

## HIV and Viral Hepatitis among Imprisoned Key Populations

### Web Appendix 1

#### Search terms:

##### PUBMED:

###### #1 HIV

HIV [MeSH] OR "Acquired Immunodeficiency Syndrome Virus"[MeSH] OR "AIDS-Related Complex"[MeSH] OR "AIDS-Related Opportunistic Infections"[MeSH] OR "HIV Infections"[MeSH] OR "HIV Seropositivity"[MeSH] OR "AIDS-Related Complex"[MeSH] OR "HIV Seroprevalence"[MeSH] OR "HIV-1"[MeSH] OR "HIV-2"[MeSH] OR "human immunodeficiency virus" [tw] OR "human immune deficiency virus" OR HIV[tw] OR "HIV/AIDS"[tw] OR "HIV-infected"[tw] OR AIDS [tw]

###### #2 HCV

"Hepatitis C"[MeSH] OR "Hepatitis C virus" [MeSH] OR "HCV"[tw] OR "Hepatitis C"[tw] OR "liver fibrosis"[tw] OR "viral hepatitis" [tw]

###### #3 HBV

"Hepatitis B"[MeSH] OR "Hepatitis B virus" [MeSH] OR "HBV"[tw] OR "Hepatitis B"[tw]

###### #4 TB

Tuberculosis [MeSH] OR "Mycobacterium tuberculosis"[MeSH] OR "Mycobacterium tuberculosis" [tw] OR Tuberculosis [tw] OR "TB"[MeSH] OR "MDR-TB"[tw] OR "XDR-TB"[tw] OR "Mtb"[tw]

###### #5 Prison

Prisons [MeSH] OR Prisoners [MeSH] OR Criminals [MeSH] OR Prison\* [tw] OR "Concentration Camps" [MeSH] OR Incarcerat\* [tw] OR Penitentiari\* [tw] OR imprison\* [tw] OR penal institute\* [tw] OR Jail\* [tw] OR inmate\* [tw] OR "Correctional setting" [tw] OR "Correctional settings" [tw] OR detain\* [tw] OR detention\* [tw] OR "Correctional Centre" [tw] OR "Correctional Centres" [tw] OR incarcerat\* [tw] OR inmate\* [tw]

###### #6 Compulsory Drug Detention Centers

"compulsory drug detention center" [tw] "compulsory drug detention" [tw] OR "compulsory drug treatment" OR compulsory rehabil\* OR "correction center" [tw] correction\* facilit\* [tw] OR "re-education through labor" [tw] "laojiaosuo"[tw] OR "long-term detention" [tw] OR labor camp\* [tw]

(#1 OR #2 OR #3 OR #4) AND (#5 OR #6)

Restricted to last 10 years

##### Embase:

###### #1 HIV

'Human immunodeficiency virus'/exp OR 'acquired immune deficiency syndrome'/exp OR 'AIDS related complex'/exp OR 'AIDS-Related Opportunistic Infections' OR 'Human immunodeficiency virus infection'/exp OR 'HIV Seropositivity' OR 'AIDS-Related Complex' OR 'HIV Seroprevalence' OR 'Human immunodeficiency virus 1'/exp OR 'Human immunodeficiency virus 2'/exp OR 'human immune deficiency virus' OR 'HIV' OR 'HIV/AIDS' OR 'HIV-infected' OR 'AIDS'

###### #2 HCV

'hepatitis C'/exp OR 'Hepatitis C virus'/exp OR 'HCV' OR (Hepatitis NEXT/1 C) OR (liver NEXT/1 fibrosis) OR (viral NEXT/1 hepatitis)

#3 HBV

'hepatitis B'/exp OR 'Hepatitis B virus'/exp OR 'HBV' OR (Hepatitis NEXT/1 B)

#4 TB

'tuberculosis'/exp OR 'Mycobacterium tuberculosis'/exp OR 'drug resistant tuberculosis'/exp OR 'extensively drug resistant tuberculosis'/exp OR (Mycobacterium NEXT/1 tuberculosis) OR 'Tuberculosis' OR 'TB' OR 'MDR-TB' OR 'XDR-TB' OR 'Mtb'

#5 Prison

'prison'/exp OR 'prisoner'/exp OR 'offender'/exp OR Prison\* OR (Concentration NEXT/1 Camp\*) OR Incarcerate\* OR Penitentiary\* OR imprison\* OR (penal NEXT/1 institute\*) OR Jail\* OR inmate\* OR (Correctional AND setting\*) OR detain\* OR detention\* OR (Correctional AND Centre\*) OR inmate\*

#6 Compulsory Drug Detention Centers

'detention camp'/exp OR 'compulsory drug detention' OR 'compulsory drug detention' OR 'compulsory drug treatment' OR (compulsory NEXT/1 rehab\*) OR (correction\* AND center\*) OR (correction\* NEXT/1 facilit\*) OR 're-education through labor' OR 'laojiaosuo' OR ('long-term' NEXT/1 detention) OR (labor NEXT/1 camp\*)

(#1 OR #2 OR #3 OR #4) AND (#5 OR #6)

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#### **CINAHL:**

#1 HIV

MH "Human immunodeficiency virus" OR MH "HIV-1" OR MH "AIDS Serodiagnosis" OR MH "HIV Infections" OR MH "HIV Seropositivity" OR MH "Acquired Immunodeficiency Syndrome" OR TX "acquired immune deficiency syndrome" OR TX "AIDS related complex" OR TX "AIDS-Related Opportunistic Infections" OR TX "Human immunodeficiency virus infection" OR TX "HIV Seropositivity" OR TX "AIDS-Related Complex" OR TX "HIV Seroprevalence" OR TX "Human immunodeficiency virus 1" OR TX "Human immunodeficiency virus 2" OR TX "human immune deficiency virus" OR TX "HIV" OR TX "HIV/AIDS" OR TX "HIV-infected" OR TX "AIDS"

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#5 Prison

MH "Correctional Facilities" OR MH "prisoners" OR TX "Prison\*" OR TX "Incarcerate\*" OR TX "Penitentiary" OR TX "Penitentiaries" OR TX "imprisonment" OR TX "penal institute\*" OR TX "Jail" OR "Jails" OR TX "inmate" OR TX "inmates" OR TX "correctional setting" OR "Correctional settings" OR TX "detain" OR TX "detention" OR TX "detainees" OR TX Correctional Centre" OR TX "Correctional Centres"

