# Integrated HIV, TB and Viral Hepatitis Services: PWID

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# People who inject drugs (PWID)

- PWID are at increased risk of TB, irrespective of their HIV status
- TB is a leading cause of HIV-related mortality among PWID
- PWID are disproportionately affected by HIV, hepatitis B and hepatitis C

**WHO, Joint United Nations Programme on HIV/AIDS (UNAIDS) and United Nations Office on Drugs and Crime (UNODC)**

- Prevention, diagnosis and treatment of TB, HIV and viral hepatitis: Comprehensive package of harm reduction measures for PWID
  - Package efficacious and cost effective in reducing the harms associated with injecting drug use
  - ***PWID access to recommended package of services remains inadequate***

Int J Drug Policy 2007;18(4):306; Curr Opin HIV AIDS 2012;7(4):345; Bull World Health Organ 2013;91:154; WHO Integrating collaborative TB and HIV services within a comprehensive package of care for PWID: Consolidated Guidelines 2016

# Comprehensive package of harm reduction: PWID

## Nine evidence-based interventions

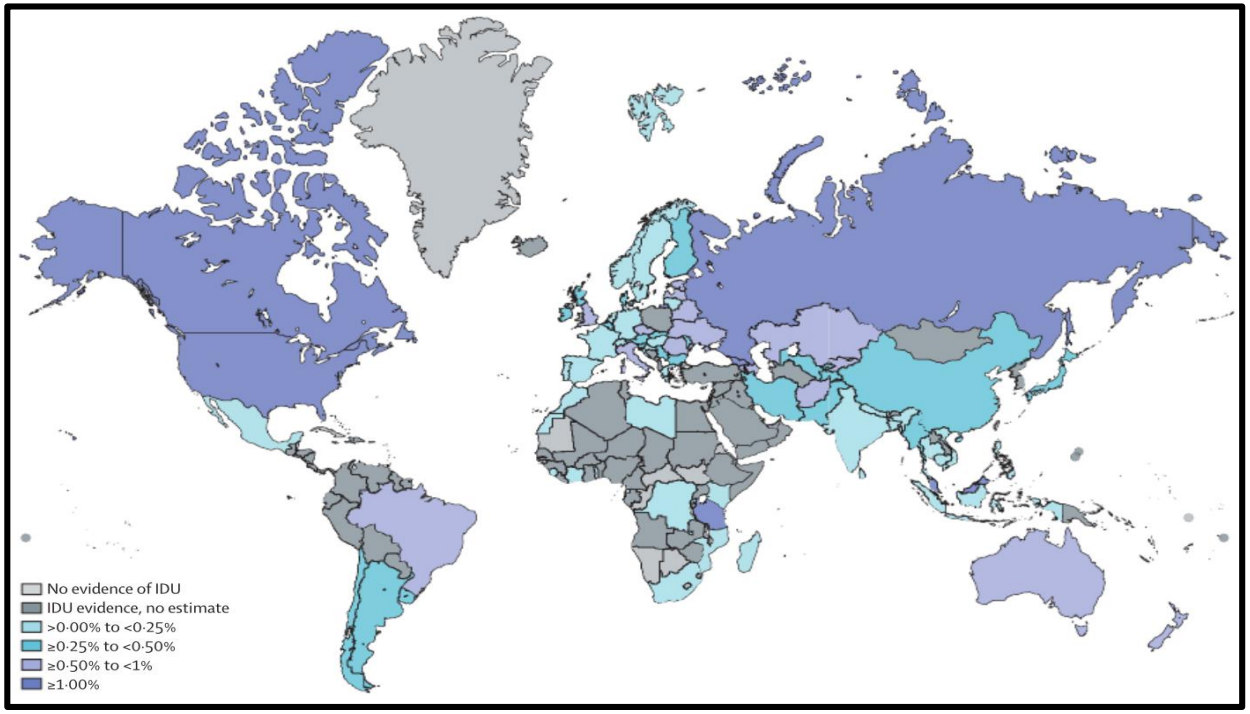
- Needle and syringe programmes
- Opioid substitution therapy, other evidence-based drug dependence treatment, and naloxone for opioid overdose
- HIV testing services
- Antiretroviral therapy
- Prevention and treatment of sexually transmitted infections
- Condom programmes for PWID and their sexual partners
- Targeted information, education and communication for PWID and their sexual partners
- Prevention, vaccination, diagnosis and treatment for viral hepatitis
- Prevention, diagnosis and treatment of TB

WHO Integrating collaborative TB and HIV services within a comprehensive package of care for PWID: Consolidated Guidelines 2016

