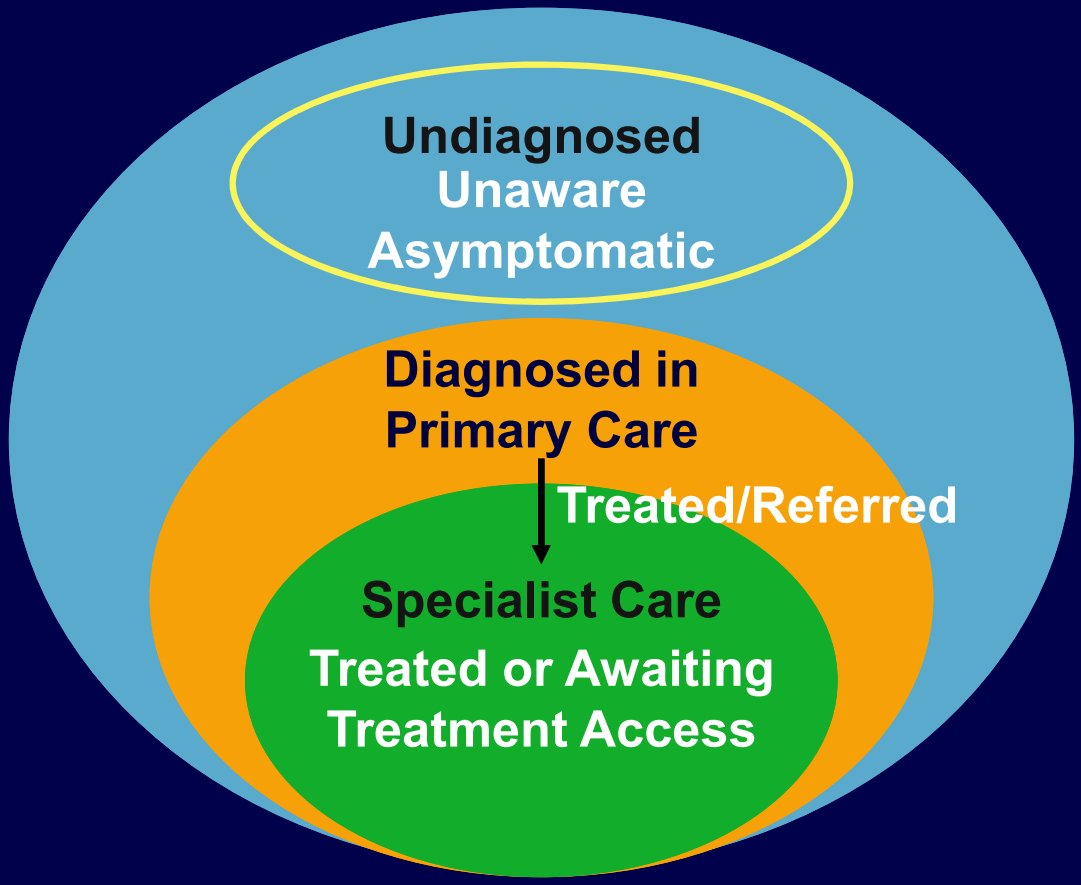
CLINICAL CARE OPTIONS®
HEPATITIS

Engaging the 50%: Increasing Screening and Diagnosis

Jordan J. Feld, MD, MPH

HCV Population



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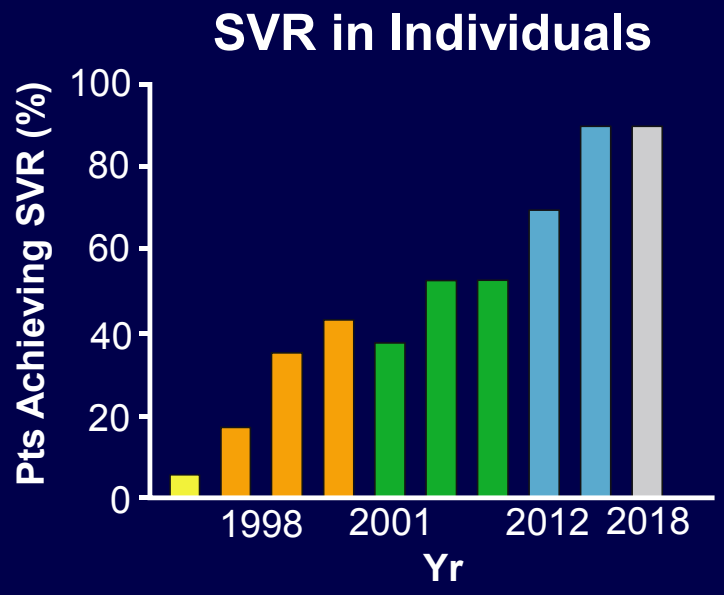
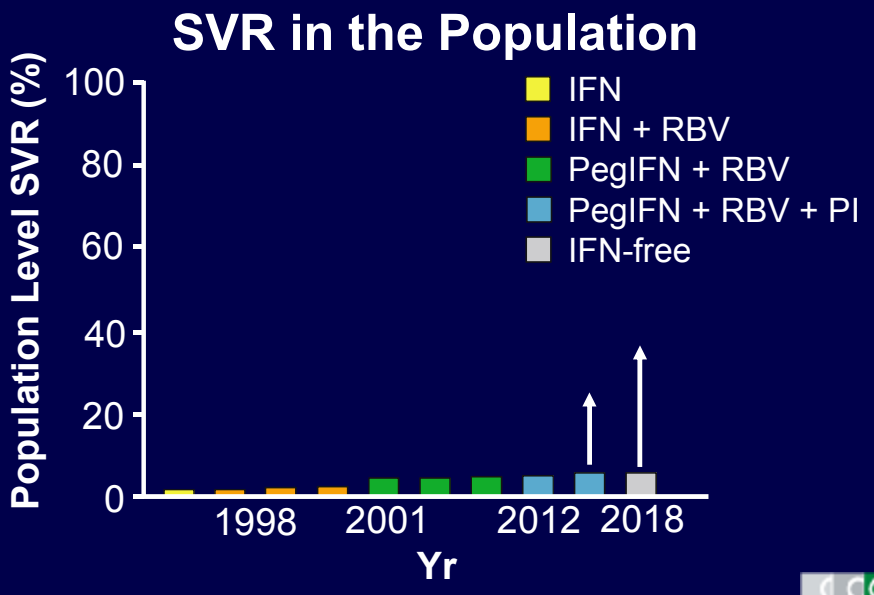
We Need More Than Great Drugs

- Curing the individual is now easy
- Curing the population will take a lot more work . . .





Thomas DL, et al. Antivir Ther. 2012;17:1183-1188.