#6 Compulsory Drug Detention Centers

TX "compulsory drug detention center" OR TX "compulsory drug detention" OR TX "compulsory drug treatment" OR TX "compulsory rehabilitation" OR TX "correctional facility" OR TX "corrections facility" OR TX "correctional

facilities" OR TX "corrections facilities" OR TX "re-education through labor" OR TX "laojiaosuo" OR TX "long-term detention" OR TX "labor camp" OR TX "labor camps"

(S1 OR S2 OR S3 OR S4) AND (S5 OR S6)

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**Criminal Justice Abstracts with Full Text:**

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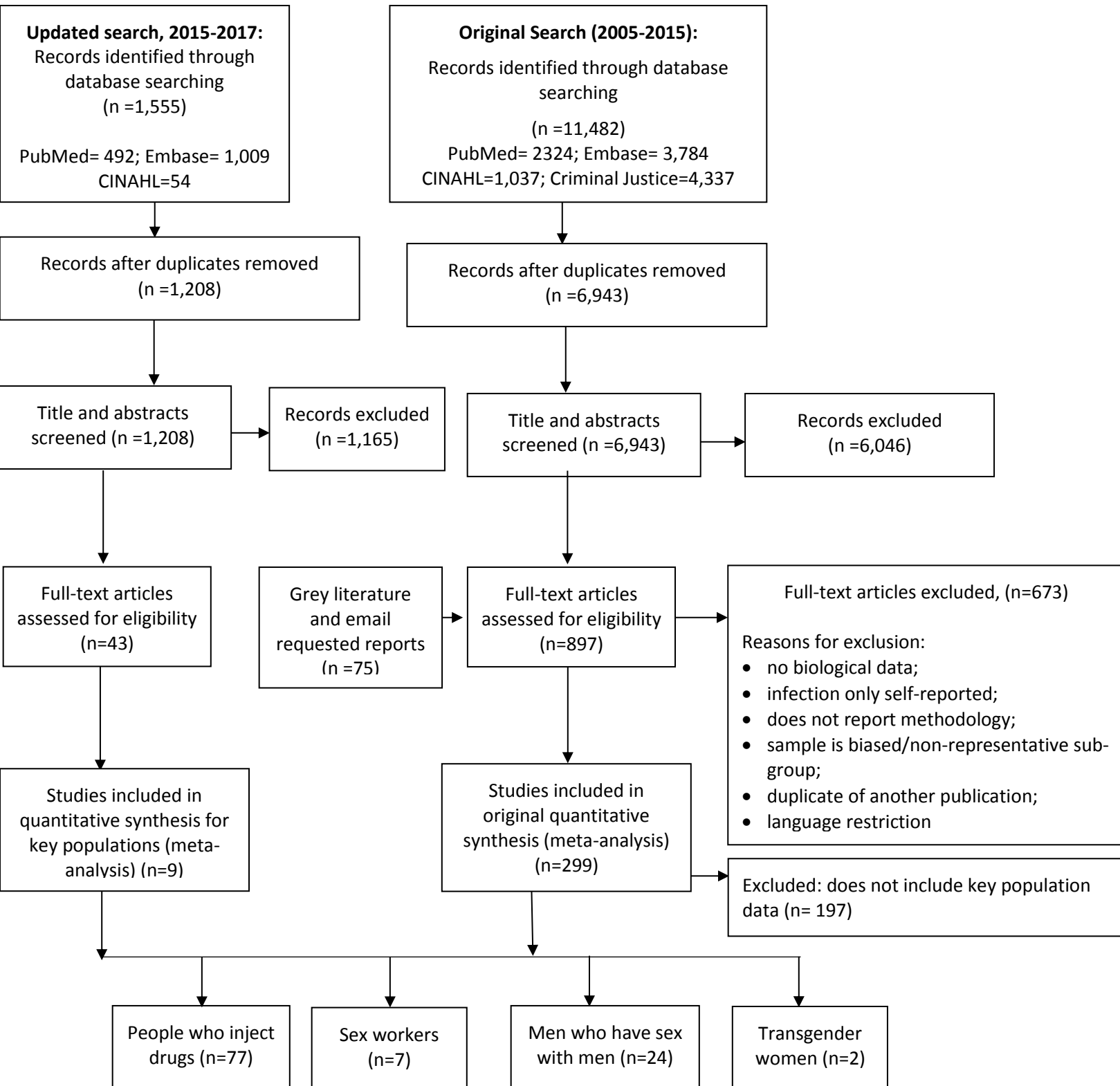
**#6 Compulsory Drug Detention Centers**

TX "compulsory drug detention center" OR TX "compulsory drug detention" OR TX "compulsory drug treatment" OR TX "compulsory rehabilitation" OR TX "correctional facility" OR TX "corrections facility" OR TX "correctional facilities" OR TX "corrections facilities" OR TX "re-education through labor" OR TX "laojiaosuo" OR TX "long-term detention" OR TX "labor camp" OR TX "labor camps"

(S1 OR S2 OR S3 OR S4) AND (S5 OR S6)

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**Web Figure 1.** PRISMA search diagram.