# Viral Hepatitis & People who inject Drugs (PWID)

**Globally: 15.6 M (95% UI 10.2-23.7) PWID aged 15-64yrs**

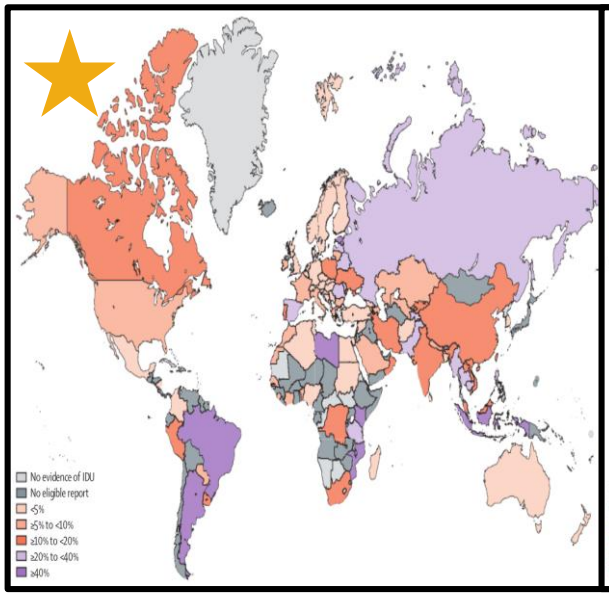
**0.33% (95% UI 0,21-0.49) population prevalence**



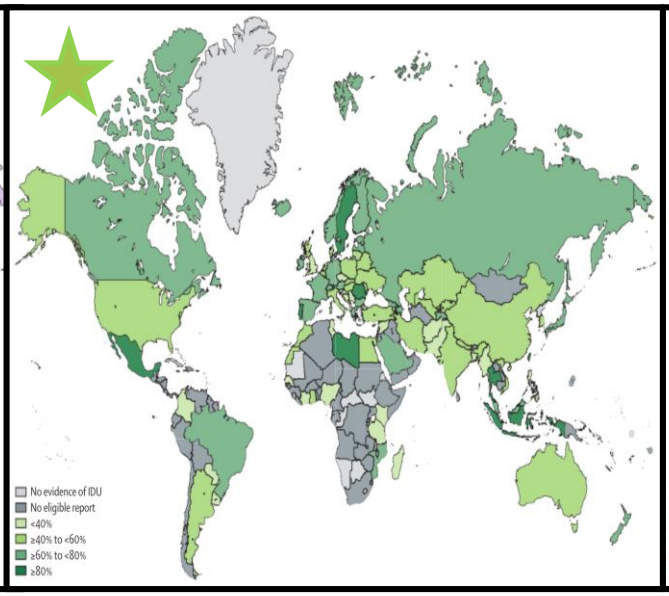

**Lancet Glob Health 2017;5: e1192**

# Estimated HIV, HBsAg and anti-HCV Ab prevalence: PWID

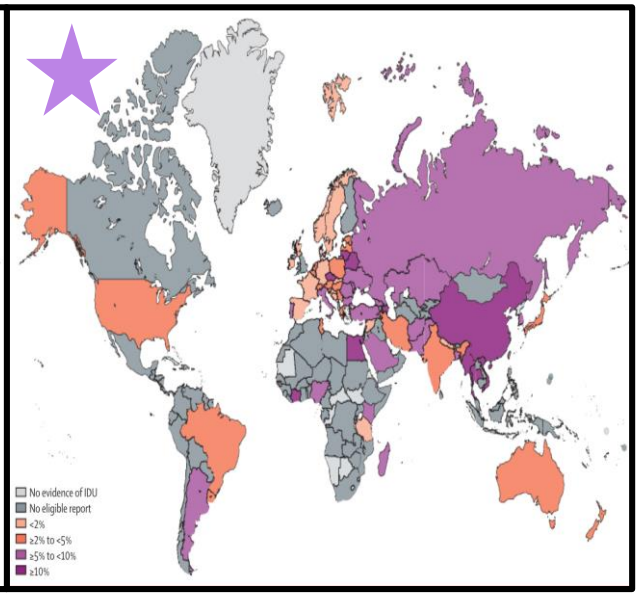
- **HIV positive**: 17.8% (10.8-24.8)
- **anti-HCV positive:** 52.3% (42.4-62.1%)
- **HBsAg positive**: 9.1% (5.1-13.2)