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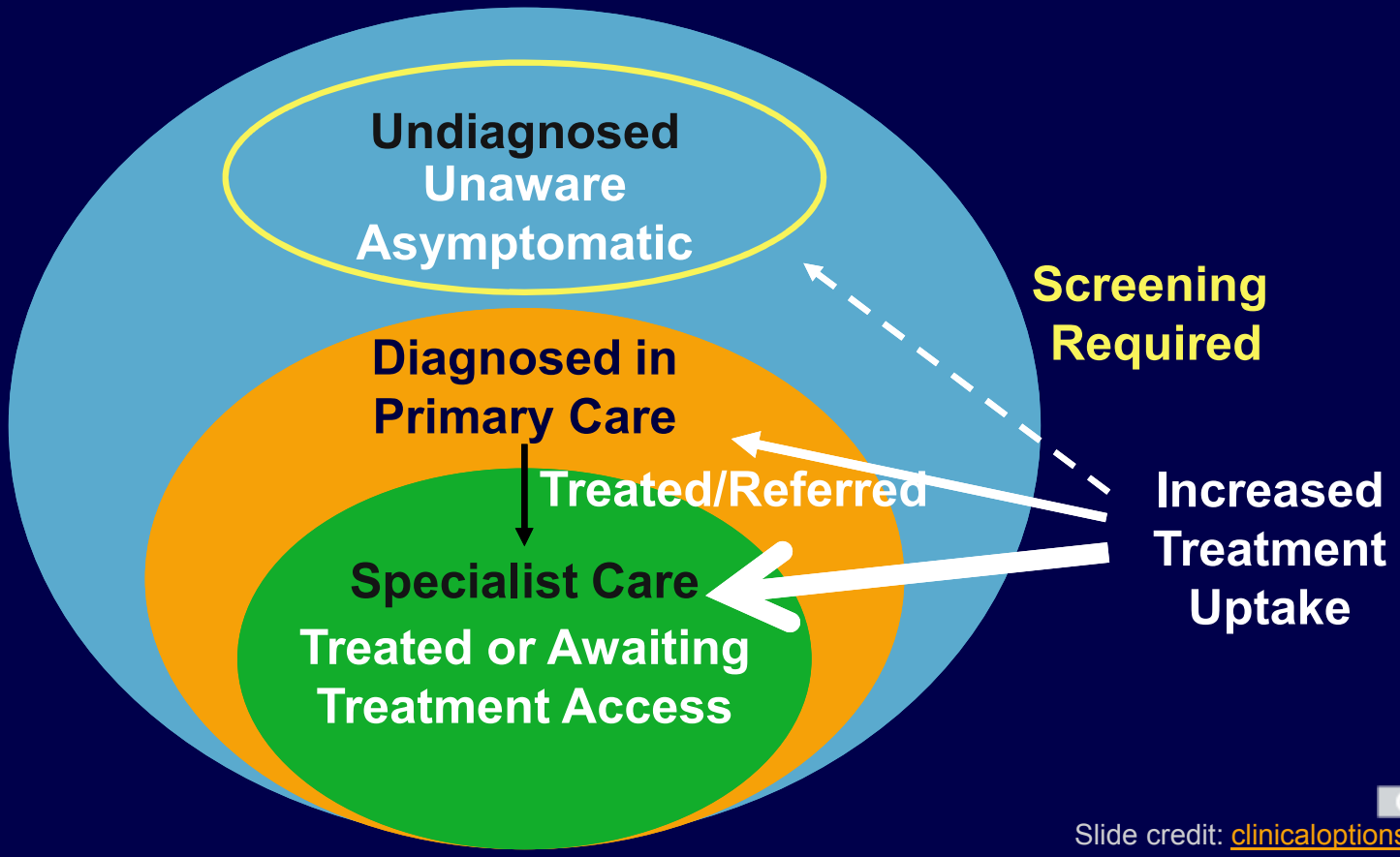
HCV Population



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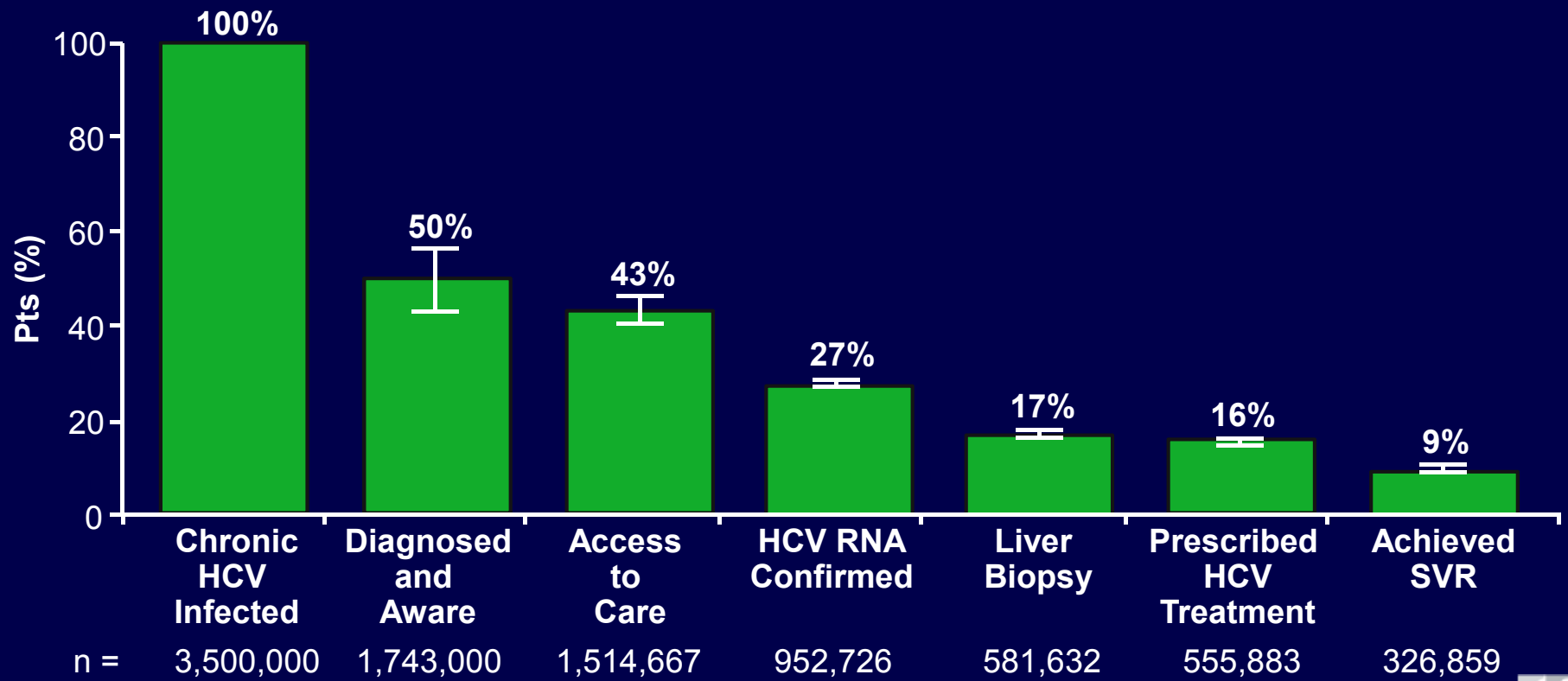
Hepatitis C Virus in the US: Gaps in Current Practice