**Web Table 1.** HIV and viral hepatitis among people who inject drugs in prison and closed settings.

Study Data												
Ref	National or Sub-national	Subnational area	Facility Type	Year(s) of study	HIV prevalence		HBV prevalence		PWID HCV prevalence		Coverage of HIV, HBV, HCV prevention & care	Comments
					non-PWID HIV prevalence (%)	PWID HIV prevalence (%)	non-PWID HBV prevalence (%)	PWID HBV prevalence (%)	non-PWID anti-HCV prevalence (%)	PWID anti-HCV prevalence (%)		
<b>ASIA AND PACIFIC</b>												
<b>Australia</b>												
(1)	National	NA	Prison	2004	0.5%	0.8%	9.0%	27.0%	4.0%	56.0%	NR	
(2)	National	NA	Prison	2010	0.0%	0.0%	19.7%	18.8%	1.0%	51.0%	NR	
(3)	National	NA	Prison	2013	0.0%	0.0%	16.9%	19.0%	4.4%	58.2%	NR	
(4)	Sub-national	New South Wales, Queensland, Tasmania and Western Australia	Reception Prisons	2004	0.6%	0.8%	0.6%	0.8%	3.3%	56.6%	NR	
(4)	Sub-national	New South Wales, Queensland, Tasmania and Western Australia	Reception Prisons	2007	0.5%	0.9%	0.5%	0.9%	3.5%	57.7%	NR	
(4)	Sub-national	New South Wales, Queensland, Tasmania and Western Australia	Reception Prisons	2010	0.0%	0.0%	0.0%	0.0%	0.7%	52.0%	NR	
(5)	Sub-national	Queensland	Prison	2008-2010	NR	NR	NR	NR	NR	47.4%	NR	
(6)	Sub-national	Queensland	Prison	NR	NR	NR	NR	NR	NR	20.7%	NR	Sample is <25yo
(6)	Sub-national	Queensland	Prison	NR	NR	NR	NR	NR	NR	29.4%	NR	Sample is >=25yo
<b>China</b>												
(7)	Sub-national	Beijing	CDDC	2007	1.9%	10.3%	NR	NR	NR	NR	NR	

Study Data												
Ref	National or Sub-national	Subnational area	Facility Type	Year(s) of study	HIV prevalence		HBV prevalence		PWID HCV prevalence		Coverage of HIV, HBV, HCV prevention & care	Comments
					non-PWID HIV prevalence (%)	PWID HIV prevalence (%)	non-PWID HBV prevalence (%)	PWID HBV prevalence (%)	non-PWID anti-HCV prevalence (%)	PWID anti-HCV prevalence (%)		
<b>Indonesia</b>												
(8)	Sub-national	West Java	Narcotic referral prison	2007-2010	2.1%	25.0%	NR	NR	NR	NR	NR	Targeted screening (2009-2010)*
(8)	Sub-national	West Java	Narcotic referral prison	2007-2010	0.4%	37.0%	NR	NR	NR	NR	NR	Routine screening (2007-2009)
(9)	Sub-national	Central Java	Prison	2009	1.8%	13.8%	3.9%	1.1%	28.8%	50.0%	NR	
<b>Philippines</b>												
(10)	Sub-national	Cebu	Prison	2014-2015	NR	NR	6.1%	9.7%	13.74%	81.34%	NR	
<b>Taiwan</b>												
(11)	Sub-national	Taoyuan	CDDC	2005	0.5%	25.5%	NR	NR	NR	89.6%	NR	Sample is male only
(12)	Sub-national	Southern Taiwan	Jail	2008-2010	NR	52.8%	NR	15.3%	NR	91.3%	NR	
(13)	National	NA	CDDC	2006	NR	24.2%	NR	NR	NR	NR	Of HIV+ PWID, 72% in HIV care, 9% on ART	
(13)	National	NA	CDDC	2007	NR	20.1%	NR	NR	NR	NR	Of HIV+ PWID, 75% in HIV care, 9% on ART	
(13)	National	NA	CDDC	2008	NR	17.1%	NR	NR	NR	NR	Of HIV+ PWID, 4341 attended a designated AIDS/HIV clinic and 582 were on ART	
(13)	National	NA	CDDC	2009	NR	22.7%	NR	NR	NR	NR	Of HIV+ PWID, 75% in HIV care, 12%on ART	

Ref	Study Data				HIV prevalence		HBV prevalence		PWID HCV prevalence		Coverage of HIV, HBV, HCV prevention & care	Comments
	National or Sub-national	Subnational area	Facility Type	Year(s) of study	non-PWID HIV prevalence (%)	PWID HIV prevalence (%)	non-PWID HBV prevalence (%)	PWID HBV prevalence (%)	non-PWID anti-HCV prevalence (%)	PWID anti-HCV prevalence (%)		
(13)	National	NA	CDDC	2010	NR	26.9%	NR	NR	NR	NR	Of HIV+ PWID, 76% in HIV care, 19% on ART	
(14)	National	NA	CDDC	2005-2007	NR	42.0%	NR	NR	NR	NR	NR	
(15)	Sub-national	Penghu County (West Taiwan)	Correction center	1997	NR	NR	NR	22.2%	NR	59.4%	NR	
(16)	National	NA	Prisons, Detention Juvenile correction	1994	NR	NR	12.8%	26.4%	NR	NR	NR	
<b>Pooled prevalence ratio among PWID compared to non-PWID in Asia and the Pacific</b>					13.8 (95%CI:3.9-50.3; $p<0.001$ ; $I^2: 83.4\%$ )		1.5 (95%CI: 1.0-2.3; $p=0.05$ ; $I^2: 83.8\%$ )		9.0 (95%CI: 4.1-19.7; $p<0.001$ ; $I^2: 96.4\%$ )			
<b>EASTERN EUROPE AND CENTRAL ASIA</b>												
<b>Bosnia and Herzegovina</b>												
(17)	Sub-national	Zenica	High Security Male Penitentiary	2013	NR	NR	NR	NR	4.9%	33.3%	NR	
<b>Bulgaria</b>												
(18)	Sub-national	NR	Prison	2009	NR	NR	NR	NR	26.5%	61.4%	NR	
(19)	Sub-national	NR	Juvenile correctional facility	2010	NR	NR	NR	NR	26.4%	66.7%	NR	
<b>Croatia</b>												
(20)	Sub-national	Remetinec in Zagreb	Prison	2007	NR	0.0%	NR	24.0%	NR	44.0%	NR	
<b>Pooled prevalence ratio among PWID compared to non-PWID in Eastern Europe and Central Asia</b>					Insufficient data			Insufficient data		Insufficient data		

