

# Integrating Surveillance - Essential Constituent for HIV/AIDS, Viral Hepatitis, and STDs Control and Prevention

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# What is Integrated Surveillance ?

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Surveillance that identifies persons with infections / diseases / conditions that often have overlapping risk factors, to achieve better public health interventions

# Parenterally transmitted diseases prevention problems in Central Asia 1

## production, dissemination and consumption of illicit drugs



**Khanka**



**Heroin**

**Khanka**



**Heroin**



**CDC**

CENTERS FOR DISEASE CONTROL AND PREVENTION

# Parenterally transmitted diseases prevention problems 2



# Reasons to Combine Viral Hepatitis, HIV/AIDS and STD Prevention

# 1. Viral Hepatitis, HIV/AIDS and STD – Major public health problems

# Disease Burden from Bloodborne Viral Infections and TB in CAR

Последствия	HBV/HDV	HCV	HIV	TB
Chronic Infections	5 (million)	2.5 (million)	0.03-0.05 (million)	1.5 (million)
New infections /yr	500,000	50,000	7,000	500 000
Deaths /yr	11,000	3,000	100 ?	10,000

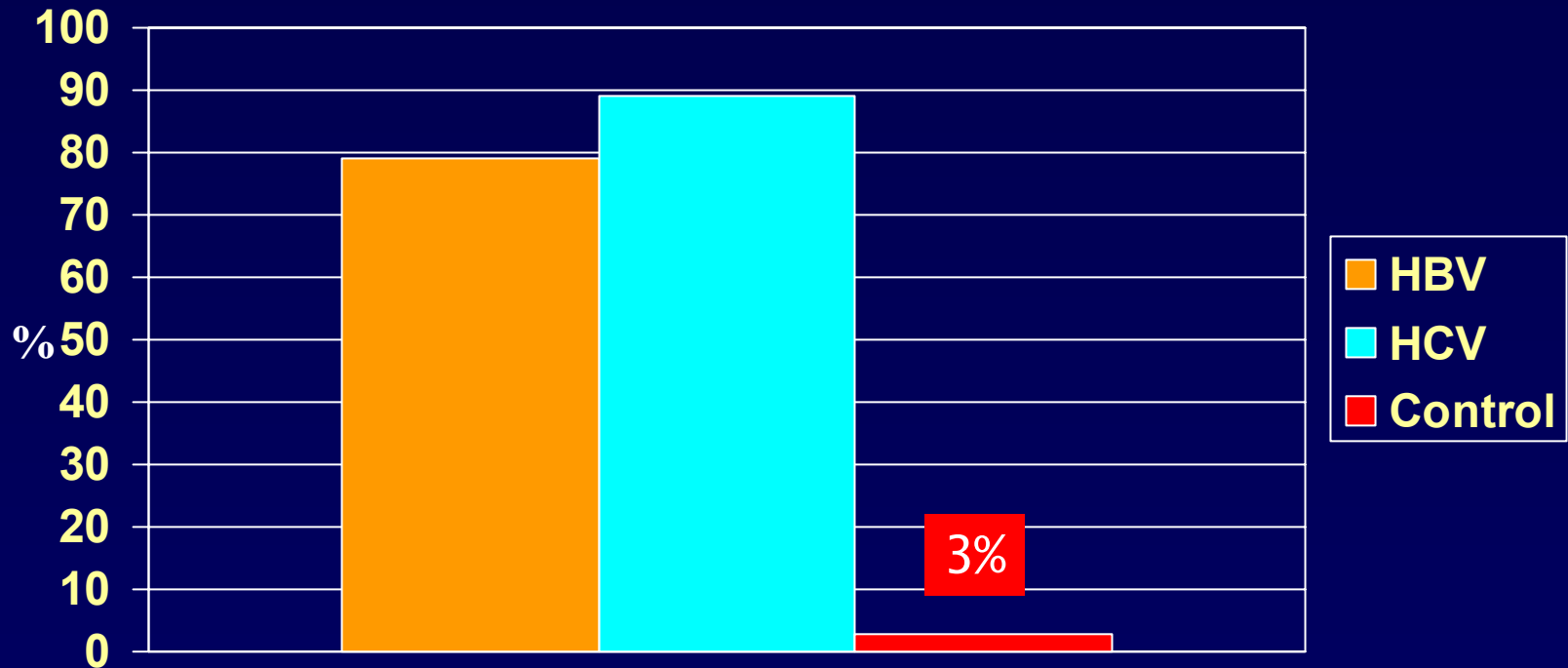
## 2. Routes of Transmission and Opportunities for Prevention of Infection with Hepatitis Viruses and HIV Overlap Substantially