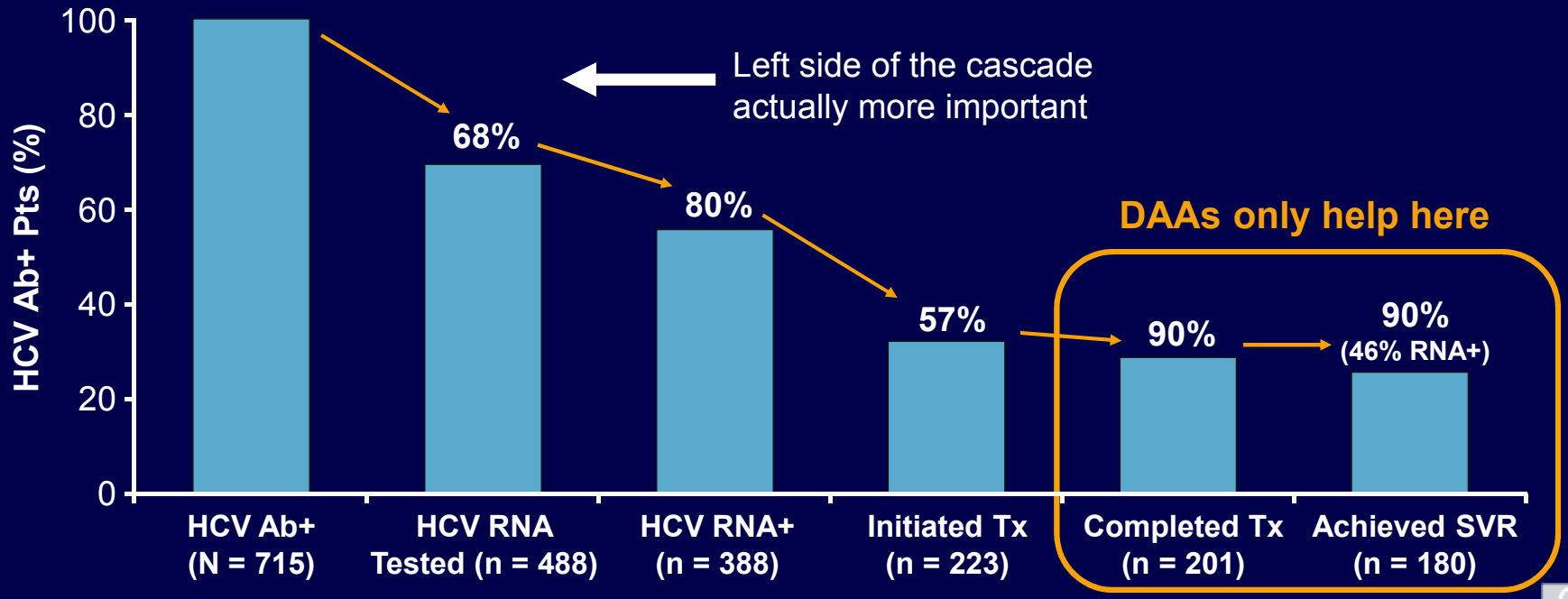


Yehia BR, et al. PLoS One. 2014;9:e101554.

Slide credit: clinicaloptions.com

An HCV Elimination Strategy: Cascade of HCV Care—Cherokee Nation, Oct 2012 - July 2015

§ Oct 2012: HCV testing reminder added to CNHS EHR → 92,012 visits from October 2012 to July 2015 → 16,772 (18.2%) pts tested → 715 Ab positive (4.3%)



Mera J, et al. MMWR Morb Mortal Wkly Rep. 2016;65:461-466.

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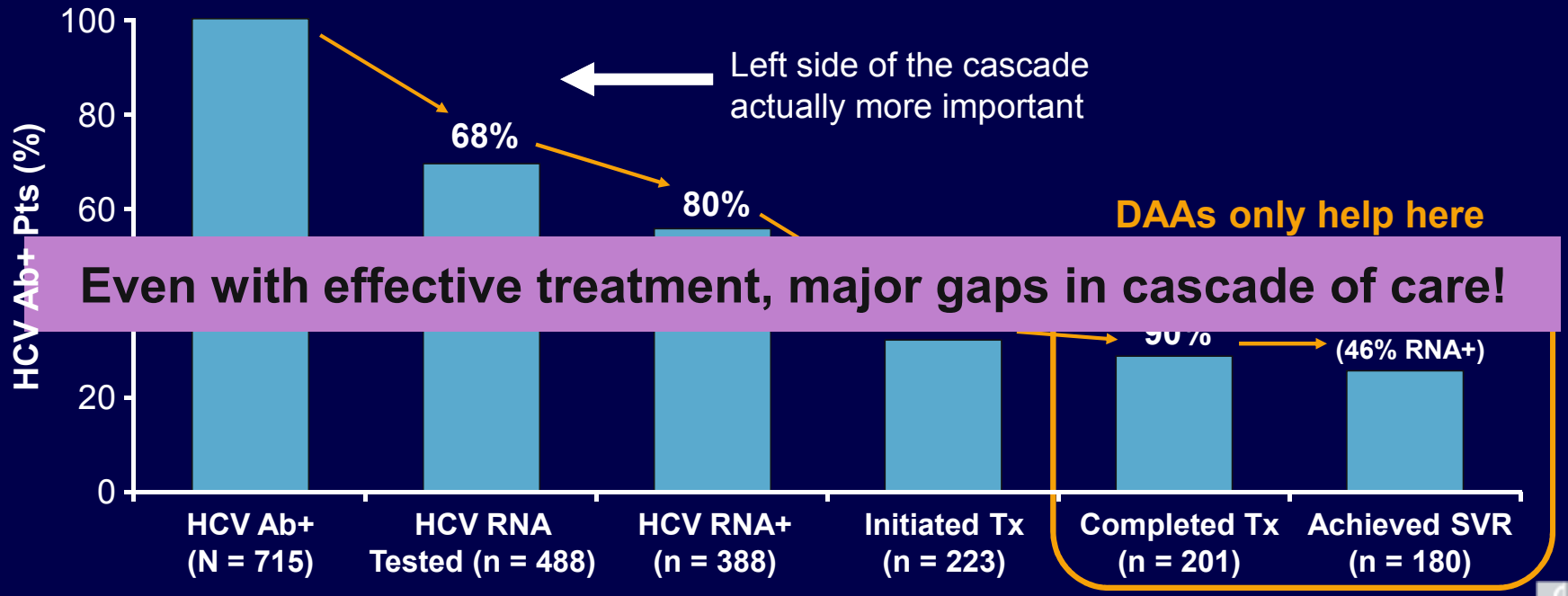

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HCV Screening

The Where	The How	The Who
§ PCP office—birth cohort § Hospital—ED/inpatient § Prenatal § OST § Outreach—homeless shelters, supervised injection sites	§ Current—Ab then RNA § Point-of-care—Ab+ then RNA § Dried blood spot—Ab with reflex RNA § Rapid diagnostic test—RNA	§ PCP—GP/RN § ED staff § Peer workers

