

Screening for Acute Hepatitis C in MA state prisons

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Acute Hepatitis C

What's the big deal?

- **Shorter duration of treatment** (24 wks vs. 48 wks)
 - Shorter period of side effects for the patient
 - Treatment-associated cost decreased
- **Superior treatment outcomes**
 - Sustained virologic response rates are much higher than chronic infection
- **Biology of hepatitis C**
 - There is no HCV vaccine
 - Understanding the correlates of immunity
 - High levels of immune responses in acute infection

CDC Mandate

- CDC: *Primary and secondary HCV prevention efforts should be targeted in the correctional system.*

...but are these efforts feasible?

...will they be accepted by patients?

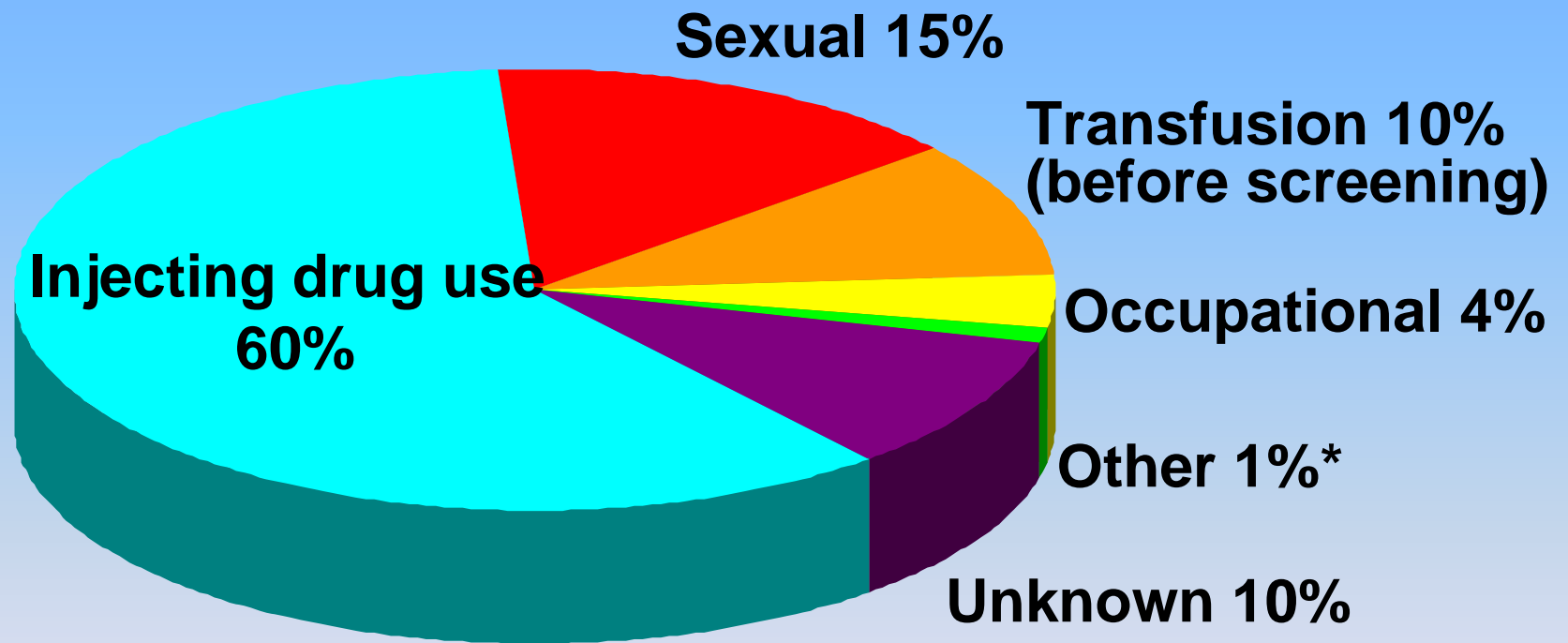
... will they be effective?

MMWR 2003;52(RR-1):24-25.