# Risk Factors for Transmission of Hepatitis Viruses and HIV in the US

Risk Factor	Proportion of Infections (%)		
	HBV	HCV	HIV
Injection drug use	14	60	31
MSM	15	1	47
Heterosexual partners	40	20	10
Transfusion	Rare	Past 7- 20	Past 2
Occupational	5-7 (past)	<<1	<<1
Unknown	30	10	9

# History of injection drug use among VH patients, Moscow, Russia, 1998



$P < 0.001$

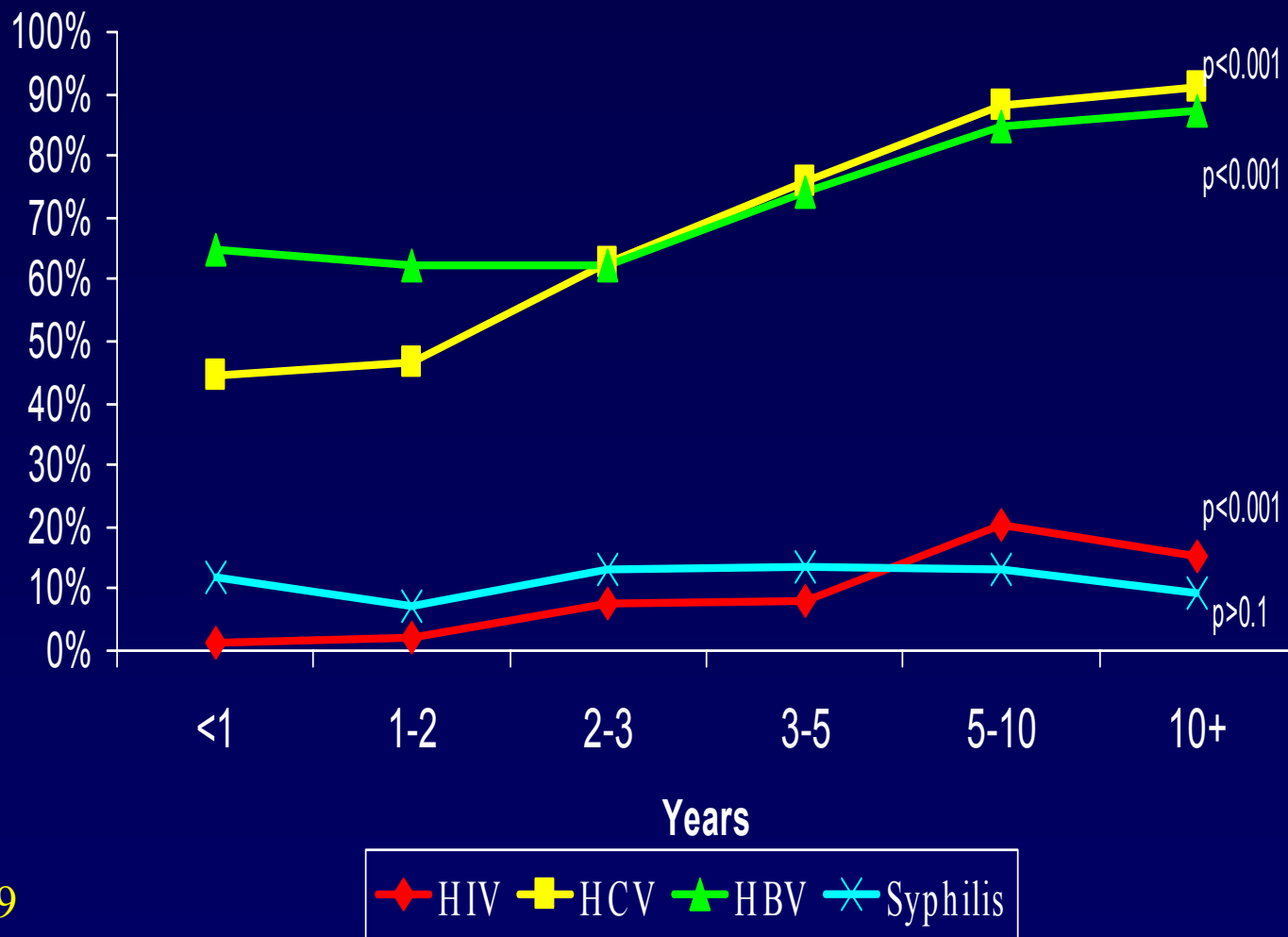
N=611