All interrelated—the *how* will depend on the *who* and the *where*

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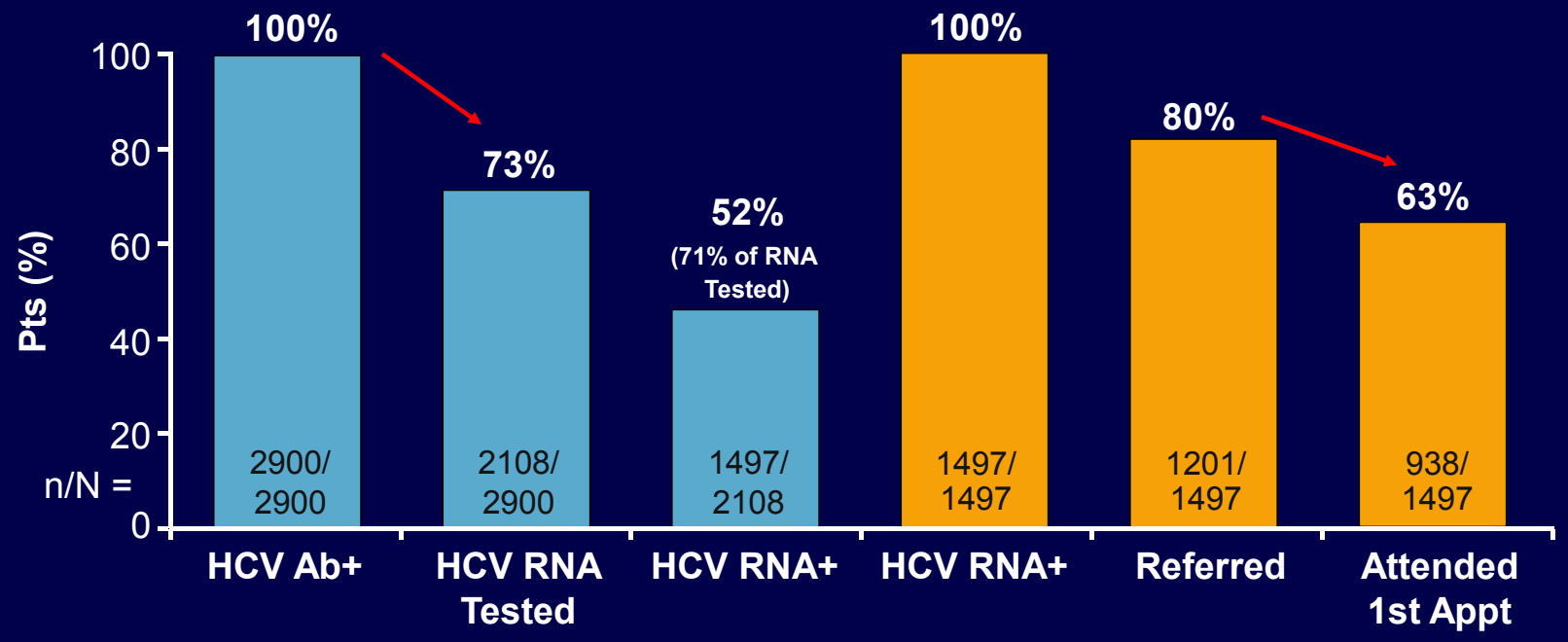
Is Boomer Screening Working?

24,966 boomers tested in urban healthcare settings à 11.6% HCV Ab+!



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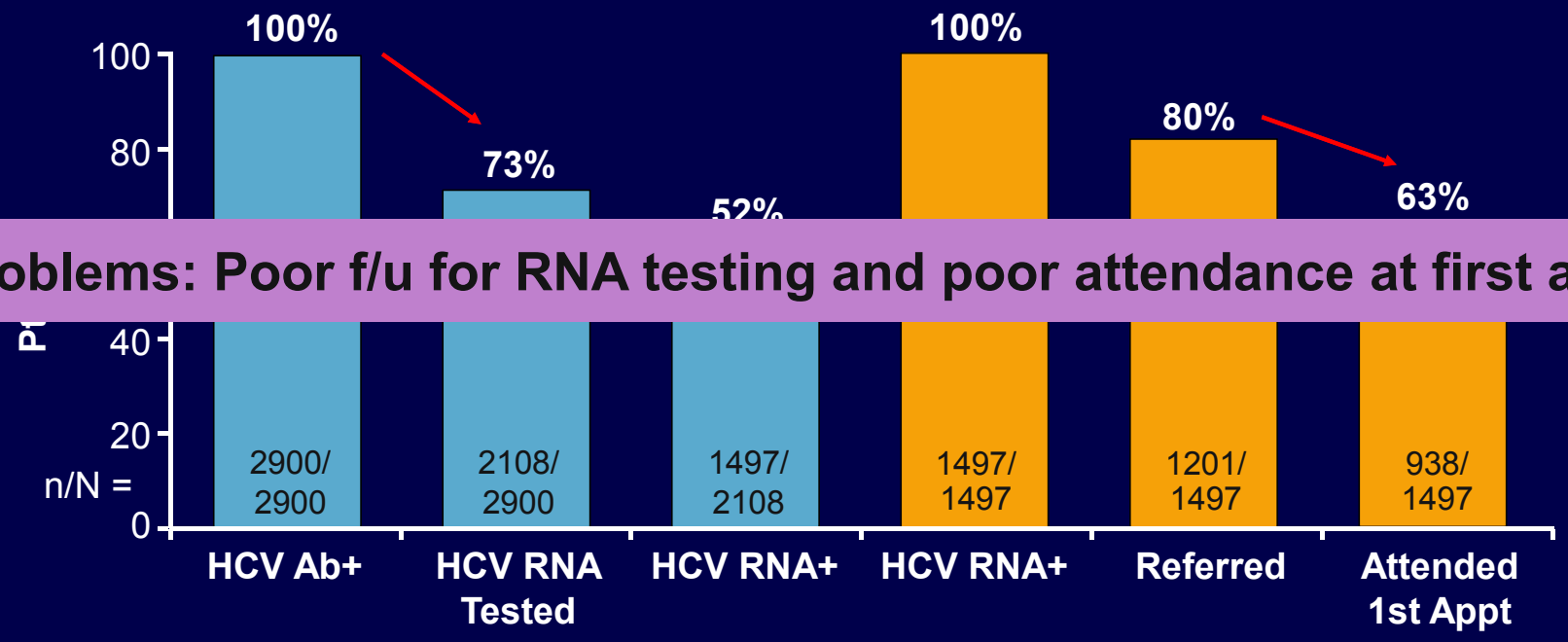

Problems: Poor f/u for RNA testing and poor attendance at first appt

Patel RC, et al. Public Health Rep. 2016;131(suppl 2):12-19.

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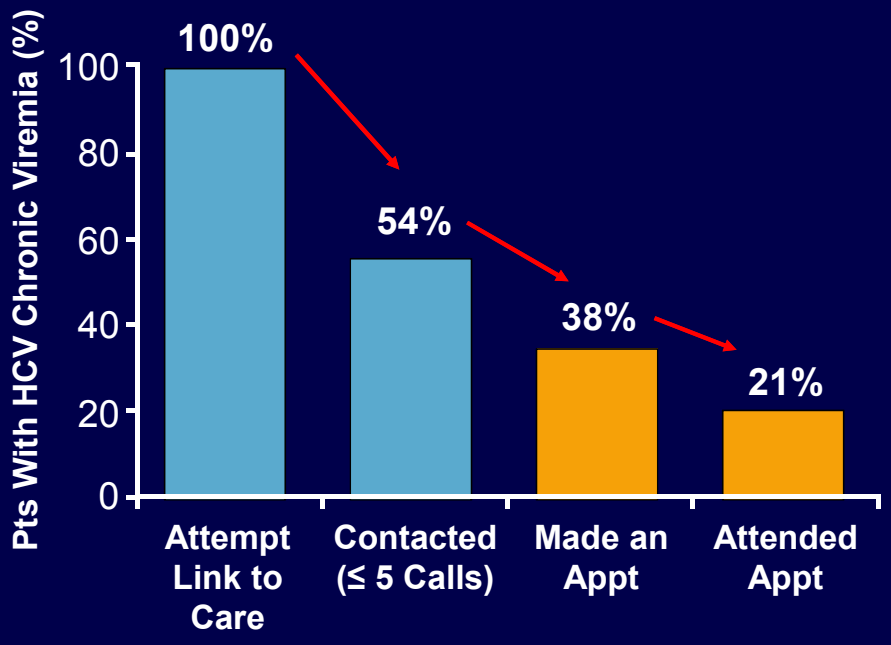
Other Settings: The Emergency Department

2325 boomers tested à 87.3% agreed à 11.1% (170/1529) HCV Ab+!