Estimated HIV prevalence




Estimated anti-HCV prevalence




Estimated HBsAg prevalence

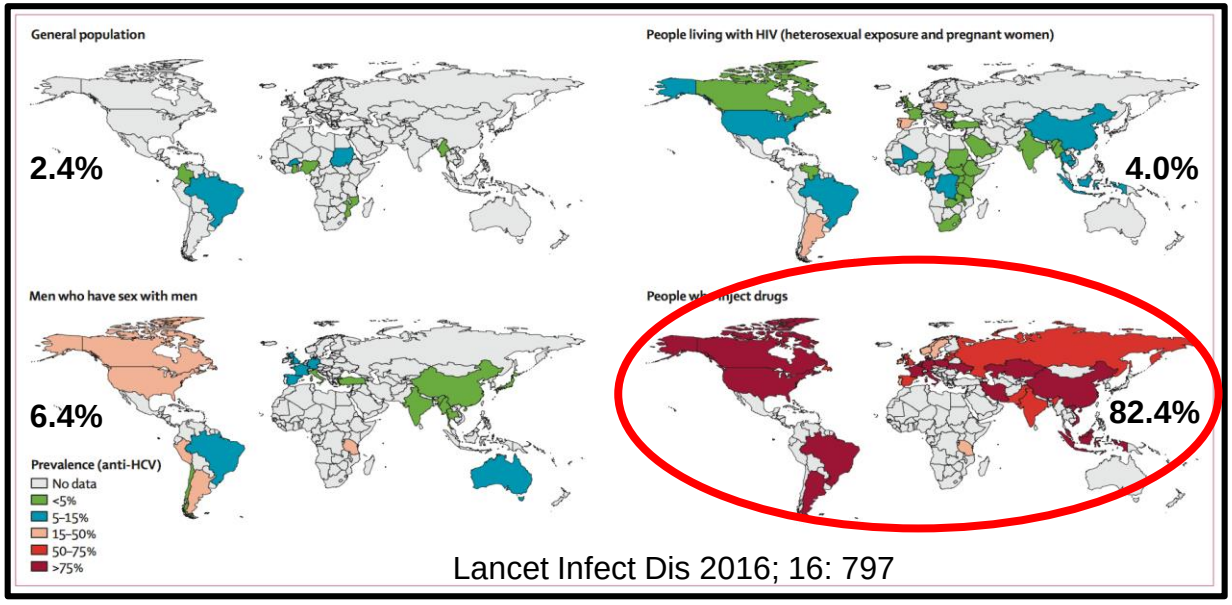
**Lancet Glob Health 2017;5: e1192**

# HIV/HCV Co-infection

**2014: Globally, estimated 2.3M people of 36.7M living with HIV are anti-HCV positive (6.2%): Odds of HCV infection 6x higher if HIV positive**

***anti-HCV positive in HIV-infected individuals*: *Overall prevalence 6.2%***

- **PWID (82.4%): 1.39M HIV-infected PWID**
- MSM (6.4%)
- Pregnant or heterosexual exposure (4.0%)
- **General population (2.4%)**




Lancet Infect Dis 2016; 16: 797

**Best estimates of anti-HCV prevalence of HIV-infected in 4 population samples**

# Syndemic of TB, HIV and viral hepatitis: PWID

**Prisons help to drive TB, HIV, HBV and HCV infection rates**

- Overcrowding and poor nutrition, and lack of access to harm reduction interventions and adequate infection control
- Incarceration poses challenges for health services in providing continuity of care
- If adequate care cannot be provided in prisons, detainees should be able to access health services in the community

Curr Opin HIV AIDS 2012;7(4):345; BMC Pub Health 2008;8(1):245; Eur J Clin Microbiol Infect Dis 2005;24(1):41

# Challenges to Health Care Access: PWID

**Fundamental to ensuring equitable access to health care is the protection of human rights for PWID**

**Need to address challenges**

- Acceptability of services
- Health literacy
- Lack of integrated service provision

# Challenges to Health Care Access: PWID

## Acceptability of services

- Interventions to reduce burden of TB, HIV and viral hepatitis must be acceptable, appropriate and affordable to recipients
  - Promote PWID's participation and ensure retention in care
- Services for PWID may employ appropriate models of service delivery but lack expertise in TB, HIV or viral hepatitis
- Certain specialized TB, HIV or viral hepatitis services may not be acceptable to or appropriate for PWID
- Health services, PWID networks and peer workers should consult on and share training in service design, delivery and evaluation
- Any data and medical records identifying PWIDs are shared only to monitor burden of disease and improve quality of services
  - Not shared with law enforcement agencies