# HIV, STI, and HCV among IDUs in Karaganda Obl., Kazakhstan, 2002

Sites	HIV (anti-HIV + EIA+IB)	Acute syphilis (VDRL +; TPPA +)	Chronic syphilis (VDRL -; TPPA +)	Other STI (symptoms and sign)	HCV (two + by consecutive tests; Abbott)
Diseases Temirtau	222\899 25%	103\899 11.5%	50\899 5.6%	52\899 5.8%	576\646 89.2%
Karaganda City	21\890 2.4%	116\890 13.0	57\890 6.4%	58\890 6.5%	442\605 73.1%

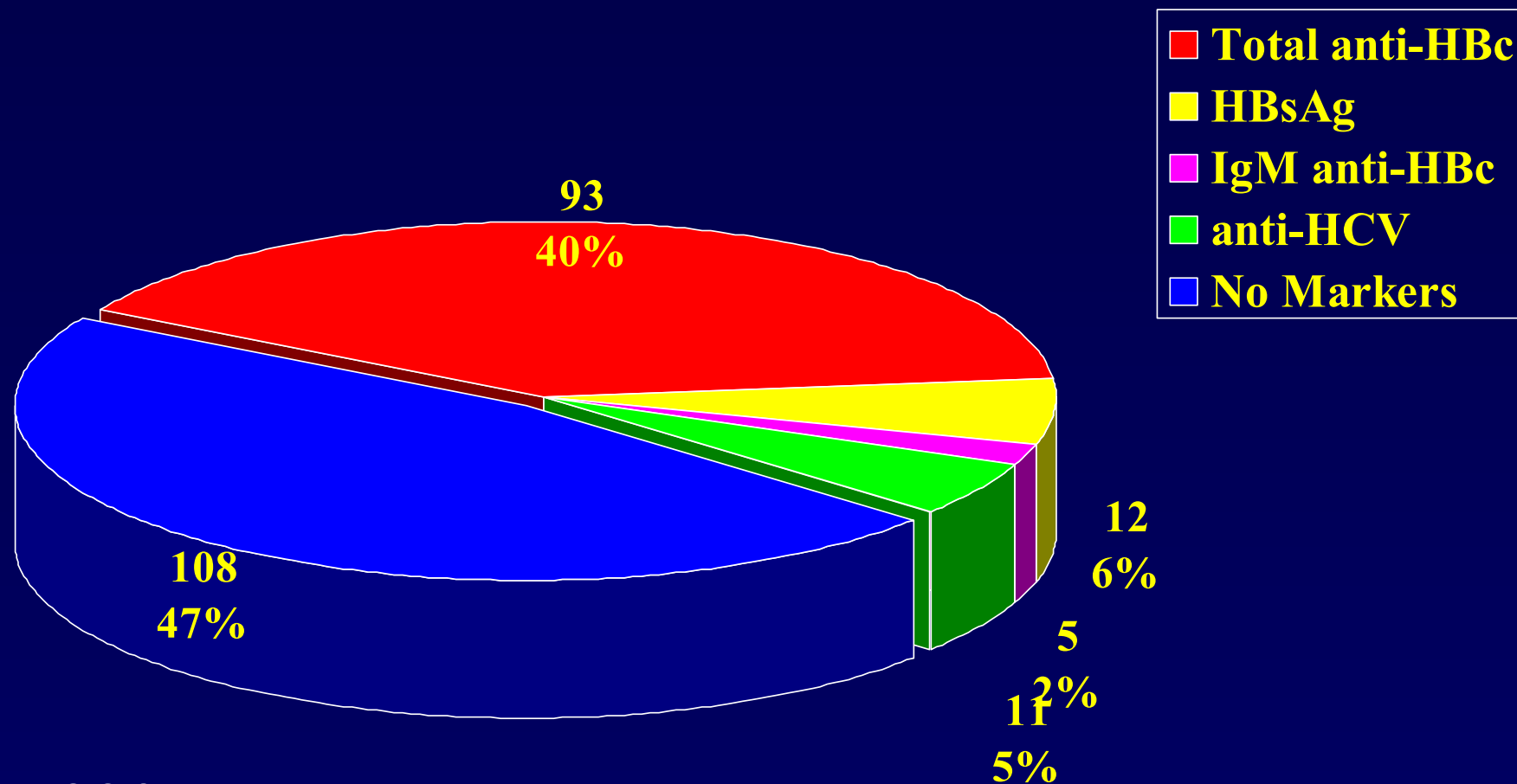
**3. Lack of Integrated  
Prevention Activities  
Contribute to Ongoing  
Transmission of HIV, Viral  
Hepatitis and STI**