- Of 170 HCV Ab+ → 150 (88%) RNA tested → 102 (68%) RNA+

Characteristic	HCV-Reactive Pts, n (% of Total Screened)
Pts	170 (11.1)
Sex	
§ Female	57 (7.4)
§ Male	111 (14.7)
Race	
§ Black	104 (13.3)
§ White	63 (8.8)
Insurance	
§ Private	19 (5.0)
§ Public/Medicaid	48 (16.8)
§ Uninsured	55 (16.9)

Galbraith JW, et al. Hepatology. 2015;61:776-782.

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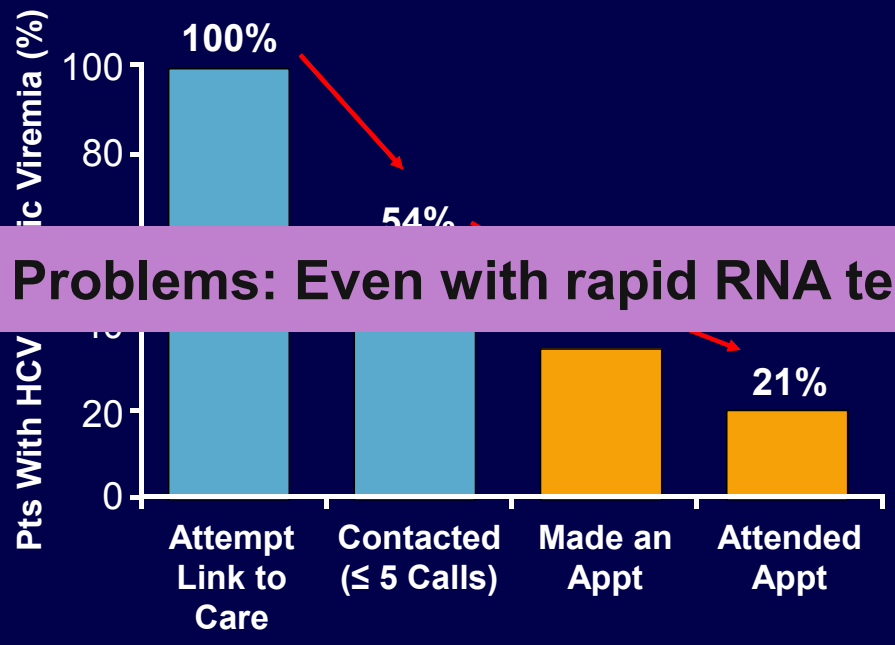

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Problems: Even with rapid RNA testing…follow-up a MAJOR problem

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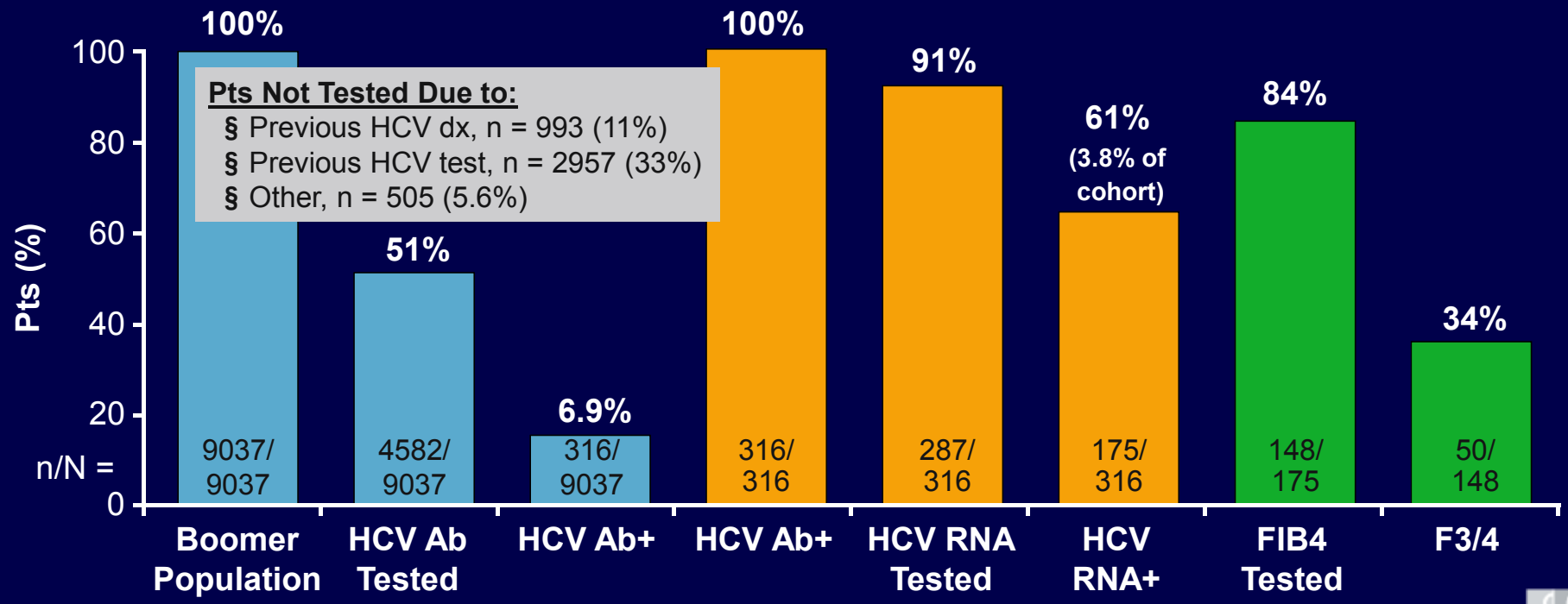
Other Settings: Hospitalized Pts