Why the incarcerated population? (1)

- Many inmates have a history of new onset IDU
 - 57% reported using illicit drugs in month before their offense

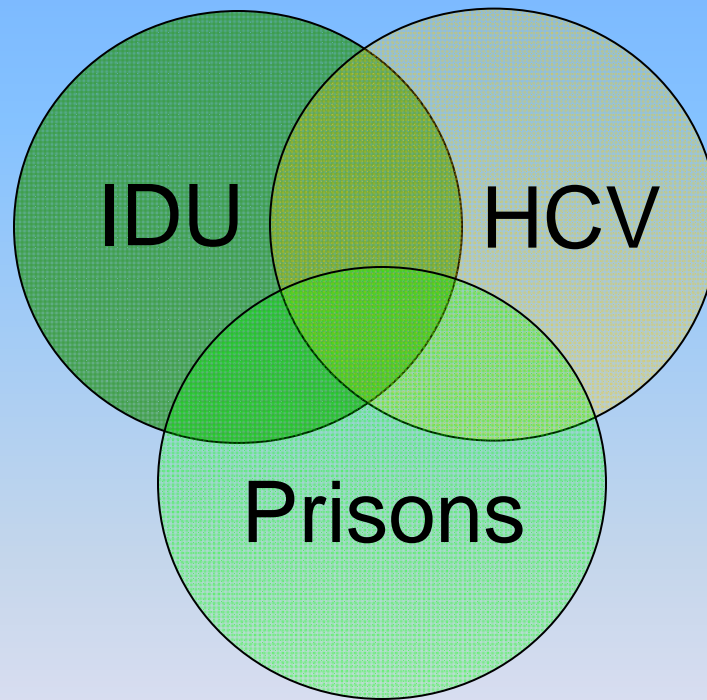
Sources of Infection for persons with hepatitis C



* Nosocomial; iatrogenic; perinatal



The Perfect Mix

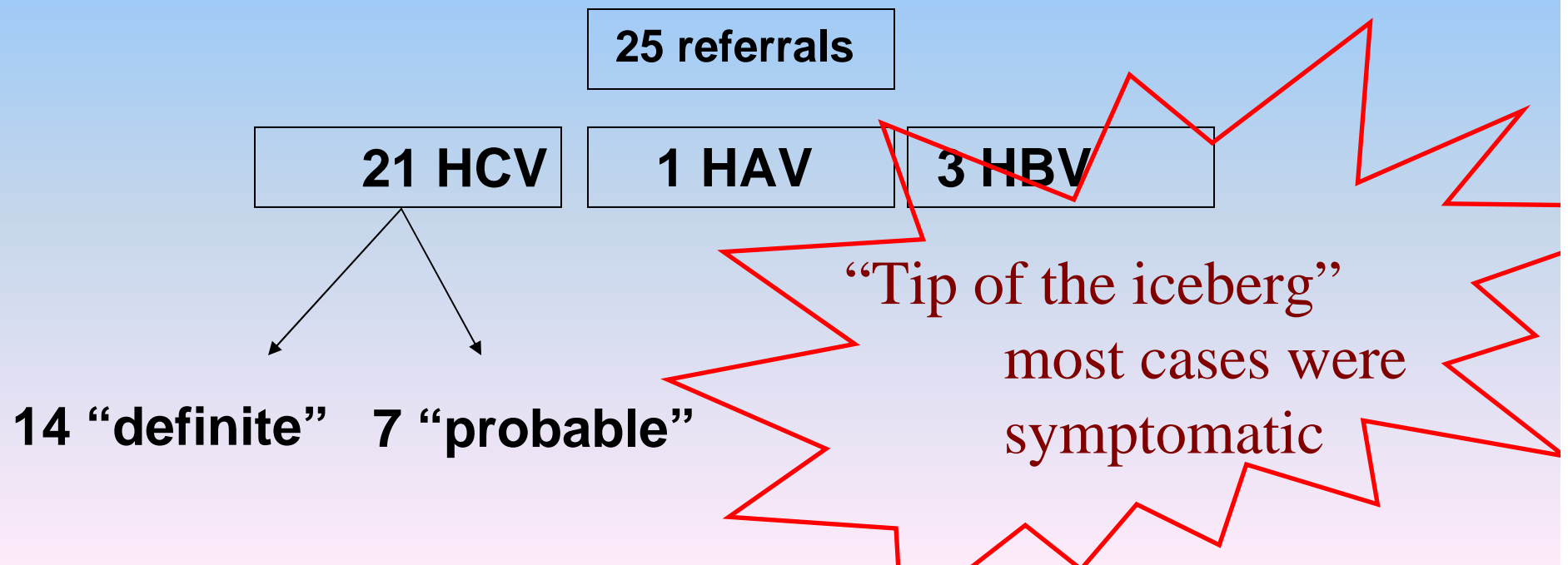


Pilot Project – 2001 to 2004

Acute Hepatitis C Virus Infection in Incarcerated Injection Drug Users

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Systematic Identification

Does a systematic screening approach enhance identification of acute HCV among persons entering the MA state prisons?