# HIV, HCV, HBV, and Syphilis among IDUs by lengths of drug use, Kazakhstan, 2002



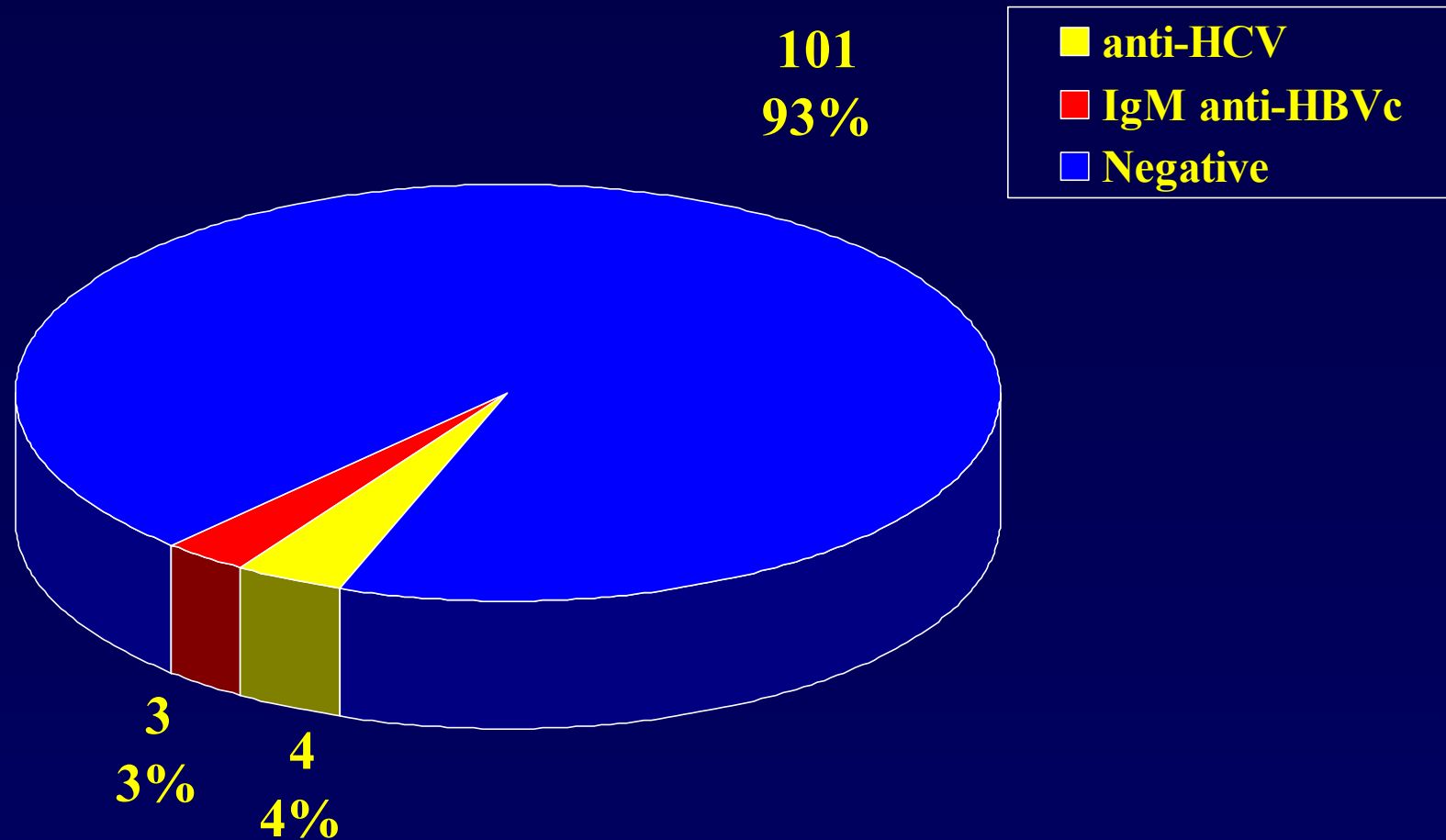
N = 1799

# HBV, HCV infections markers among new TB patients, Kazakhstan, 2002



n=229

# HBV, HCV infections among TB patients 3 month after hospitalization, Kazakhstan, 2002



Annual Risk of infection = 0.25

n=108

# HBV, HCV Risk factors among TB hospital patients, Kazakhstan, 2002

Risk factors	No	Infected	Not Infected	RR	95% CI	P* <
> 100 injections	44	2 (5%)	42	0.6	0.12 –2.9	0.7
< 100 injections	64	5 (8%)	59			
Broncho-Fibro Scope				4.4	1.1-18.5	0.05
Yes	24	4 (17%)	21			
No	83	3 (4%)	80			
Pleura Puncture				5.5	1.3-22.8	0.03
Yes	21	4 (19%)	17			
No	87	3 (3%)	84			