# Challenges to Health Care Access: PWID

## Health literacy

- Inadequate health and treatment literacy
- Concerns about treatment side-effects
- Social and structural barriers

  ➡ Hinder PWID decision-making on reducing disease risk, seeking healthcare and initiating treatment

- Health services should regularly and routinely provide accurate, comprehensible, evidence-based and non-judgemental information to PWID about prevention and treatment of TB, HIV and viral hepatitis
- Health information can be disseminated through community networks and peer workers
- Health services in the community and in prisons should provide staff training to improve understanding of PWID's health/social care needs
  - Increase capacity to prevent and to treat HIV, TB and viral hepatitis

# Challenges to Health Care Access

## Integrated service provision

- PWID commonly experience multiple co-morbidities, often in a context of marginalization, deprivation and mental health conditions
- Integration of services informed by PWIDs greatly increases access to collaborative TB/HIV/Hepatitis activities
  - Facilitates better communication and multidisciplinary care
  - Increases efficiency and cost-effectiveness
  - Fosters trust in service delivery settings and providers
- Establish strong links among health and social services working with PWID

**PloS One. 2012;7(10):e46988; Harm Reduct J. 2013;10(1):7**

# Integrated service provision: PWID

**NDOH: Joint National Multisectoral Coordinating Body**

- Key governmental and nongovernmental stakeholders, including PWID networks and their advocates
- Functions at regional, district, local and facility levels
- Responsible for governance, planning, coordination, implementation, monitoring and resource mobilization for the integrated management of TB, HIV and viral hepatitis among PWID
- ***PWID networks*** working on advocacy, treatment literacy and community mobilization can encourage uptake and engagement in integrated services at all levels of care
- ***Advocacy*** targeted at influencing policy and sustaining political commitment, programme implementation and resource mobilization
    - ***Key to accelerating the integrated management of care***

WHO policy on collaborative TB/HIV activities: guidelines for national programmes and other stakeholders. 2012
WHO Policy guidelines for collaborative TB and HIV services for injecting and other drug users: an integrated approach. 2008

# Integrated service provision: PWID

**Determine the burden of TB, HIV and viral hepatitis among PWID**

- Essential to integrate surveillance activities

**Operational Research**

- Burden of disease in different regions and epidemic settings
- Optimal models of delivery of care and co-management of comorbidities
  - Ensure efficient, effective and acceptable delivery of integrated services best suited to the given context
- Involve communities in an early and sustained manner in research design, development, implementation, monitoring, analysis and dissemination of results

**Monitor and evaluate integrated services for PWID**

WHO policy on collaborative TB/HIV activities: guidelines for national programmes and other stakeholders. 2012
WHO Priority research questions for TB/HIV in HIV-prevalent and resource-limited settings. 2010
J Int AIDS Soc. 2011;14(Suppl 1):S5

# Integrated service provision: PWID

**Reduce the joint burden of TB, HIV, viral hepatitis and other comorbidities through integrated delivery of comprehensive services**

- People-centred models of integrated service delivery

- Ensure access to NSP, OST and other drug dependence treatment services
- Prevent, screen and treat viral hepatitis B and C
- Manage and treat alcohol dependence
- Address mental illness and psychosocial support needs
- Ensure access to nutritional care
- Ensure a standard of health care in prisons equivalent to that found outside prisons

# Models of integrated services: PWID

**Partial co-location, with cross referral to other services as necessary**

- NSPs and street-based outreach programmes provide vital and effective platforms for detection and prevention activities
  - HIV counselling and testing
  - HIV treatment adherence support
  - Screening for TB and viral hepatitis
  - Hepatitis B vaccination
  - Provision of isoniazid preventive therapy
  - Psychosocial support and drug/alcohol dependence treatment services
- Proactive referral to respective specialist services is crucial
- Referral more successful
  - Facilitated with monetary incentives
  - PWID are provided with support for appointment scheduling & transport costs
  - Accompanied by a community health worker or case manager

