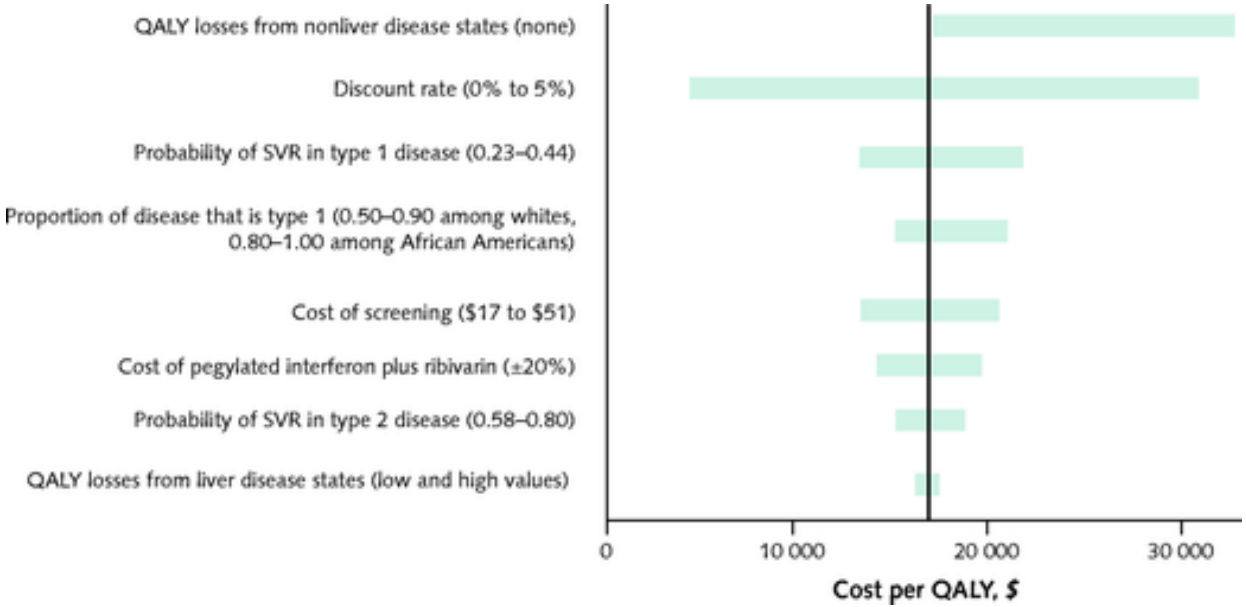
[1] Freedberg et al. NEJM
[2] Pletcher et al. Annals Internal Medicine 2009
[3] Sanders et al. NEJM 2005
[4] Hamel et al. Annals Internal Medicine 1997

Cost-effectiveness 101

- Maximizes population-level benefits of medical therapies
- DOES NOT seek to minimize cost
- Requires an explicit decision about willingness to pay

WHAT IS THE VALUE OF HCV SCREENING?