Safety net hospital—all baby boomers offered testing over 21-mo period



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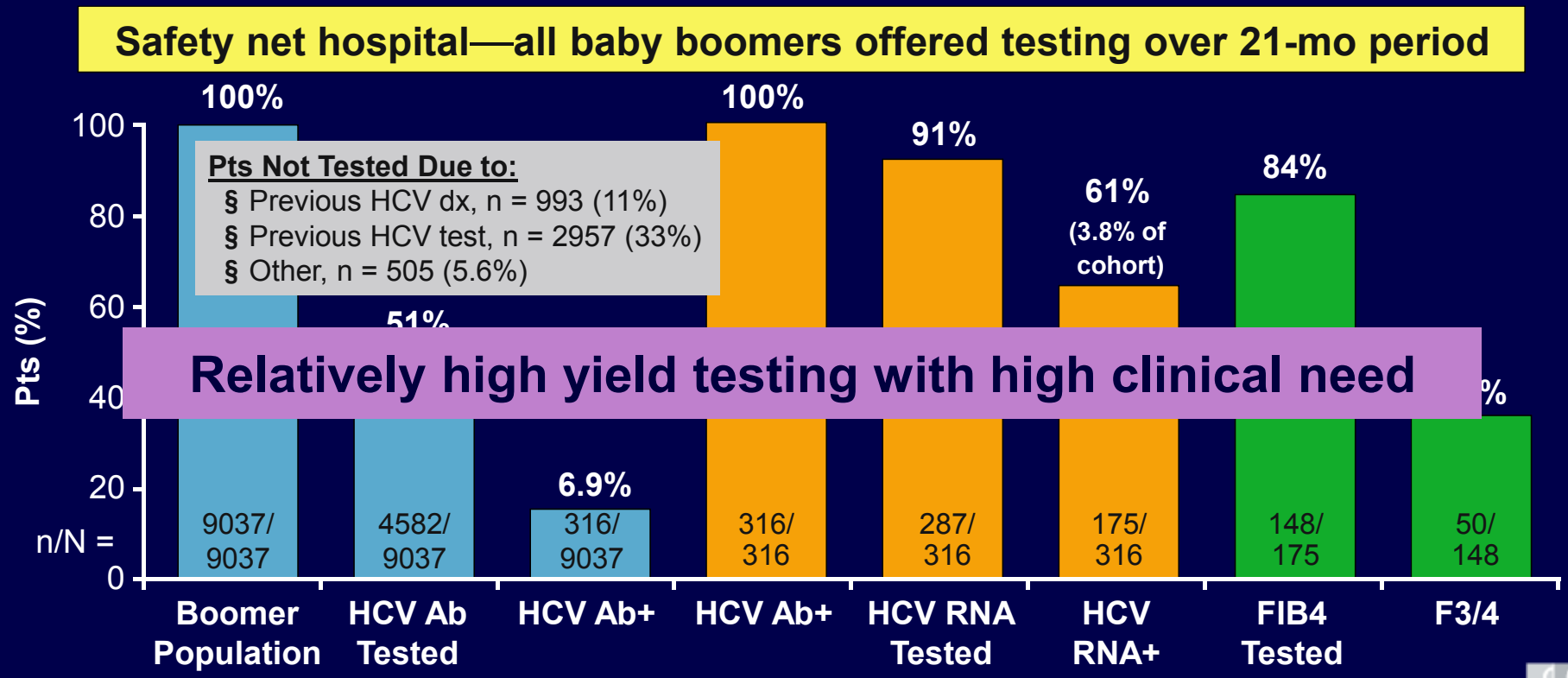

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Slide credit: clinicaloptions.com

Recurrent Themes

- Urban clinics → high yield HCV Ab+
  - Most have identifiable risk factors but not all
- Drop-off for RNA testing
  - Improved with rapid turn-around or in-hospital testing
- ***Major*** *drop-off for linkage to care*
- Treatment access likely an issue for many
- Treatment rates very low

Slide credit: clinicaloptions.com

RDTs vs PoCT

- **Rapid diagnostic test:** rapid but requires special equipment ± trained personnel
  - Antibody (blood, serum, or saliva)
  - RNA (blood, serum)
- **Point-of-care test:** rapid and no special equipment or electricity required, easier to perform, no cold chain required
  - Antibody (blood, saliva)
  - RNA (blood)
- **Dried blood spot test**
  - Pros: no blood draw (screening drives, PWID), peer testing—key in certain populations, easy storage → mail to lab, no need for second visit for confirmatory RNA test
  - Cons: smaller volume, no immediate result—need follow-up

Shivkumar S, et al. Ann Intern Med. 2012;157:558-566. Gupta E, et al. J Clin Virol. 2017;88:46-51. Grebely J, et al. Lancet Gastroenterol Hepatol. 2017;2:514-520. Cloherty G, et al. J Clin Microbiol. 2016;54:265-273. Ross RS, et al. Virol J. 2013;10:72.

Slide credit: clinicaloptions.com

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  - Antibody (blood, saliva)
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Not all tests are created equal!

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Slide credit: clinicaloptions.com

More Difficult Than Screening . . . What to Do With a Positive Test à Linkage to Care!

After a Positive Test

- Preferred option
  - Immediate linkage
  - Screening in a setting where care is provided (OST clinic, PCP)
- Second option
  - Facilitated linkage
  - Peer navigators
- Third option (the most common)
  - Referral to a specialist . . .

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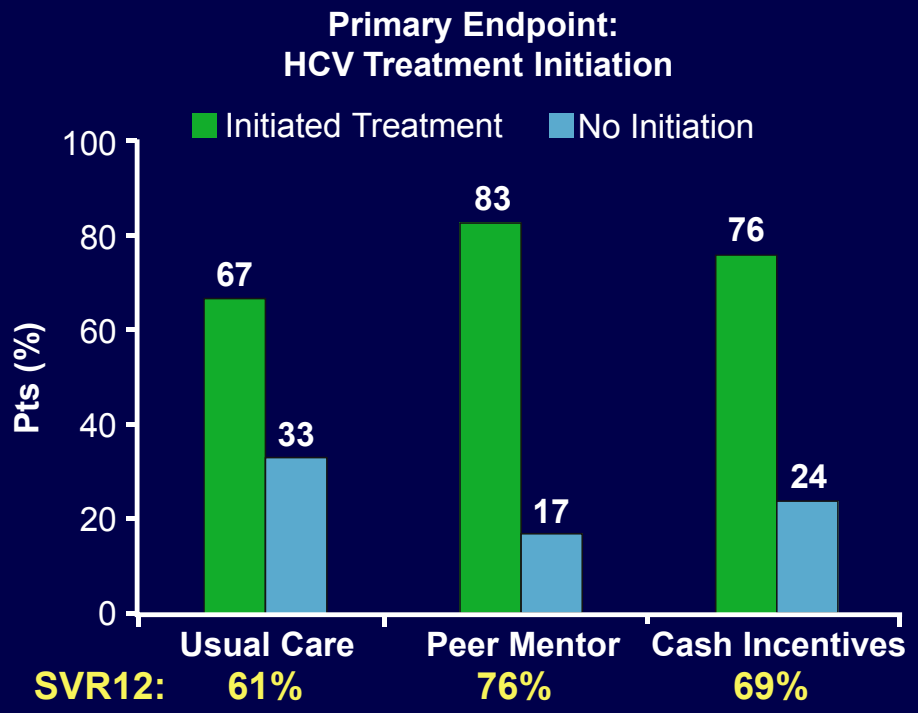
CHAMPS: Impact of Incentives on HCV Treatment Uptake, Cure Among HIV+ PWID

- Novel interventions offered for HIV/HCV GT1-coinfected pts from Johns Hopkins HIV clinic receiving no previous HCV treatment (N = 144)
- Pts randomized 1:2:2 for 8-12 wks of pre-tx intervention followed by 12 wks LDV/SOF
  - **Usual care**: standard HIV care with nursing, pharmacy support, adherence support using Stop Light Protocol
  - **Peer mentor**: Persons with HIV were trained as peer mentors following HCV cure and had in-person contact and dedicated cell phone before, during, after treatment
  - **Cash incentives**: Participants paid on ascending scale contingent on attendance at visits; Max compensation of $220 US
- 61% male, 93% black, 85% unemployed, 46% urine + for cocaine/heroin, 97% on ART