# Models of integrated services: PWID

## Facility-based integrated services

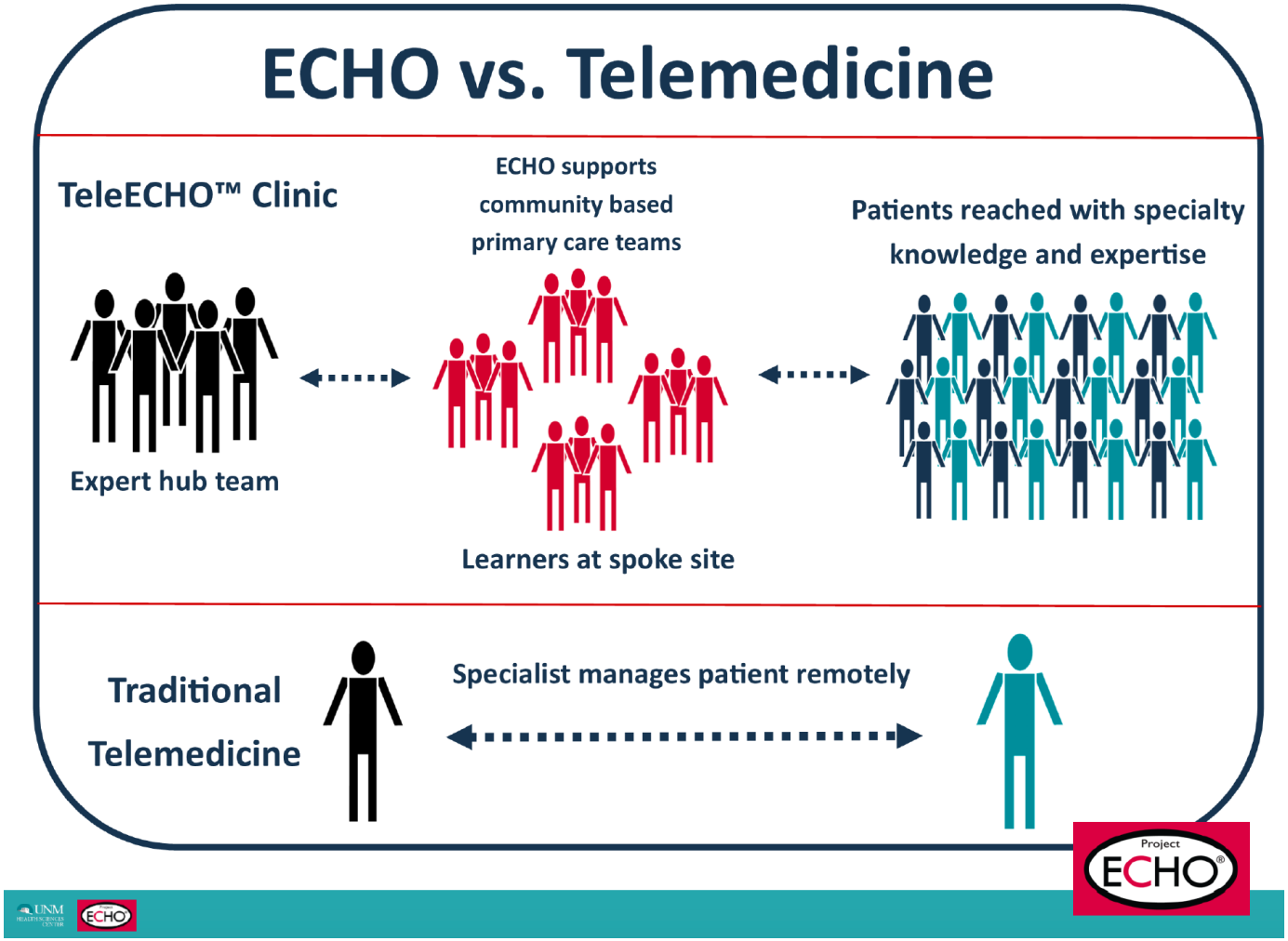
- One designated clinic
- Team of ID specialists, psychiatrists, psychologists, social workers, case workers and nurses work together under combined care protocols
- Enables fully integrated care and services for:
  - ART
  - OST and NSP
  - TB
  - Hepatitis B and C
  - Addiction services
  - Psychosocial support

# Models of integrated services: PWID

**Integrated outreach services**

**All providers, including NGO outreach teams, work together to achieve**

- Integrated drug dependence treatment, and TB, HIV and viral hepatitis services
- Delivered at one location that is agreed to and convenient for the patient
- Relies on informal referral networks and outreach teams to act as mediators for coordinating the multiple services
- Collaboration between outreach teams, health-care providers, services for sheltered housing organizations, and clients
    - Allows delivery of individually tailored treatment in one setting: clinic and community settings