Study Data												
Ref	National or Sub-national	Subnational area	Facility Type	Year(s) of study	HIV prevalence		HBV prevalence		PWID HCV prevalence		Coverage of HIV, HBV, HCV prevention & care	Comments
					non-PWID HIV prevalence (%)	PWID HIV prevalence (%)	non-PWID HBV prevalence (%)	PWID HBV prevalence (%)	non-PWID anti-HCV prevalence (%)	PWID anti-HCV prevalence (%)		
<b>Latin America and the Caribbean</b>												
<b>Belize</b>												
(21)	National	NA	Central Prison	2005	3.9%	14.3%	NR	NR	NR	NR	NR	
<b>Brazil</b>												
(22)	Sub-national	Goiás, Central Brazil	Prisons	2005	NR	NR	24.1%	66.7%	3.5%	66.7%	NR	
(23)	Sub-national	Sao Paulo	Prison	2003	3.0%	34.5%	NR	NR	NR	NR	NR	
(24)	Sub-national	Sao Paulo	Prison	2003	NR	NR	NR	NR	5.3%	44.8%	NR	
(25)	Sub-national	Sao Paulo	Prison	2007	1.0%	13.8%	19.0%	51.7%	3.5%	34.5%	NR	
(26)	Sub-national	Colatina	Prisons	2010	NR	NR	NR	NR	NR	0.4%	NR	
(27)	Sub-national	Mato Grosso do Sul	Prison	2009	NR	NR	NR	NR	2.6%	24.7%	NR	
(28)	Sub-national	Mato Grosso do Sul	Prison	2013-2014	NR	NR	NR	NR	2.4%	25.0%		
(29)	Sub-national	Sergipe	Prison	2009-2010	NR	NR	NR	NR	1.1%	20.6%	NR	
<b>Mexico</b>												
(30)	Sub-national	Durango	Correctional facility	2001-2002	NR	NR	NR	NR	7.0%	66.7%	NR	
<b><i>Pooled prevalence ratio among PWID compared to non-PWID in Latin America and the Caribbean</i></b>					<i>10.5 (95%CI: 5.5-20.0; p&lt;0.001; I<sup>2</sup>:0.0%)</i>			<i>Insufficient data</i>		<i>10.4 (95%CI: 7.9 – 13.7; p&lt;0.001; I<sup>2</sup>: 0.0%)</i>		
<b>MIDDLE EAST AND NORTH AFRICA</b>												
<b>Iran</b>												
(31)	Sub-national	Hamedan	Prison	2002	1.1%	0.7%	NR	NR	29.1%	31.5%	NR	Sample is people who use drugs
(32)	Sub-national	Assadabad & Isfahan Provinces	Central Prison and Drop in Centers	NR	NR	NR	NR	NR	NR	43.4%	NR	



Study Data												
Ref	National or Sub-national	Subnational area	Facility Type	Year(s) of study	HIV prevalence		HBV prevalence		PWID HCV prevalence		Coverage of HIV, HBV, HCV prevention & care	Comments
					non-PWID HIV prevalence (%)	PWID HIV prevalence (%)	non-PWID HBV prevalence (%)	PWID HBV prevalence (%)	non-PWID anti-HCV prevalence (%)	PWID anti-HCV prevalence (%)		
(33)	Sub-national	Gorgan	Central Prison	2002-2003	NR	5.8%	NR	4.1%	NR	23.1%	NR	
(34)	Sub-national	Hormozgan	Prison	2002	NR	15.1%	NR	4.7%	NR	64.8%	NR	
(35)	Sub-national	Isfahan	Prison	2009	NR	6.4%	NR	NR	NR	NR	NR	Sample is PWID
(36)	Sub-national	Iran	CDDC	2006	NR	24.4%	NR	NR	NR	80.0%	NR	
(37)	Sub-national	Isfahan	Prison	2009	NR	NR	NR	NR	NR	41.6%	NR	
(38)	Sub-national	Shiraz, Fars Province	Jail	2007	NR	6.6%	NR	NR	NR	NR	NR	Sample is male PWID
(39)	Sub-national	Razavi Khorasan Province	Prison	2008	NR	NR	3.2%	5.4%	26.5%	71.2%	NR	
(40)	Sub-national	Tehran	Detention center	2006	NR	NR	NR	NR	NR	80.0%	NR	
(41)	Sub-national	Tehran	CDDC	2006	NR	24.4%	NR	NR	NR	NR	NR	
(42)	Sub-national	Tehran	Prison	2001-2002	NR	NR	NR	NR	NR	78.3%	NR	
(43)	Sub-national	Guilan	Prison	2003	NR	NR	NR	NR	NR	88.9%	NR	
(44)	Sub-national	Isfahan	Prison	2009	NR	NR	6.5%	40.0%	5.9%	60.0%	NR	Sample is female only
(45)	Sub-national	Isfahan	correctional center	2008-2009	NR	NR	NR	NR	2.6%	50.0%	NR	
(46)	Sub-national	Isfahan	correctional center	2008-2009	NR	NR	NR	13.9%	NR	NR	NR	
(47)	National	NA	Prison	2003	NR	14.0%	2.8%	4.0%	18.3%	76.0%	NR	
(48)	Sub-national	Tehran	Prison	2013-2014	NR	8.3%	NR	NR	NR	NR	NR	Sample is male only
(49)	National	NA	Prison	1999	NR	1.56%	NR	NR	NR	NR	NR	
(49)	National	NA	Prison	2000	NR	1.81%	NR	NR	NR	NR	NR	
(49)	National	NA	Prison	2001	NR	3.12%	NR	NR	NR	NR	NR	