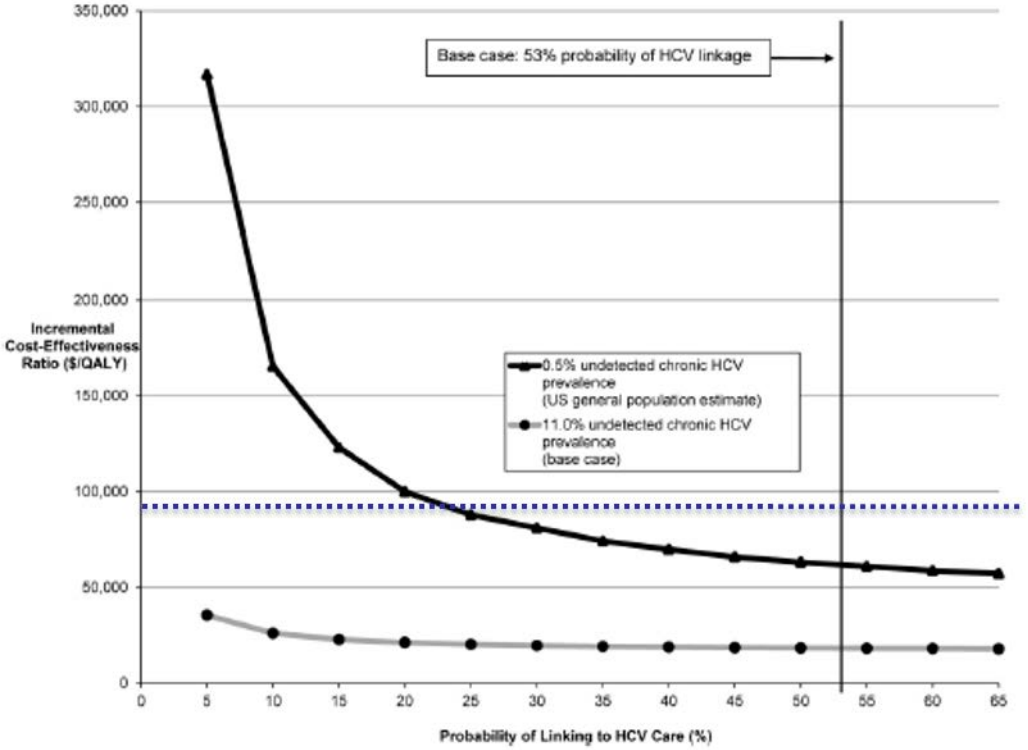
“Birth-cohort” screening



Rein et al. Ann Intern Med. 2012;156(4):263-270.

http://annals.org/aim/article/1132687/cost-effectiveness-birth-cohort-screening-hepatitis-c-antibody-u-s