Selection of Sites



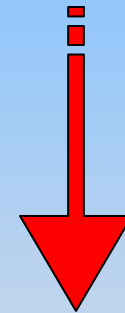
Screening Form

- Purpose:
 - to identify individuals with recent onset of high-risk injection drug use or recent Got feedback on form, best place to fill out form
- Design:
 - 12 questions
- ~ one minute to complete
- Evolution:
 - Pilot tested, but still required changes
- Race/Ethnicity

UMass Correctional Health

- Provider involvement is essential
- Provider lunches onsite
 - Education on acute HCV
 - Treatment outcomes
 - Research goals and rationale

Intake Sites



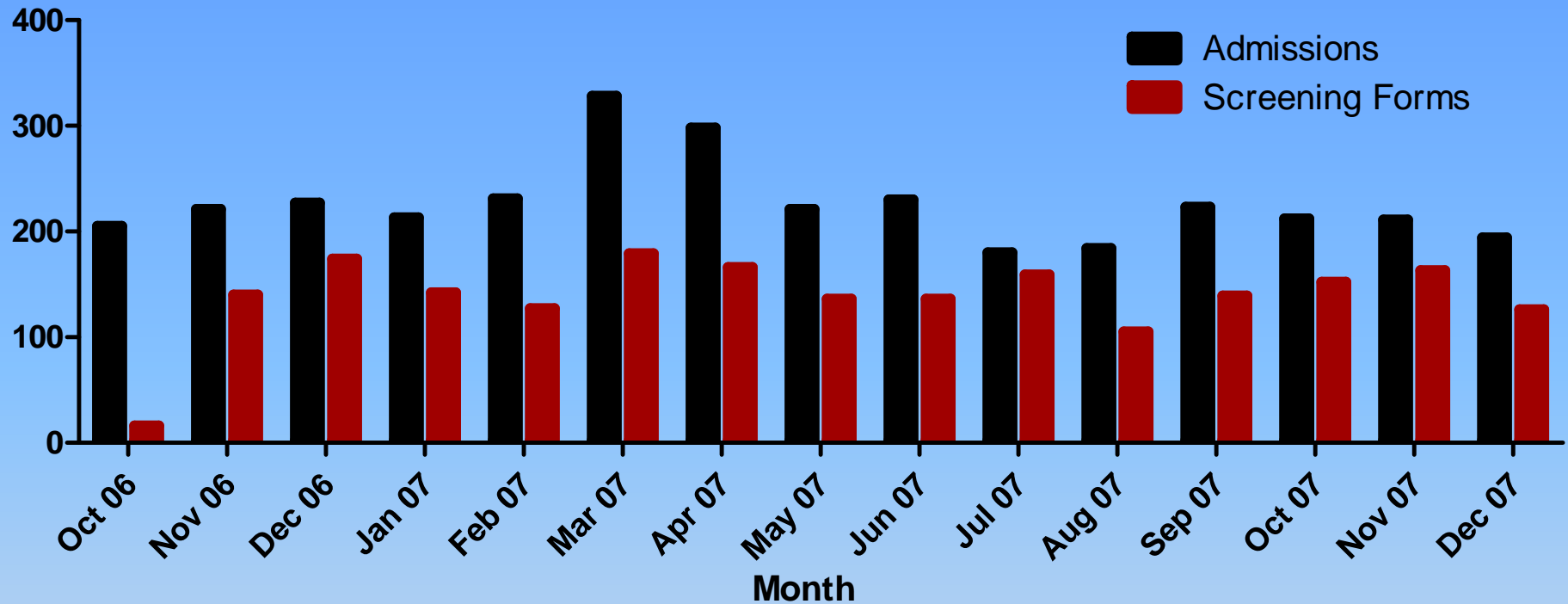
Physical Appt

Early Intervention

Questions for Provider:		
11. Was educational sheet on hepatitis C given?	Yes	No
12. If High-Risk, was HCV Ab and ALT/AST ordered?	Yes	No
Please place above sheet in HCV Research Bin. Thank you.		
Date: _____	Medical Provider _____ (LPN, RN, NP, PA, MD) PLEASE PRINT	