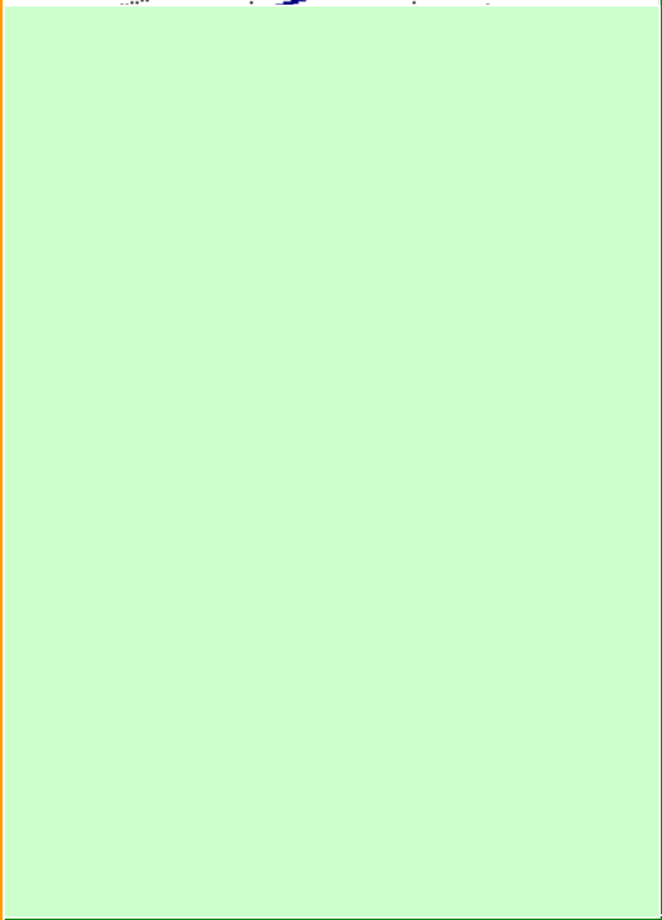
\* - Two Tail Fisher Exact Test





4. Lack of national programs for integrated prevention activities leads to transmission of viral hepatitis, HIV/AIDS and STD

# Ministry of Health organizational chard



# Challenges

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- Funding and/or referral sources for: vaccines, lab tests, medical care
- Incorporation of viral hepatitis prevention messages into “client-centered” counseling
- Staff of other programs (HIV/AIDS, STD, drug treatment, corrections) may not see viral hepatitis prevention as part of their job
- Funding of prevention services flows through separate programs (hepatitis, HIV/AIDS, STD, immunization, corrections)