Study Data					HIV prevalence		HBV prevalence		PWID HCV prevalence		Coverage of HIV, HBV, HCV prevention & care	Comments
Ref	National or Sub-national	Subnational area	Facility Type	Year(s) of study	non-PWID HIV prevalence (%)	PWID HIV prevalence (%)	non-PWID HBV prevalence (%)	PWID HBV prevalence (%)	non-PWID anti-HCV prevalence (%)	PWID anti-HCV prevalence (%)		
(49)	National	NA	Prison	2002	NR	3.83%	NR	NR	NR	NR	NR	
(49)	National	NA	Prison	2003	NR	2.78%	NR	NR	NR	NR	NR	
(49)	National	NA	Prison	2004	NR	3.05%	NR	NR	NR	NR	NR	
(49)	National	NA	Prison	2005	NR	3.24%	NR	NR	NR	NR	NR	
(49)	National	NA	Prison	2006	NR	2.83%	NR	NR	NR	NR	NR	
(49)	National	NA	Prison	2007	NR	1.71%	NR	NR	NR	NR	NR	
(49)	National	NA	Prison	2008	NR	2.01%	NR	NR	NR	NR	NR	
(49)	National	NA	Prison	2009	NR	1.54%	NR	NR	NR	NR	NR	
(49)	National	NA	Prison	2010	NR	1.37%	NR	NR	NR	NR	NR	
(49)	National	NA	Prison	2011	NR	1.28%	NR	NR	NR	NR	NR	MMT: provided to 38,256 by 2011; VCT available in all prisons by 2011
(50)	Sub-national	Sari	CDDC	2001-2003	NR	NR	NR	NR	10.5%	77.0%	NR	
(51)	Sub-national	Southern Khorasan	Prison	2009-2010	NR	NR	9.4%	8.5%	6.1%	20.3%	NR	
(52)	Sub-national	Tehran	CDDC	2001-2002	NR	17.0%	NR	4.5%	NR	80.5%	NR	Sample is PWID
<b>Pakistan</b>												
(53)	Sub-national	Karachi	Central Prison	NR	NR	NR	NR	NR	2.0%	84.2%	NR	
<b><i>Pooled prevalence ratio among PWID compared to non-PWID in the Middle-East and North Africa</i></b>					<i>Insufficient data</i>		<i>1.7 (95%CI: 0.9-3.3; p=0.09; I<sup>2</sup>: 54.0%)</i>		<i>4.1 (95%CI: 2.5 – 6.7; p&lt;0.001; I<sup>2</sup>: 93.5%)</i>			
<b>NORTH AMERICA</b>												
<b>Canada</b>												
(54)	Sub-national	Ontario	Remand Facilities	2003-2004	0.7%	5.7%	NR	NR	4.1%	54.7%	NR	
(55)	Sub-national	Quebec (province)	Provincial Prison	2003	0.5%	10.2%	NR	NR	2.7%	55.6%	NR	

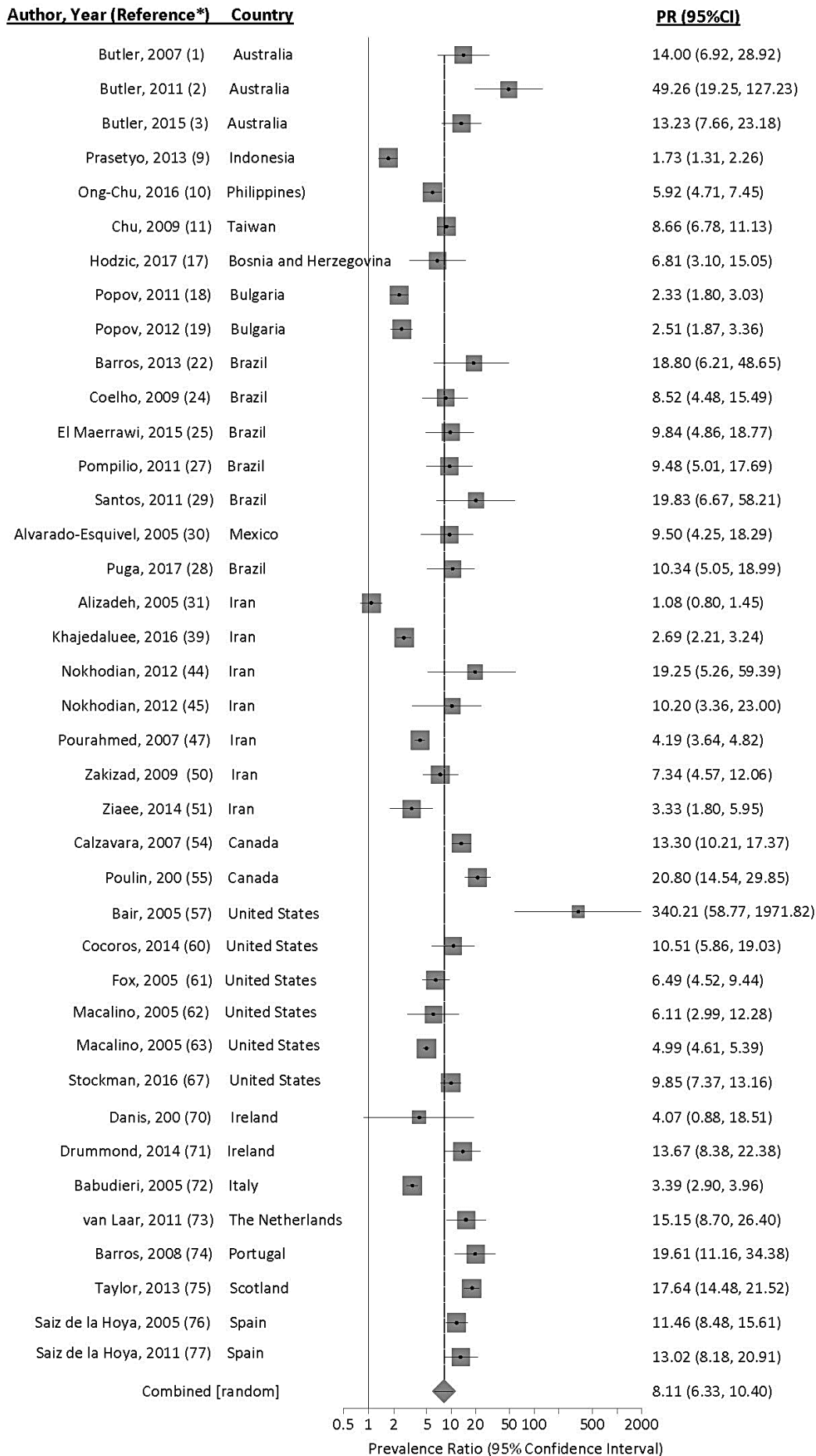
Study Data												
Ref	National or Sub-national	Subnational area	Facility Type	Year(s) of study	HIV prevalence		HBV prevalence		PWID HCV prevalence		Coverage of HIV, HBV, HCV prevention & care	Comments
					non-PWID HIV prevalence (%)	PWID HIV prevalence (%)	non-PWID HBV prevalence (%)	PWID HBV prevalence (%)	non-PWID anti-HCV prevalence (%)	PWID anti-HCV prevalence (%)		
<b>USA</b>												
(56)	Sub-national	Connecticut	Correctional facility	1994-1996	4.2%	20.4%	NR	NR	NR	NR	NR	Sample is female only
(57)	Sub-national	Texas	Juvenile Detention Center	2000-2001	NR	NR	NR	NR	0.1%	35.8%	NR	
(58)	Sub-national	New York City	Jail	2006	5.2%	16.9%	NR	NR	NR	NR	NR	
(59)	Sub-national	King County, Washington	Jails	1998-2002	NR	2.5%	NR	NR	NR	NR	NR	Sample is PWID
(60)	Sub-national	Massachusetts	County Correctional Facility	2009-2011	1.2%	0.3%	NR	NR	3.6%	38.0%	22% accepted HCV screening; 25% accepted HIV screening; 38% of HCV infected prisoners received post-release care	
(61)	Sub-national	California	Correctional facility	NR	NR	NR	NR	NR	10.2%	66.2%	NR	
(62)	Sub-national	Rhode Island	Jail and Prison facility	1996-1997	NR	NR	2.8%	8.6%	6.9%	42.4%	NR	Sample is female recidivists only
(63)	Sub-national	Rhode Island	Jail and Prison facility	1998-2000	NR	NR	NR	NR	17.0%	84.9%	NR	
(64)	Sub-national	Florida, Louisiana, New York, Wisconsin	Jail	2003-2006	1.3%	1.4%	NR	NR	NR	NR	NR	
(65)	Sub-national	North Carolina	Prison	2004-2006	3.2%	7.4%	NR	NR	NR	NR	NR	
(66)	National	NA	Correctional facility	2007	0.9%	1.0%	NR	NR	NR	NR	NR	