- Acute phase of HCV infection is relatively small
- Onset of risk \dashrightarrow Enrollment
 - Arrest \dashrightarrow county jail \dashrightarrow intake \dashrightarrow physical
 - Six to nine months
- Acute vs. Early

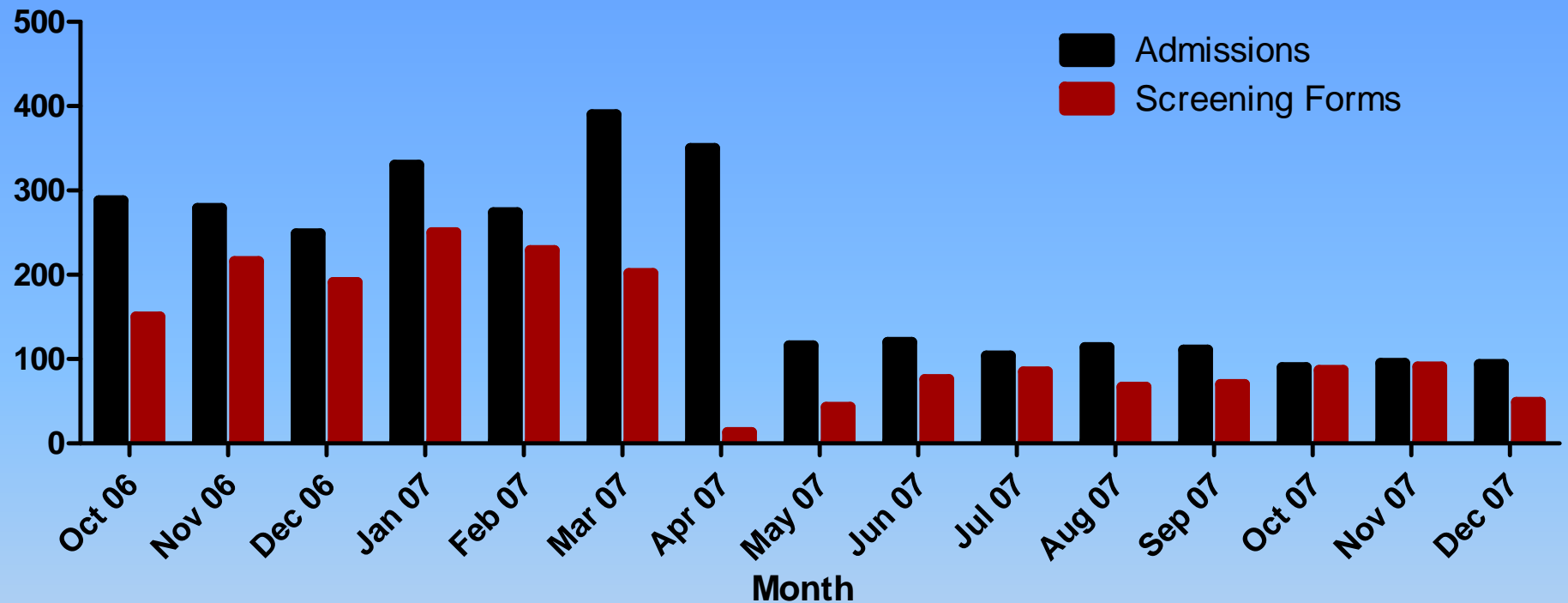
Concord Screening Forms by Month



- On average,
 - 211 admissions/month
 - 140 screening forms/month

Prison	MCI-Framingham					MCI-Concord				
# of Inmates Screened	1878					2101				
Classification	Low-risk 28.2%	Chronic 27.9%	Not Filled Out 40.7%	Refused 0.0%	High-risk 3.1%	Low-risk 79.2%	Chronic 14.3%	Not Filled Out 3.0%	Refused 0.7%	High-risk 2.0%
# of Total Admissions	3004					3167				
% Screened	62.50%					66.30%				