# Implementation of integrated sentinel surveillance for HIV, HCV and Syphilis in Central Asia Region

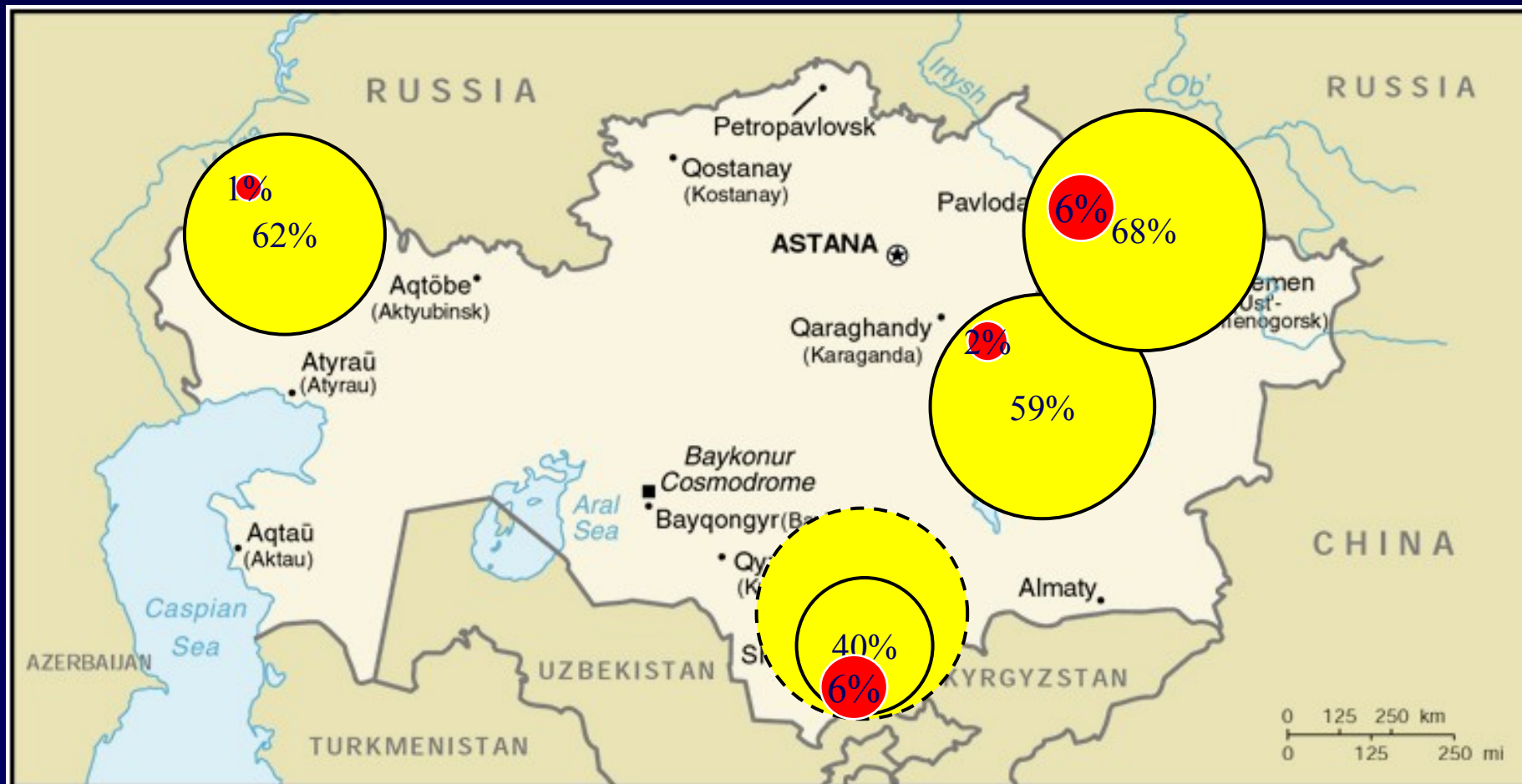


# First round data of sentinel integrated surveillance program implementation

(linked anonymous surveillance)