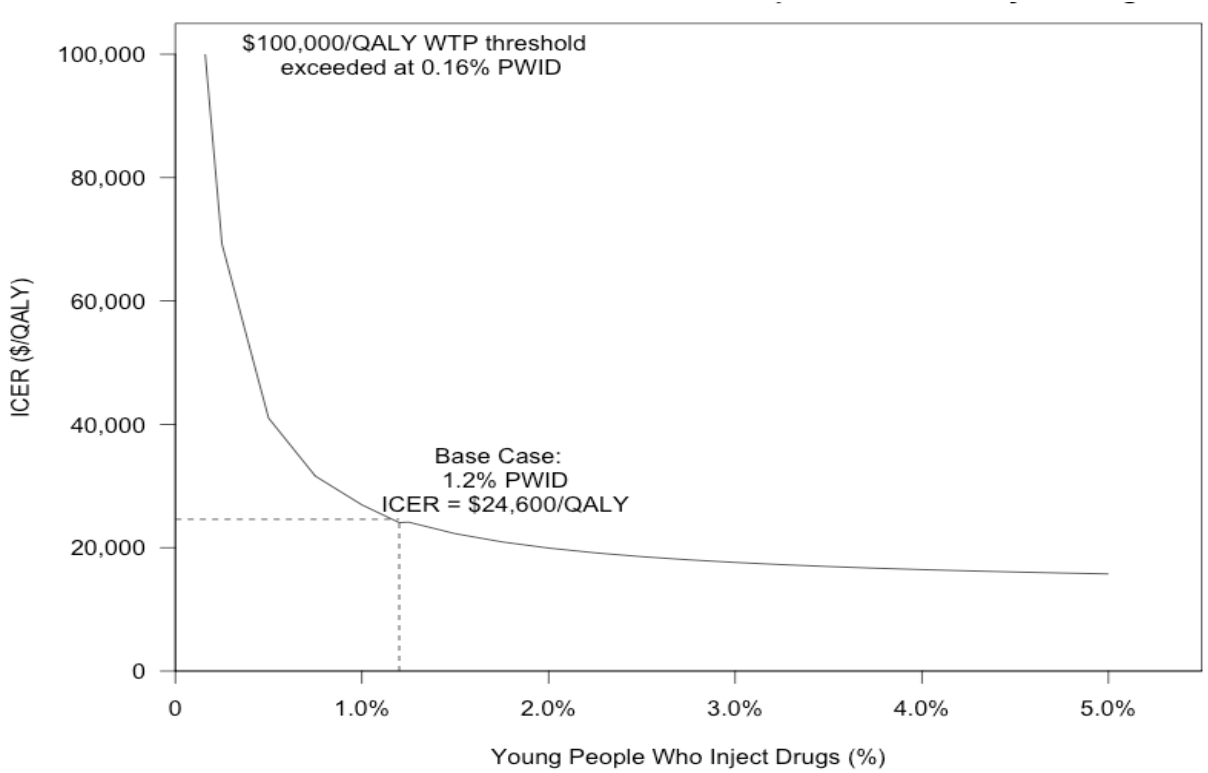
Screening in drug treatment



- HCV screening drug treatment programs provides good value
- Despite poor linkage
- Even with HCV testing in the community

Schackman et al. Addiction. 2015 Jan;110(1):129-43

Beyond “birth cohort”

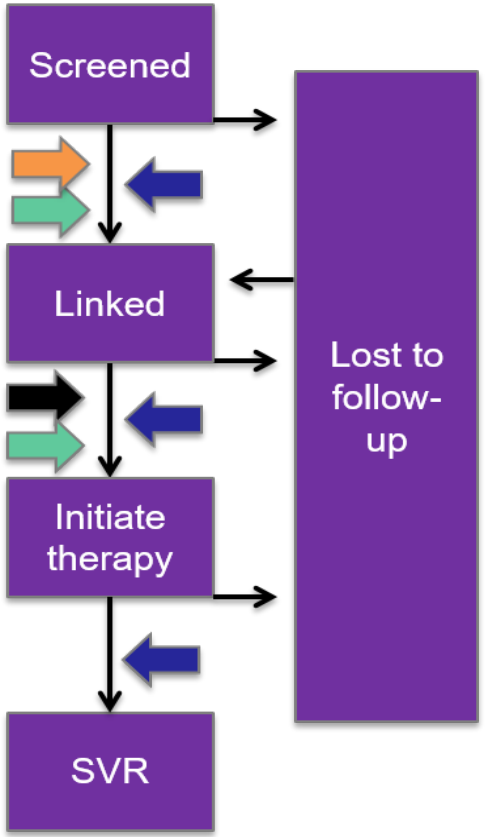


Assoumou et al. IDSA 2016 Abstract

HCV screening provides good value

WHAT IS THE VALUE OF LINKING TO HCV CARE?

Intervention candidates



Linkage to care intervention increases linkage by 10 percentage points

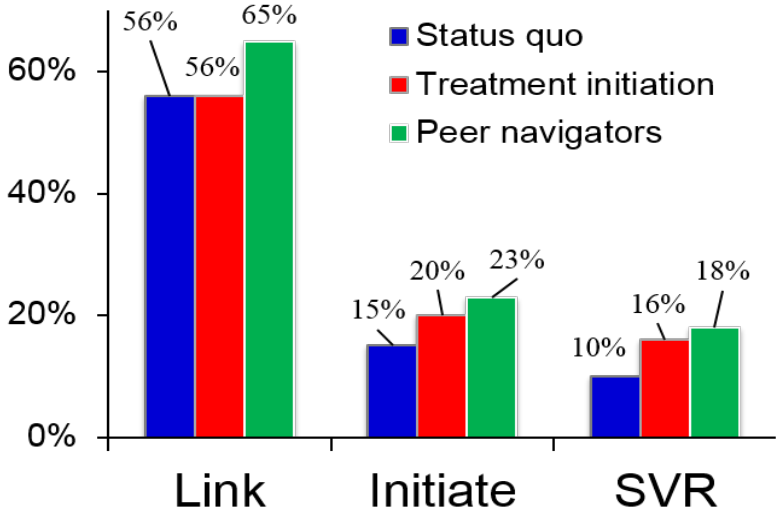
Treatment initiation intervention increases initiation by 10 percentage points

Integrated case management increases linkage and initiation by 10 percentage points

Peer navigators increase linkage, initiation, and adherence by 10 percentage points