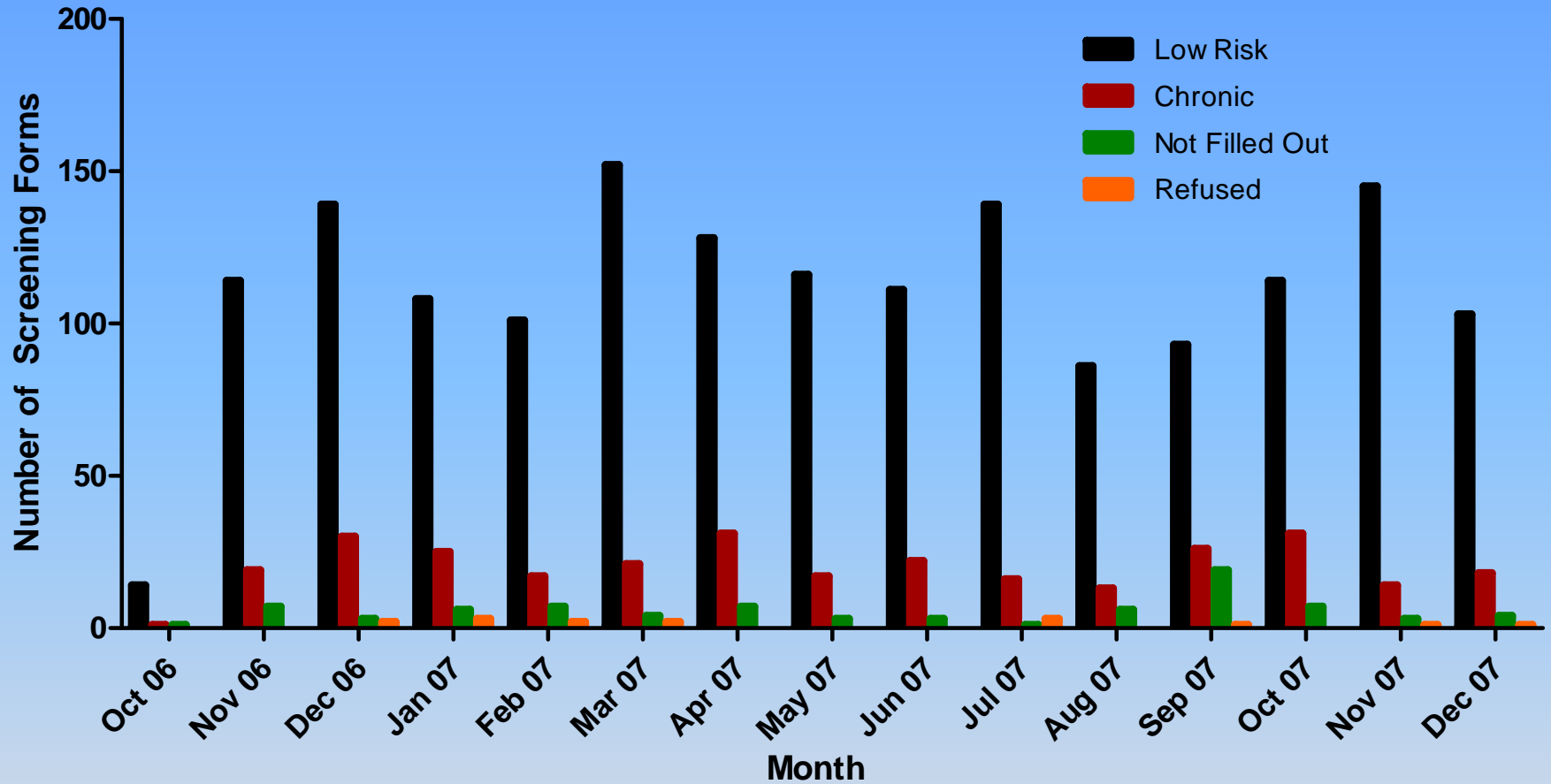
Framingham Screening Forms by Month



- On average,
 - 200 admissions/month
 - 125 screening forms/month

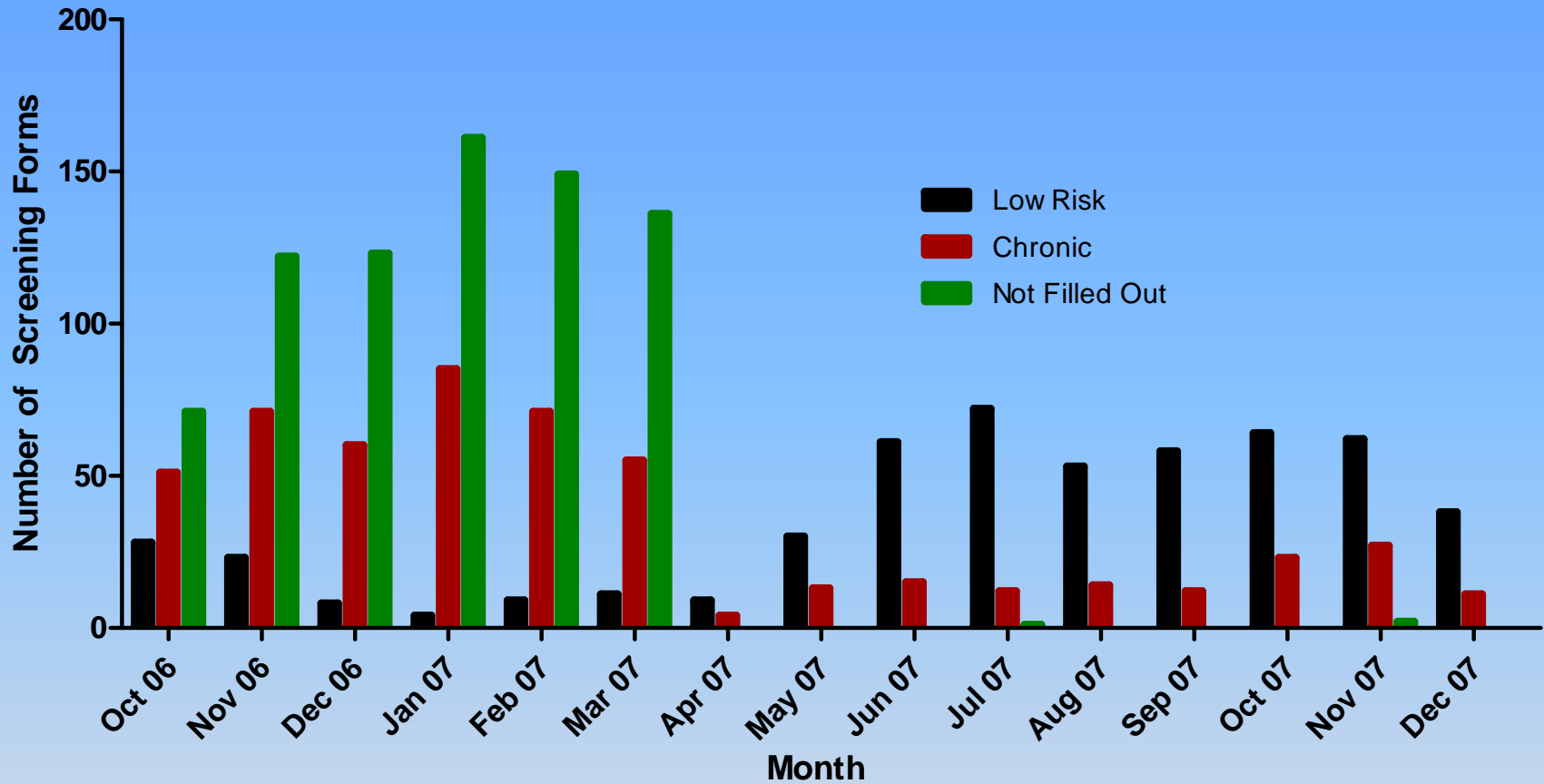