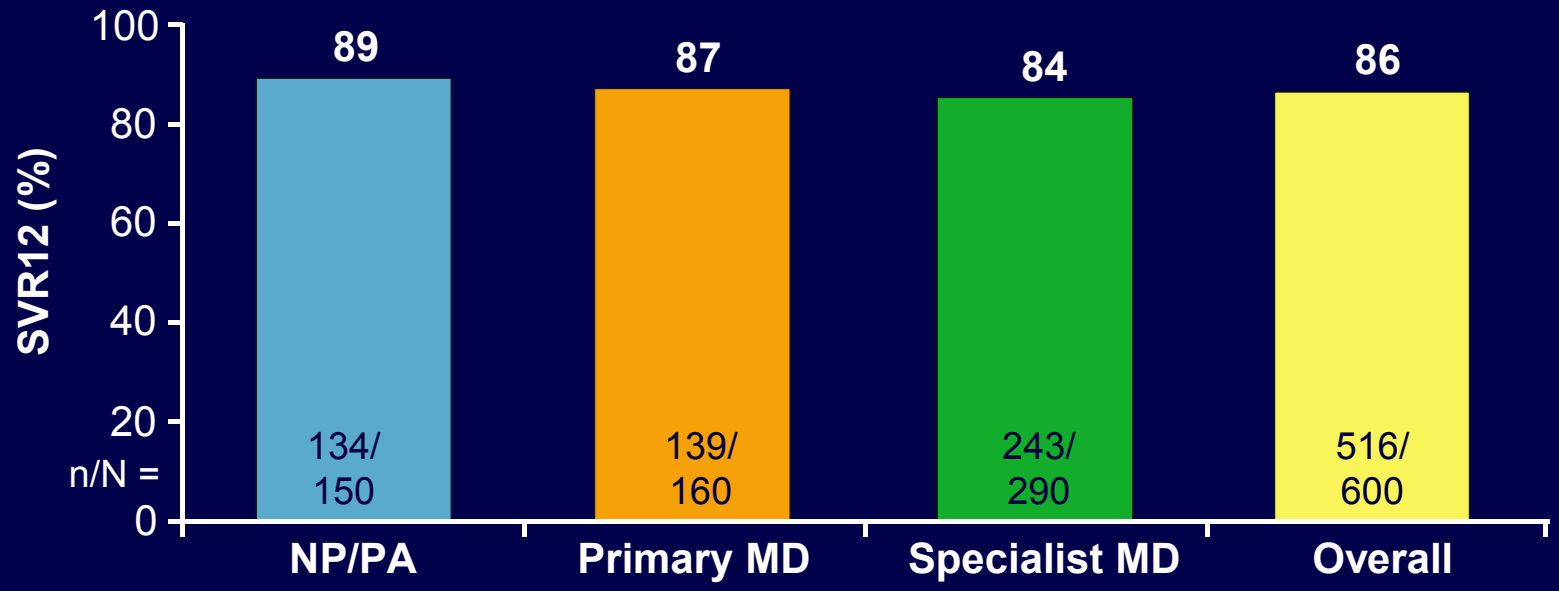


Sulkowski M, et al. AASLD 2017. Abstract 76.

Slide credit: clinicaloptions.com

ASCEND: Nonrandomized Phase IV Trial of HCV Treatment Outcomes by DAA Prescriber Type

- Pts (N = 600) from 13 urban, FQHCs in DC, all treated with LDV/SOF per FDA prescribing info; all providers given 3-hr training in AASLD/IDSA HCV guidance



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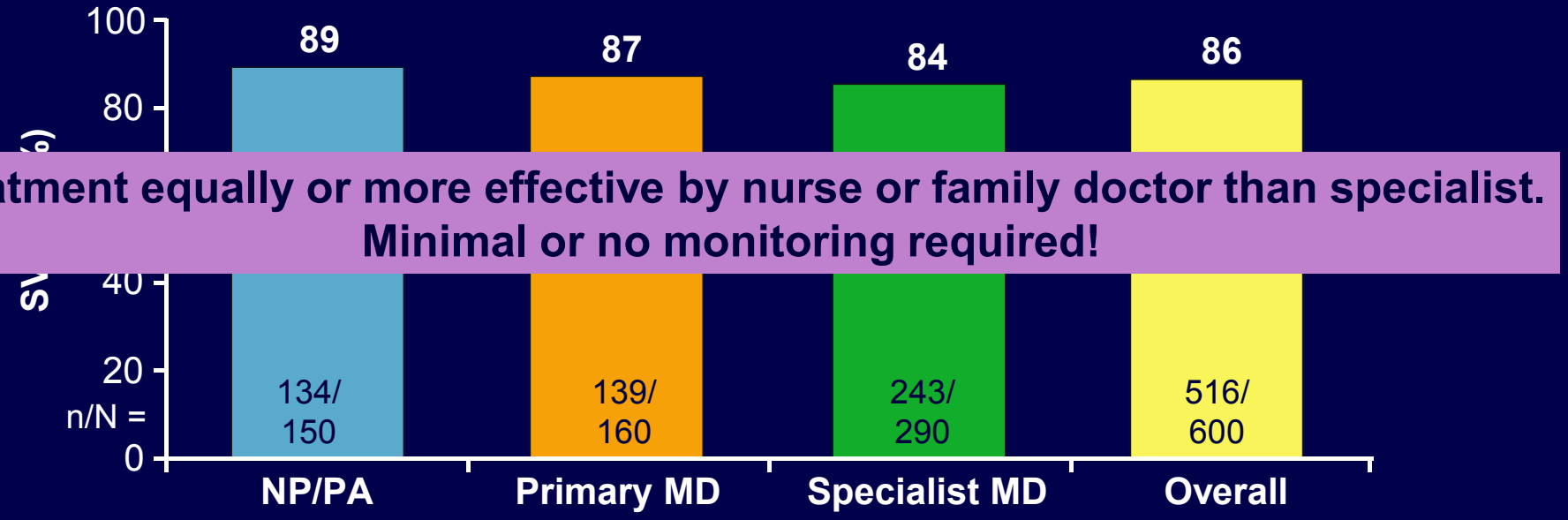
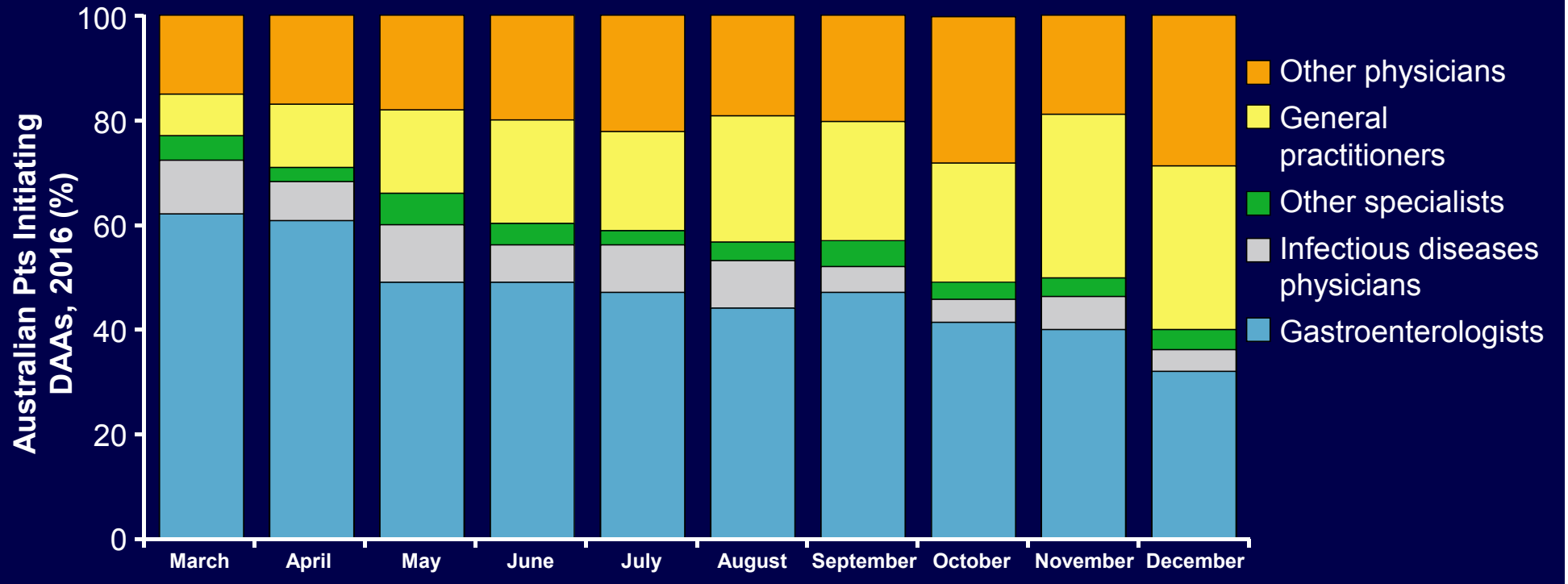