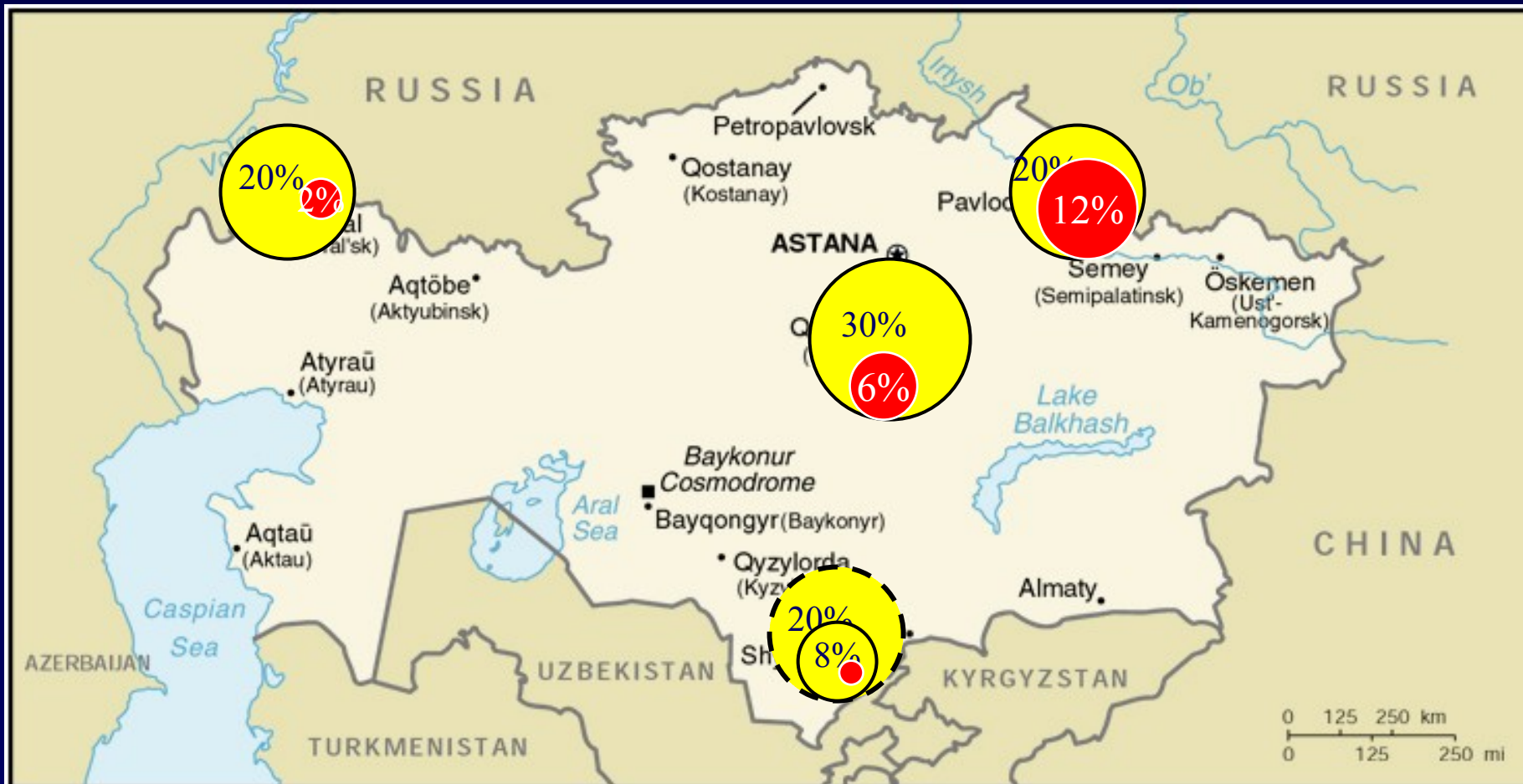
- **Injection drug users (N= 1040)**
    - Snow ball methodology with initial recruitment through narcology clinics
  - **Sex workers through street networks (N= 535)**
    - Cluster recruitment in the points where SW seeking for clients
  - **Prisoners (N= 1540)**
    - Random sampling based the prisoners list
  - **MSM – (N=100)**
    - Volunteers recruited through NGO
  - **Pregnant-(N=2170); STI patient – (N=1569)**
    - All people seeking for medical help at neonatal and STI clinics
- Total N=6954**

# Anti-HCV and anti-HIV among IDUs in Kazakhstan, 2003





# Anti-HIV, anti-HCV among SWs in Kazakhstan, 2003



# Regional sentinel integrated surveillance program implementation components:

- Mutual trust
- multi-purpose training programs
  - Policy implementation and modification (Prikazi)
  - Comprehensive laboratory training
  - Epidemiology training for HIV centers, SES system, MoH employers
  - Apply Epidemiology Training Program (two years CDC-EIS type course in the region)
  - Internet, Epi-Info, General computer use training for all specialists involved
  - Training and technical support of bulletin on Infection Diseases publishing for CAR countries
  - Ethical training, country ethical committee established

Integrating prevention  
services for viral hepatitis,  
HIV/AIDS, STDs and  
drug abuse is  
**GOOD PUBLIC HEALTH**

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