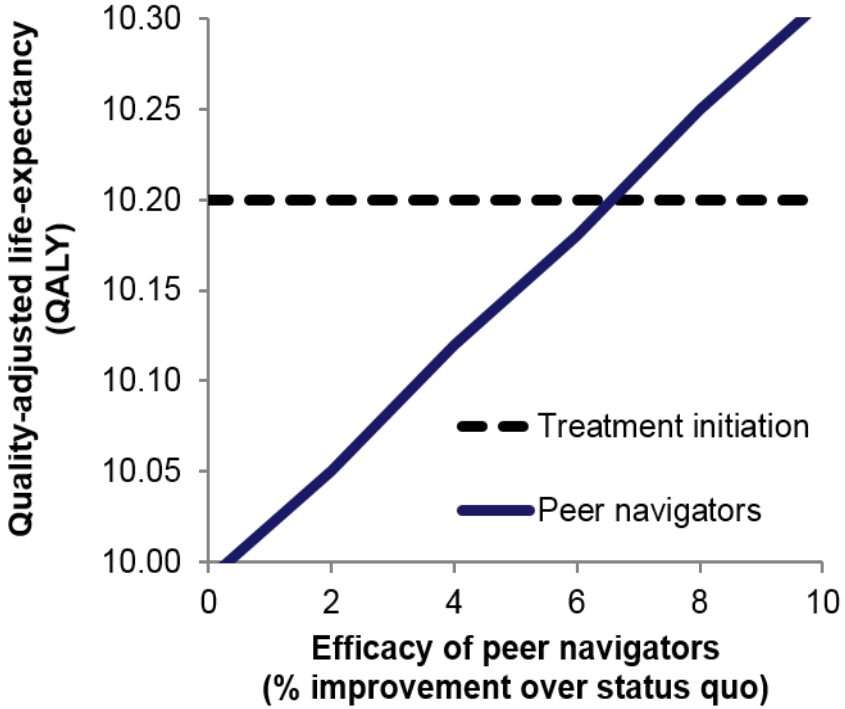
Don’t fragment the cascade

Comprehensive interventions provide best outcomes

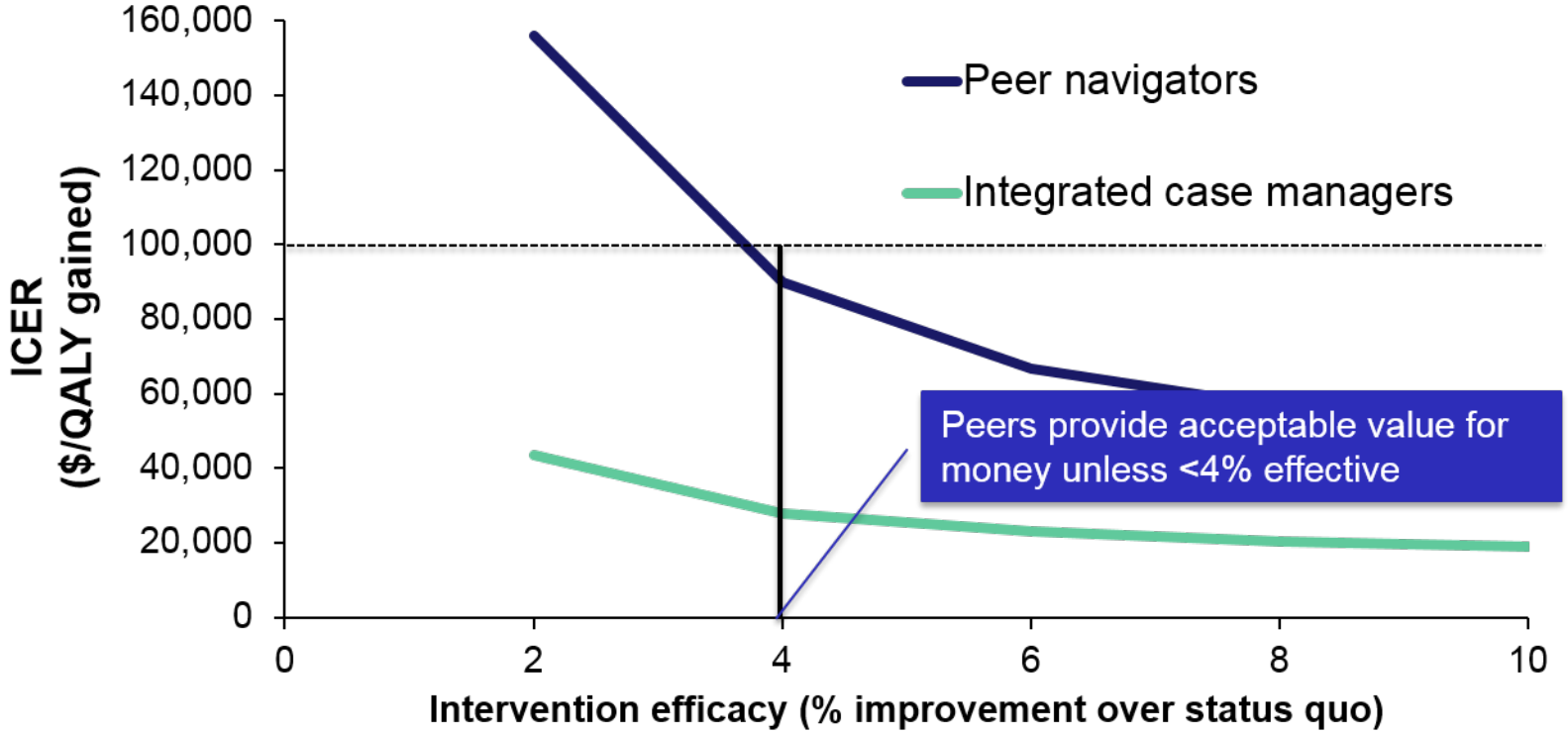


Bar graph depicting the percentages of patients who are linked to care (set of bars on left), initiate treatment (set of bars in the middle), and achieve SVR (set of bars on the right). Within each set of bars, representing a stage of care, the impact of interventions are shown for each in 3 different scenarios - the status quo (left bar), when treatment is initiated (middle bar), and with the inclusion of peer navigators (right bar).

Even when less effective at any single cascade step



Peers are cost-effective even if modestly effective



Graph of the incremental cost-effectiveness ratio decreasing with the increased intervention efficacy due to peer navigator support (top line). The bottom line reflects the trend for integrated case manager support.

Think comprehensive and integrated interventions

ARE NEW THERAPIES A GOOD USE OF RESOURCES?

HCV treatment is cost-effective with negotiated rebates

Factors that impact value

- Drug costs
- Fibrosis stage
- Quality of life with early-stage HCV

Factors that do not impact value

- The incidence of HCV re-infection

Value summary

- HCV testing provides good value
- Comprehensive interventions to link and initiate therapy provide good value
- HCV therapy provides good value

WHY DO INSURERS RESTRICT COST-EFFECTIVE TREATMENTS?

Cost-effective ≠ Affordable
Cost-effective ≠ Cost-saving

What is cost-effectiveness?

- Quantifies the value of treatment
- Seeks to maximize impact
- Has the same goal as all other public health research – to improve public health

“Given the resources available, how can we achieve the best possible outcomes?”

What is budget impact?

- Quantifies the cost to a specific budget over the short-term
- Based on principles of accounting
- Has no explicit consideration of outcomes beyond their impact on cost

“If we treat all HCV-infected people in our plan, how much will we spend this year?”

Cost-Effective v. Budget Impact

Cost-effectiveness

- Societal perspective
- Lifetime horizon
- Poor outcomes directly incorporated into ICER

Budget impact

- Payer perspective
- Short horizon
- Poor outcomes incorporated via their impact on cost

What is the budget impact of treating HCV?

What drives budget impact?