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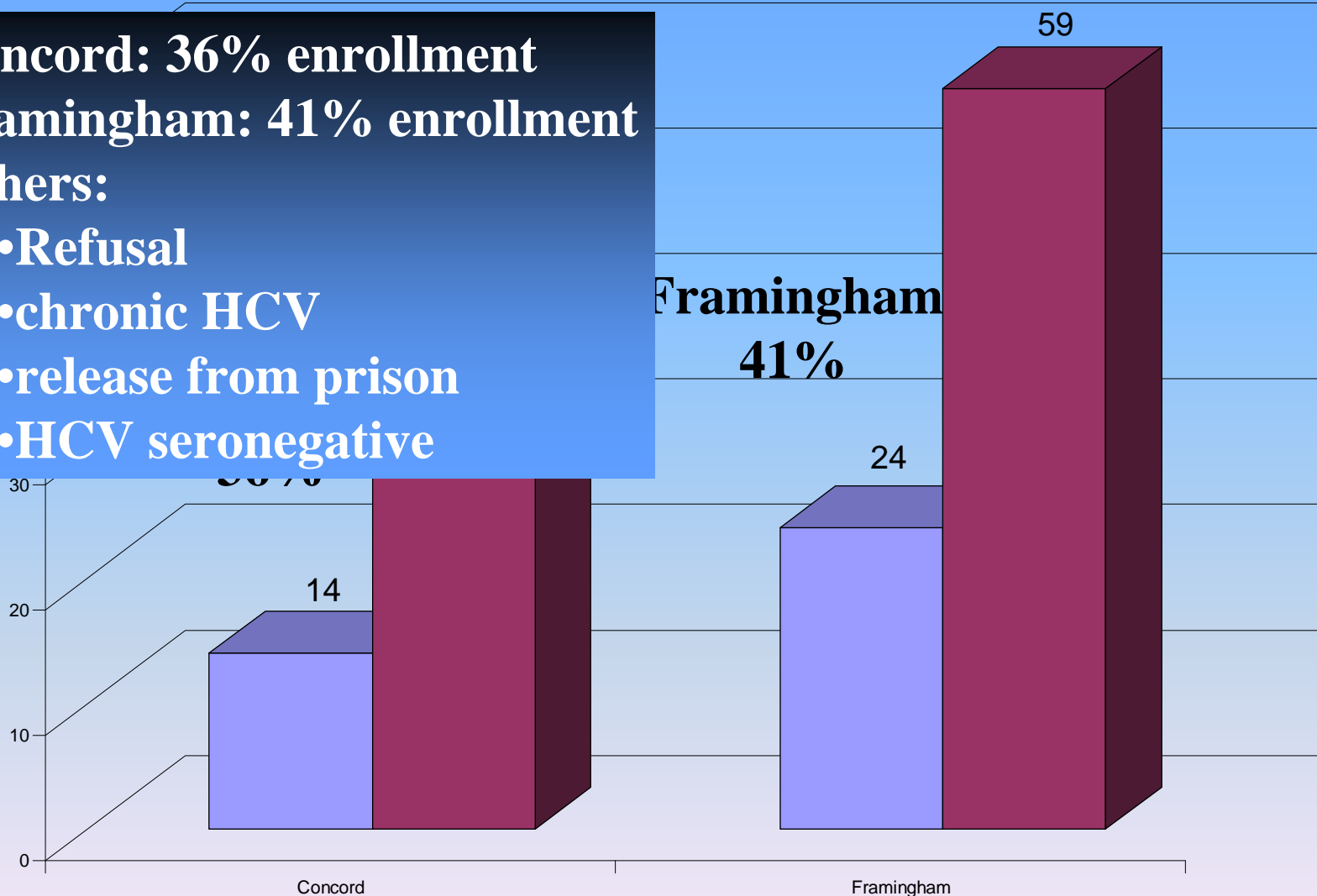
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Enrollment of High-Risk Candidates