Study Data					HIV prevalence		HBV prevalence		PWID HCV prevalence		Coverage of HIV, HBV, HCV prevention & care	Comments
Ref	National or Sub-national	Subnational area	Facility Type	Year(s) of study	non-PWID HIV prevalence (%)	PWID HIV prevalence (%)	non-PWID HBV prevalence (%)	PWID HBV prevalence (%)	non-PWID anti-HCV prevalence (%)	PWID anti-HCV prevalence (%)		
(67)	Sub-national	Wisconsin	Prison	2014-2015	NR	NR	NR	NR	5.3%	51.8%	NR	
<b>Pooled prevalence ratio among PWID compared to non-PWID in North America</b>				2.9 (95%CI: 1.6-5.2; $p < 0.001$ ; $I^2$ : 96.3%)			Insufficient data		11.3 (95%CI: 6.3 – 20.3; $I^2$ : 96.4%)			
<b>WESTERN EUROPE</b>												
<b>England</b>												
(68)	Sub-national	County of Surrey	Prison	NR	NR	NR	NR	NR	NR	32.6%	NR	
<b>Germany</b>												
(69)	Sub-national	Berlin	Prison	1998-1999	NR	18.0%	NR	53.0%	NR	83.0%	Introduced counseling, NSP	
<b>Northern Ireland</b>												
(70)	National		Prison	2004	0.0%	0.0%	0.5%	2.8%	0.7%	2.8%	NR	
<b>Ireland</b>												
(71)	National	NA	Prison	2011	0.5%	6.0%	NR	NR	3.0%	41.5%	MMT: 13%	
<b>Italy</b>												
(72)	National	NA	Prisons	2001-2002	2.4%	18.2%	50.7%	57.1%	22.1%	74.7%	NR	
<b>Netherlands</b>												
(73)	Sub-national	Southern	Prison	2010	0.0%	0.0%	5.0%	42.1%	2.6%	40.5%	NR	Sample was male only
<b>Portugal</b>												
(74)	Sub-national	NR	Prisons	2005	5.7%	44.4%	NR	NR	3.5%	68.9%	NR	Sample was female only
<b>Scotland</b>												
(75)	National	NA	Prison	2010-2011	NR	NR	NR	NR	3.0%	53%	MMT: 57%	
<b>Spain</b>												
(76)	Sub-national	Alicante	Prison	2001	1.0%	53.2%	NR	NR	8.1%	92.7%	NR	
(77)	National	NA	Prisons	2008	NR	NR	1.8%	4.7%	6.0%	77.9%	Introduced MMT, NSP	

Ref	Study Data				HIV prevalence		HBV prevalence		PWID HCV prevalence		Coverage of HIV, HBV, HCV prevention & care	Comments
	National or Sub-national	Subnational area	Facility Type	Year(s) of study	non-PWID HIV prevalence (%)	PWID HIV prevalence (%)	non-PWID HBV prevalence (%)	PWID HBV prevalence (%)	non-PWID anti-HCV prevalence (%)	PWID anti-HCV prevalence (%)		
<b>Pooled prevalence ratio among PWID compared to non-PWID in Western Europe</b>					13.4 (95%CI: 5.0-35.9; $p < 0.001$ ; $I^2$ : 86.5%)		3.2 (95%CI: 0.9-11.4; $p = 0.07$ ; $I^2$ : 89.7%)		11.0 (95%CI 5.5 – 21.9; $p < 0.001$ ; $I^2$ : 96.9%)			
<b>WEST AND CENTRAL AFRICA</b>												
<b>Ghana</b>												
(78)	National	NA	Central Prisons	2004-2005	2.8%	11.4%	12.7%	49.3%	NR	NR	NR	
<b>Pooled prevalence ratio among PWID compared to non-PWID in West and Central Africa</b>					Insufficient Data		Insufficient Data		Insufficient Data			
<b>Global pooled prevalence ratio among PWID compared to non-PWID:</b>					6.0 (95%CI: 3.8, 9.4; $p < 0.001$ ; $I^2$ : 94.4%)		2.0 (95%CI: 1.5, 2.7; $p < 0.001$ ; $I^2$ : 90.5%)		8.1 (95%CI: 6.4, 10.4; $p < 0.001$ ; $I^2$ : 95.8%)			

Notes: Ref: Reference; NA: Not applicable; NR: Not reported; CDDC: Compulsory drug detention center; MMT: Methadone maintenance therapy; NSP: Needle and syringe exchange; ART: Antiretroviral therapy; VCT: Voluntary counseling and testing; \* excluded from meta-analysis to avoid over-counting

**Web Figure 2.** Meta-analysis of prevalence ratios of HCV and 95% confidence intervals from research in prisons and closed settings, comparing PWID prisoners to non-injecting prisoners. Note: Articles lacking HCV prevalence information for either PWID or their non-injecting counterparts were excluded from prevalence ratio estimates.