Treatment equally or more effective by nurse or family doctor than specialist. Minimal or no monitoring required!

Kattakuzhy S, et al. Ann Intern Med. 2017;167:311-318.

Slide credit: clinicaloptions.com

Nonspecialists Can Effectively Treat HCV



The Kirby Institute. Monitoring hepatitis C treatment uptake in Australia (Issue 7). Available at: https://kirby.unsw.edu.au/report/monitoring-hepatitis-c-treatment-uptake-australia-issue-7-july-2017.

Slide credit: clinicaloptions.com

Project ECHO: A Key to Linkage to Care

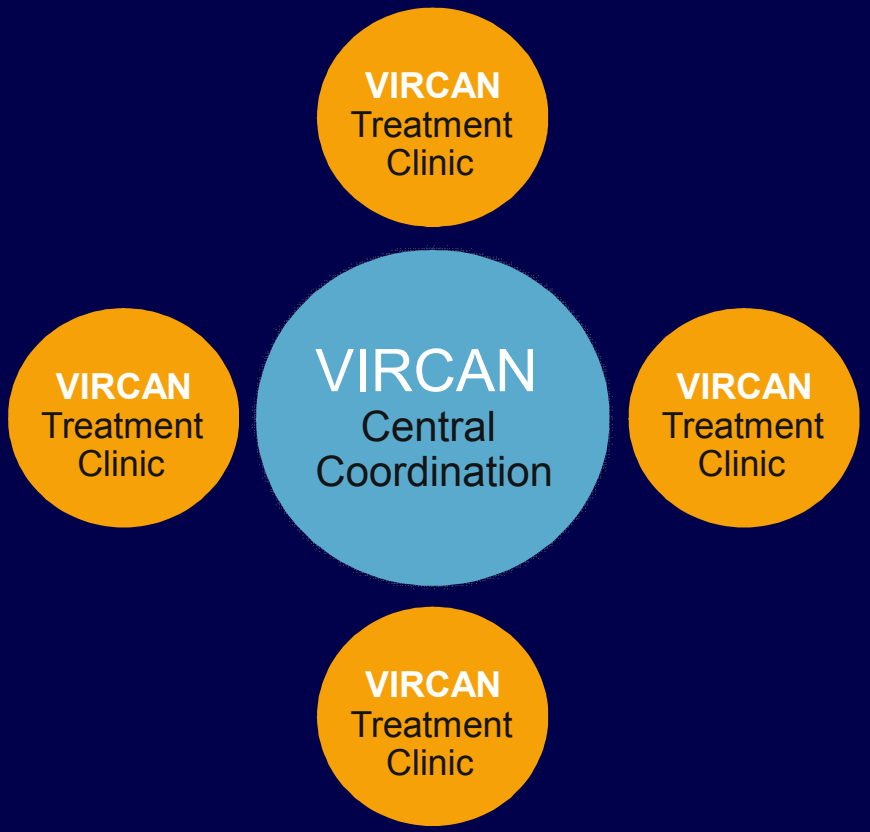
- Linking PCPs to specialists
- Program is expanding rapidly
- Expert care does not require MD
- Enables new treaters
- Knowledge translation
- Facilitates linkage to care
- Allows people to be treated by people and in settings they know and trust

Many HCV treatment support options available

Arora S, et al. N Engl J Med. 2011;364:2199-2207.

Slide credit: clinicaloptions.com

Viral Hepatitis Care Network (VIRCAN)



- Uses a **"hub and spoke"** model to diagnose and treat pts **"where they are"**
- Local screening and local treatment
- PoC Ab test with reflex RNA (DBS)
- Linkage to care simultaneous with screening—pts seen at time of Ab+
  - In ED/walk-in clinic
  - In addiction center
  - In community health center

Slide credit: clinicaloptions.com

Coupling HCV Screening With Addiction Services

- **Addiction services**
  - Needle syringe program
  - Opioid substitution therapy
  - Harm reduction outreach
  - Supportive housing
  - Daily drop-in center
- **VIRCAN HCV Program**
  - Peer counselors but ***no trained medical staff***
  - Peer HCV screening and counseling using PoC or DBS

Slide credit: clinicaloptions.com

Geography Can Be a Major Challenge

- High burden of HCV in Canadian First Nations/aboriginal population
  - Remote communities → no road access
  - Very limited resources
- HCV screening
  - Community leaders (chief and council) support
  - Peer screeners → dried blood spot screening
  - Peer and RN counseling
- Linkage to care
  - Local MD/RN—treatment by ECHO model
  - OST clinics
- 2 yrs of planning; finally paying dividends

Uhanova J, et al. Can J Gastroenterol. 2013;27:336-340.

Role of the PCP

- **Screening! Screening! Screening!**
- Treatment or linkage to care
  - Not all will treat, but for those who do, it eliminates loss between positive screening test and linkage to care
  - Have to have an interest—addiction specialists/OST, inner city, prison, immigrant population, rural (?)
  - Need some training/mentoring
  - If not treating, must establish strong system for efficient linkage to specialist
- Follow-up
  - Post SVR—monitor for reinfection (if needed)
  - HCC surveillance

Slide credit: clinicaloptions.com

Role of Specialist (ID/GI)

- **Champion HCV elimination!**
- Education
  - CME for PCPs and luminal GI
  - Preceptorships
- Mentoring
  - Project ECHO
  - Telementoring
- Develop screening programs
  - ED, inpatient, other settings

Slide credit: clinicaloptions.com