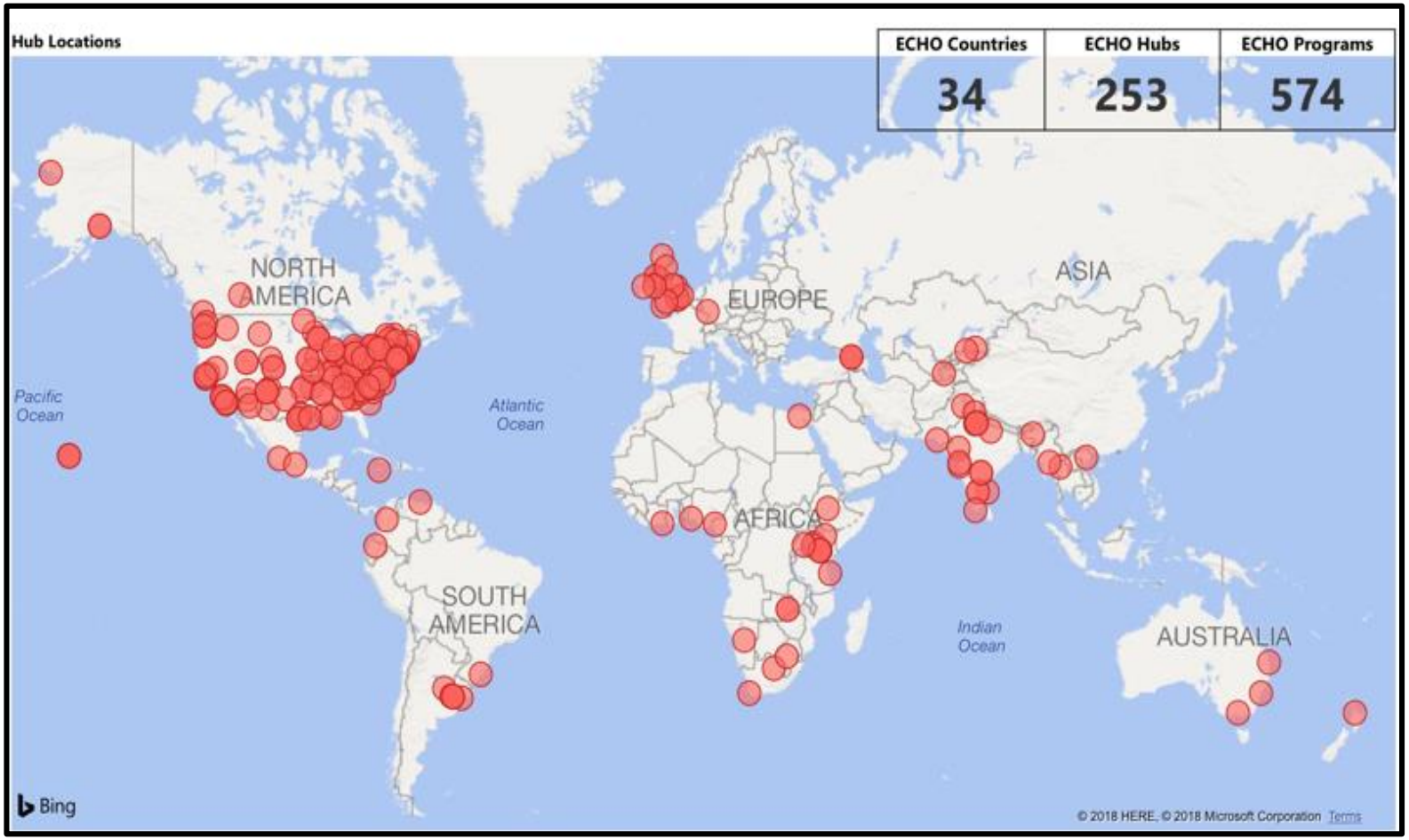



**HUBS:** Disease specialist, addiction specialist, social worker, psychologist, Pharmacist

**Spokes:** Primary care/community based clinics, prisons

**Effectively used in TB/HIV, Viral hepatitis, Drug addiction and Education**

# Viral Hepatitis in sub-Saharan Africa
# ECHO Program

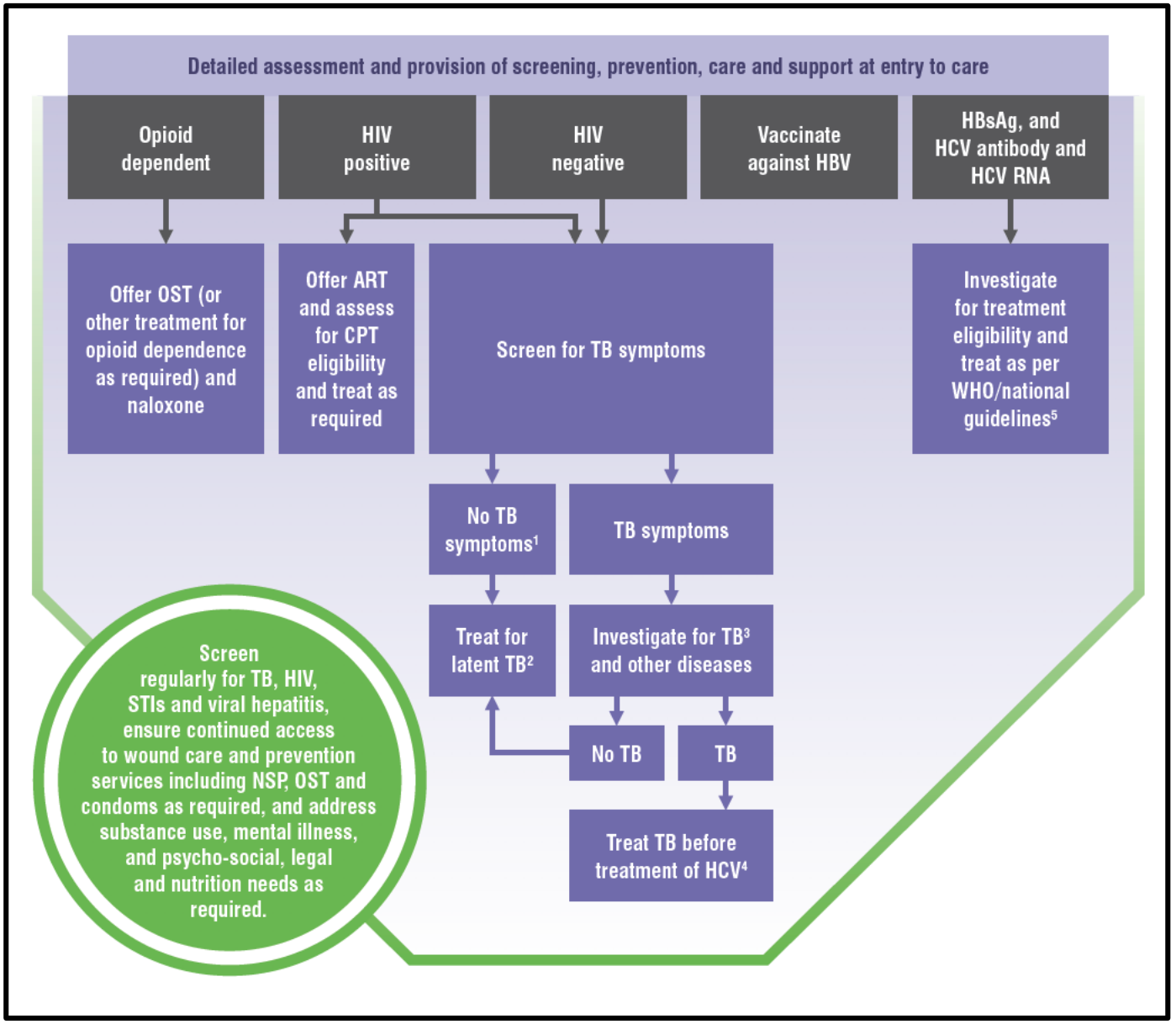




## Global impact of Project ECHO

- **34 countries including Georgia, Pakistan and India**
- **1 200 clinical sites in underserved communities**
- **Management of >50 different diseases**

*Project ECHO, Lancet Gastro Hepatol Feb 2019*

# Algorithm of comprehensive services for PWID




**WHO Integrating collaborative TB and HIV services within a comprehensive package of care for PWID: Consolidated Guidelines 2016**

# Conclusions

**PWID are at increased risk of TB, HIV, HBV and HCV**

- Internationally endorsed comprehensive package of harm reduction measures for PWID
  - Efficacious and cost effective in addressing this syndemic of infections
  - PWID access to recommended package of services remains inadequate
- Integration of services informed by PWIDs greatly increases access to collaborative TB/HIV/Hepatitis activities
  - Need to choose the appropriate model – Consider ECHO
  - Supported at national, regional and facility level by Department of Health
- South Africa with a low HCV seroprevalence in general population is in an unique situation to eliminate HCV with rapid upscale of screening, diagnosis and treatment of key vulnerable populations