- The price of therapy
- The rate of treatment failure
- The incidence of reinfection
- The short-term costs averted by cure

“Price” of therapy depends on:

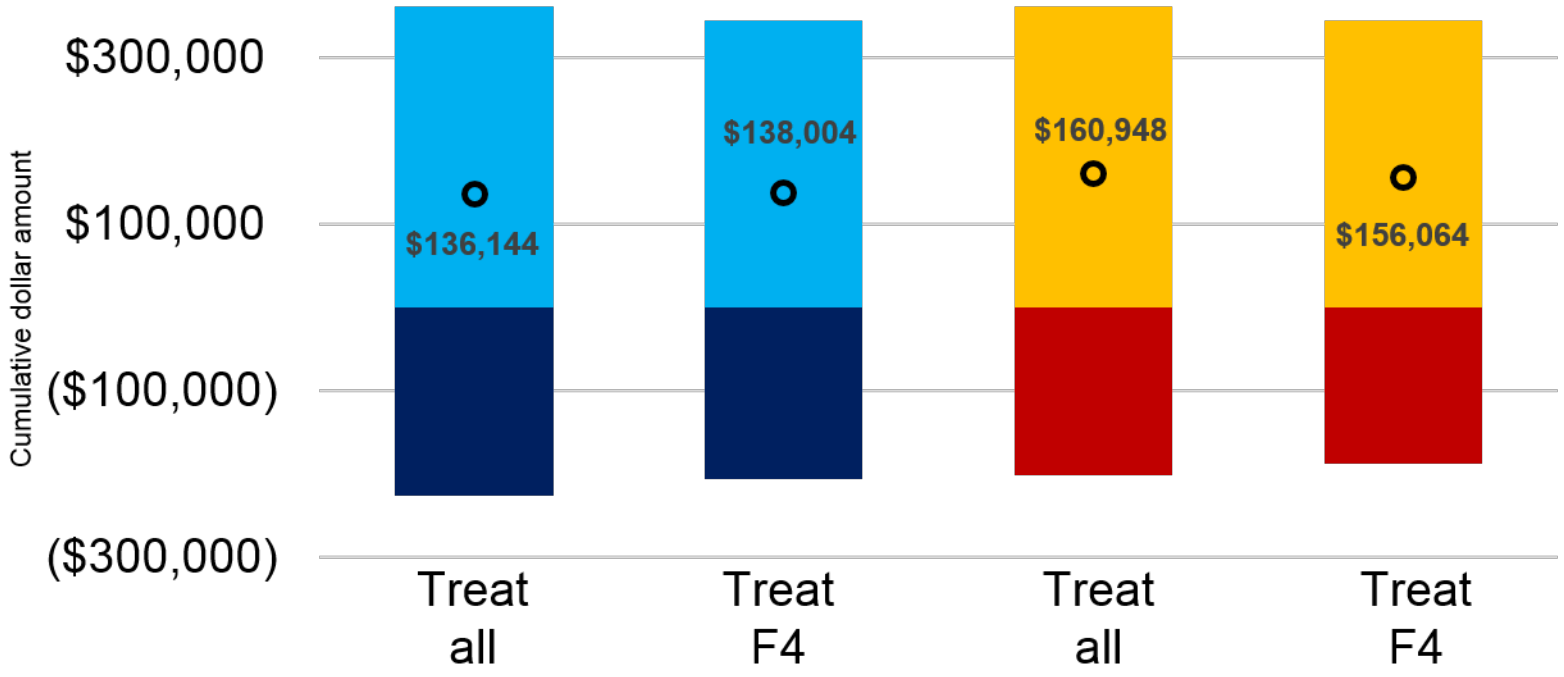
- Where you are
- What type of payer covers you
- Which plan you have within your insurer

Disparities in access

Utilization after SVR

- Not often discussed
- Not known and hard to measure
- Critical to budget impact to payers

Short-term utilization and value



Who will struggle?

- Treatment failures and reinfections do impact budget and limit reach
- We need patient-centered tools to assess preparedness for therapy

Summary

- Screening for HCV is cost-effective
- Linking people to care is cost-effective
- Treating HCV is cost-effective

Summary

BUT – all of these things are costly

Summary

We cannot form a comprehensive national HCV strategy without addressing economic barriers

Summary

We cannot eliminate HCV transmission without addressing economic barriers

CHERISH

- Center for Health Economics of Treatment for Substance Use Disorders, HCV, and HIV
- NIDA funded
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