**Web Table 2.** Prevalence of HIV and viral hepatitis among sex workers in prison and other closed settings.

Ref	Study Data				SW HIV prevalence		SW HBV prevalence		SW HCV prevalence			Comments
	National or Sub-national	Sub-national area	Facility Type	Year(s) of data collection	non-SW HIV prevalence (%)	SW HIV prevalence (%)	non-SW HBV prevalence (%)	SW HBV prevalence (%)	non-SW anti-HCV prevalence (%)	SW anti-HCV prevalence (%)	Coverage of HIV, HBV, HCV prevention or care among SW	
<b>Middle East and North Africa</b>												
<b>Iran</b>												
(44)	Sub-national	Isfahan	Prison	2009	NR	NR	8.5%	3.4%	3.9%	24.1%	NR	Sample is female only
<b>Pooled prevalence ratio among SW compared to non-SW in Middle East and North Africa</b>					Insufficient Data		Insufficient Data		Insufficient Data			
<b>North America</b>												
<b>USA</b>												
(56)	Sub-national	Connecticut	Correctional facility	1994-1996	5.0%	14.8%	NR	NR	NR	NR	NR	Sample is female only
(59)	Sub-national	King County, Washington	Jails	1998-2002	0.5%	2.8%	NR	NR	NR	NR	NR	Sample is female PWID
(59)	Sub-national	King County, Washington	Jails	1998-2002	1.9%	6.9%	NR	NR	NR	NR	NR	Sample is male PWID
(79)	Sub-national	Los Angeles	Jail	2000-2006	0.9%	2.0%	NR	NR	NR	NR	NR	Sample is female only
(65)	Sub-national	North Carolina	Prison	2004-2006	2.2%	5.6%	NR	NR	NR	NR	NR	
<b>Pooled prevalence ratio among SW compared to non-SW in North America</b>					2.7 (95%CI: 2.2-3.2; p<0.001; I <sup>2</sup> : 0.0%)		Insufficient Data		Insufficient Data			
<b>West and Central Africa</b>												
<b>Ghana</b>												
(78)	National	NA	Central Prisons	2004-2005	5.6%	11.0%	24.9%	37.0%	NR	NR	NR	Sample is male and female combined
<b>Pooled prevalence ratio among SW compared to non-SW in West and Central Africa</b>					Insufficient Data		Insufficient Data		Insufficient Data			
<b>Pooled prevalence ratio among SW compared to those not engaged in sex work</b>					2.6 (95%CI: 2.2-3.1; p<0.001 I <sup>2</sup> : 0.0%)		Insufficient data		Insufficient data			

Notes: Ref: Reference; NA: Not applicable; NR: Not reported

**Web Table 3.** Prevalence of HIV and viral hepatitis among men who have sex with men in prison and other closed settings.

Ref	Study Data				MSM HIV prevalence		MSM HBV prevalence		MSM HCV prevalence		Coverage of HIV, HBV, HCV prevention or care among MSM	Comments
	National or Sub-national	Sub-national area	Facility Type	Year(s) of data collection	non-MSM HIV prevalence (%)	MSM HIV prevalence (%)	non-MSM HBV prevalence (%)	MSM HBV prevalence (%)	non-MSM anti-HCV prevalence (%)	MSM anti-HCV prevalence (%)		
<b>ASIA AND PACIFIC</b>												
<b>Australia</b>												
(3)	National	NA	Prison	2013	0.0%	0.0%	18.0%	0.0%	30.6%	0.0%	NR	
<b><i>Pooled prevalence ratio among MSM compared to men not reporting same sex practices in Asia and Pacific</i></b>					<i>Insufficient data</i>		<i>Insufficient data</i>		<i>Insufficient data</i>			
<b>EAST AND SOUTHERN AFRICA</b>												
<b>Malawi</b>												
(80)	National		Central Prisons	2011	40.0%	57.0%	NR	NR	NR	NR	NR	
(80)	National		Mid-sized Prisons	2011	23.0%	16.0%	NR	NR	NR	NR	NR	
(80)	National		Small size Prisons	2011	10.0%	37.0%	NR	NR	NR	NR	NR	
<b><i>Pooled prevalence ratio among MSM compared to men not reporting same sex practices in East and Southern Africa</i></b>					<i>1.7 (95%CI: 0.7-4.0; p=0.65; I<sup>2</sup>: 64.8%)</i>		<i>Insufficient data</i>		<i>Insufficient data</i>			
<b>EASTERN EUROPE CENTRAL ASIA</b>												
<b>Bosnia and Herzegovina</b>												
(17)	Sub-national	Zenica	High Security Penitentiary	2013	NR	NR	NR	NR	15.72%	44.44%	NR	
<b><i>Pooled prevalence ratio among MSM compared to men not reporting same sex practices in Eastern Europe Central Asia</i></b>					<i>Insufficient data</i>		<i>Insufficient data</i>		<i>Insufficient data</i>			
<b>LATIN AMERICA &amp; CARIBBEAN</b>												
<b>Brazil</b>												
(23)	Sub-national	Sao Paulo	Prison	2003	5.4%	100.0%	NR	NR	8.4%	100.0%	NR	
(27)	Sub-national	Mato Grosso do Sul	Prison	2009	NR	NR	NR	NR	4.5%	5.1%	NR	