# Syndemic of TB, HIV and viral hepatitis: PWID

- HIV/HCV co-infection rates approaching 100% reported in a number of countries
- In high TB burden countries, comorbidity with HBV and HCV is common among both HIV-positive and HIV-negative TB patients who inject drugs
- Co-infection with TB and HCV among PWID is estimated to be higher than the levels of HIV-associated TB
- At least two thirds of PWID who develop TB are estimated to be anti-HCV positive, compared with one third of PWID who develop TB & live with HIV
- Prisons help to drive TB, HIV, and HBV and HCV infection rates among PWID
  - Overcrowding and poor nutrition, and lack of access to harm reduction interventions and adequate infection control
- Rates of HIV and hepatitis B and C infections in prisons are also considerably higher than in the general community
- Incarceration poses challenges for health services in providing continuity of care

Curr Opin HIV AIDS 2012;7(4):345; BMC Pub Health 2008;8(1):245; Eur J Clin Microbiol Infect Dis 2005;24(1):41

# Integrated service provision: PWID

**Joint planning for integrated delivery of services**

- Clearly define roles & responsibilities of those delivering services for PWID
- Education & training programmes aim to build sustainable effective teams
- Ensure appropriate level of skills to manage TB, HIV, viral hepatitis, drug dependence and other comorbidities experienced by PWID
- National programmes develop specific strategies to enhance involvement of PWID/peer workers, NGOs and other civil society organizations in developing and implementing policy and programmes and advocacy
- PWID networks working on advocacy, treatment literacy and community mobilization can encourage uptake and engagement in integrated services at all levels of care
  - Provide support in effective linkage, treatment and prevention
  - Recognition and support of such networks; and monitoring is critical
- Advocacy targeted at influencing policy and sustaining political commitment, programme implementation and resource mobilization
  - Key to accelerating the integrated management of care

WHO policy on collaborative TB/HIV activities: guidelines for national programmes and other stakeholders. 2012
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# Integrated service provision: PWID

**Establish & strengthen mechanisms for integrated delivery of services**

- Set up and strengthen a coordinating body for integrated delivery of services for PWID, with representation from key stakeholders
- Determine the burden of TB, HIV and viral hepatitis among PWID
- Joint planning for the integrated delivery of services for PWID
- Joint national multisectoral coordinating body of key governmental and nongovernmental stakeholders, including PWID networks and their advocates

# HIV/HBV Co-infection

**About 2.7 million (IQR: 1.8–3.9) of 36.7 million PLHIV are HBV-infected**

- Global HBV prevalence in HIV-infected persons is 7.4%
- HBV prevalence is similar across different groups of HIV-infected persons
  - Persons without higher risk behaviours (6.6%)
  - PWID (7.0%)
  - MSM (6.1%)
- Most HIV/HBV-coinfected persons live in SSA (71%; 1.96 million)

## HIV/HBV coinfection

- Accelerated progression of chronic hepatitis to cirrhosis
- Higher liver-related mortality: cirrhosis and HCC
- Present ART regimens contain Tenofovir
  - End of 2016, only about 50% people with HIV were receiving ART

# Manage and treat alcohol dependence

## Significant comorbidity with alcohol dependence among PWID

- Excessive alcohol use associated with poor adherence and poor treatment outcomes for both HIV and TB
- Higher risk of drug-induced hepatotoxicity during the treatment of both active and latent TB
- Accelerates progression of HCV and HBV related fibrosis

## Screening for hazardous & harmful alcohol use recommended

- Using a validated instrument that can be incorporated into routine clinical practice (e.g. AUDIT-3, AUDIT-C or ASSIST)
- Psychosocial support should be routinely offered to alcohol-dependent patients in non-specialist healthcare settings

# Mental Health and Psychosocial Support

- Address mental health and psychosocial support needs
- Comorbidity of mental illness with problematic drug use and TB and HIV infection is common
- Adherence is known to be complicated by mental health comorbidity
  - Heightened forgetfulness, poor organization and poor comprehension of treatment plan
- Social factors (living conditions, education and occupational situation) and legal issues may compromise continued access to care
- Thorough individual assessment that identifies specific mental illness and psychosocial needs, and motivations of the individual helps to inform the individual treatment plan
- Structured psychosocial interventions should be available

Guidelines for the psychosocially assisted pharmacological treatment of opioid dependence. Geneva, World Health Organization. 2009

# Syndemic of TB, HIV and viral hepatitis: PWID

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# Prison healthcare

**Prison healthcare is an integral part of public health-care system**

- Ensure standard of health care in prisons equivalent to that found outside prisons through harmonization of interventions and linkage to services in the community
- Emphasize early disease detection and treatment, health promotion and disease prevention
- Integral part of national efforts to provide access to HIV, viral hepatitis and TB services, as well as to NSPs and evidence-based drug dependence treatment
- If adequate care cannot be provided in prisons, detainees should be able to access health services in the community