- Concord: 36% enrollment
- Framingham: 41% enrollment
- Others:
 - Refusal
 - chronic HCV
 - release from prison
 - HCV seronegative



Systematic Screening Results

	2001-2004	2006-2007
Number of Acute HCV Cases	21	39
Number Cases/Month	0.7	2.6
Numer of Asymptomatic Cases*	7 (33%)	23 (59%)
Number of Cases with Normal Baseline LFTs	0	3
Loss to follow-up	4	3
Spontaneous clearance (%)	8/17 (47%)	10/39 (26%)
Number of Patients on Treatment	5	17

Other Opportunities: Prevention/Education Strategies

- HIV testing
 - All but 2 patients were tested for HIV
 - Two patients had AIDS
- Serologies
 - All patients had hepatitis serologies
- Immunizations
 - All but two patients received vaccinations, if needed
- Sharing paraphernalia
- Harm reduction

Conclusions

- Brief screening questionnaire for high-risk IDU is feasible in a prison healthcare setting
- Targeted screening of high risk individuals results in enhanced case-finding of acute/early HCV
 - Shift towards less symptomatic disease
 - Raises awareness of medical staff
 - Scratching the surface
- Opportunities for immunization, education, harm reduction

“Room for improvement”

- Increase the percentage of screening forms being filled out
- Decrease delay in antibody testing and enrollment
- Better follow up in the community

Acknowledgements

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- Sarah Maria-IDCM

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- Dr. David Stone