Ref	Study Data				MSM HIV prevalence		MSM HBV prevalence		MSM HCV prevalence		Coverage of HIV, HBV, HCV prevention or care among MSM	Comments
	National or Sub-national	Sub-national area	Facility Type	Year(s) of data collection	non-MSM HIV prevalence (%)	MSM HIV prevalence (%)	non-MSM HBV prevalence (%)	MSM HBV prevalence (%)	non-MSM anti-HCV prevalence (%)	MSM anti-HCV prevalence (%)		
(29)	Sub-national	Sergipe	Prison	2009-2010	NR	NR	NR	NR	22.8%	0.0%	NR	
(28)	Sub-national	Mid-West (Mato Grosso do Sul)	Prison	2013-2014	2.7%	2.6%	NR	NR	NR	NR	NR	
<b>Jamaica</b>												
(81)	Sub-national	NR	Max Security Correctional Center	2006	2.0%	25.0%	NR	NR	NR	NR	NR	
<b>Pooled prevalence ratio among MSM compared to men not reporting same sex practices in Latin America and Caribbean</b>					12.8 (95%CI: 7.5-21.9; $p<0.001$ ; $I^2$ : 87.0%)			Insufficient data		1.4 (95%CI: 0.3-7.4; $p=0.73$ ; $I^2$ : 89.0%)		
<b>MIDDLE EAST AND NORTH AFRICA</b>												
<b>Iran</b>												
(42)	Sub-national	Tehran	Prison	2001-2002	NR	NR	NR	NR	78.0%	79.2%	NR	Sample is PWID
(47)	National	NA	Prison	2003	6.8%	2.6%	NR	1.7%	NR	52.0%	NR	
(50)	Sub-national	Sari	CDDC	2001-2003	NR	NR	NR	NR	34.7%	62.5%	NR	Sample is people who use drugs
(48)	Sub-national	Tehran	Prison	2013-2014	NR	3.6%	NR	NR	NR	NR	NR	
<b>Pooled prevalence ratio among MSM compared to men not reporting same sex practices in Middle East and North Africa</b>					Insufficient data			Insufficient data		Insufficient data		
<b>NORTH AMERICA</b>												
<b>USA</b>												
(58)	Sub-national	NYC	Jail	2006	5.0%	34.0%	NR	NR	NR	NR	NR	
(59)	Sub-national	King County, Washington	Jail	1998-2002	1.6%	18.2%	NR	NR	NR	NR	NR	Sample is PWID

Ref	Study Data				MSM HIV prevalence		MSM HBV prevalence		MSM HCV prevalence		Coverage of HIV, HBV, HCV prevention or care among MSM	Comments
	National or Sub-national	Sub-national area	Facility Type	Year(s) of data collection	non-MSM HIV prevalence (%)	MSM HIV prevalence (%)	non-MSM HBV prevalence (%)	MSM HBV prevalence (%)	non-MSM anti-HCV prevalence (%)	MSM anti-HCV prevalence (%)		
(61)	Sub-national	California	Correctional facility	NR	NR	NR	NR	NR	32.3%	50.0%	NR	
(82)	Sub-national	Los Angeles	Jail	2000-2005	NR	13.4%	NR	NR	NR	NR	36% of MSM tested for STI/HIV	Sample is MSM
(64)	Sub-national	Florida, Louisiana, New York, Wisconsin	Jail	2003-2006	0.8%	7.0%	NR	NR	NR	NR	NR	
(65)	Sub-national	North Carolina	Prison	2004-2006	3.2%	29.9%	NR	NR	NR	NR	NR	
(66)	National	NA	Correctional facility	2007	0.8%	5.2%	NR	NR	NR	NR	NR	
<b>Pooled prevalence ratio among MSM compared to men not reporting same sex practices in North America</b>					8.0 (95%CI: 6.8-9.5; p<0.001; I <sup>2</sup> : 36.4%)			Insufficient data		Insufficient data		
<b>WESTERN EUROPE</b>												
<b>Ireland</b>												
(71)	National	NA	Prison	2011	1.4%	20.0%	NR	NR	12.5%	6.7%	NR	
<b>Italy</b>												
(72)	National	NA	Prison	2001-2002	2.4%	50.0%	50.7%	50.0%	22.1%	16.7%	NR	
<b>Netherlands</b>												
(73)	Sub-national	Southern	Prison	2010	0.0%	0.0%	NR	NR	NR	NR	NR	
<b>Pooled prevalence ratio among MSM compared to men not reporting same sex practices in Western Europe</b>					18.2 (95%CI: 8.7-37.8; p<0.001; I <sup>2</sup> : 99.9%)			Insufficient data		Insufficient data		
<b>WEST AND CENTRAL AFRICA</b>												
<b>Ghana</b>												
(78)	National	NA	Central Prisons	2004-2005	4.6%	8.9%	19.4%	40.2%	NR	NR	NR	
<b>Nigeria</b>												
(83)	Sub-national	Nasarawa State	Prison	2007	14.9%	43.8%	19.0%	56.3%	12.3%	12.5%	NR	

Ref	Study Data				MSM HIV prevalence		MSM HBV prevalence		MSM HCV prevalence		Coverage of HIV, HBV, HCV prevention or care among MSM	Comments
	National or Sub-national	Sub-national area	Facility Type	Year(s) of data collection	non-MSM HIV prevalence (%)	MSM HIV prevalence (%)	non-MSM HBV prevalence (%)	MSM HBV prevalence (%)	non-MSM anti-HCV prevalence (%)	MSM anti-HCV prevalence (%)		
<i>Pooled prevalence ratio among MSM compared to men not reporting same sex practices in West and Central Africa</i>					<i>Insufficient data</i>		<i>Insufficient data</i>		<i>Insufficient data</i>			
<b><i>Global pooled prevalence ratio among MSM compared to men not reporting same sex practices</i></b>					<b><i>5.3 (95%CI: 3.5-7.9; p&lt;0.001; I<sup>2</sup>: 91.6%)</i></b>		<b><i>2.1 (95%CI: 1.4, 3.0;p&lt;0.001 I<sup>2</sup>: 53.8%)</i></b>		<b><i>1.5 (95%CI: 1.0-2.2; p=0.05; I<sup>2</sup>: 72.0%)</i></b>			

Notes: Ref: Reference; NA: Not applicable; NR: Not reported; CDDC: Compulsory Drug Detention Centers

**Web Table 4.** Prevalence of HIV, HBV and HCV among transgender women in prisons and closed settings.

Ref	Study Data				TGW HIV prevalence		TGW HBV prevalence		TGW HCV prevalence		Coverage of HIV, HBV, HCV prevention and care among TGW	Comments
	National or Sub-national	Sub-national area	Facility Type	Year(s) of data collection	non-TGW prevalence (%)	TGW prevalence (%)	non-TGW prevalence (%)	TGW HIV prevalence (%)	non-TGW prevalence (%)	TGW prevalence (%)		
<b>LATIN AMERICA &amp; CARIBBEAN</b>												
<b>Argentina</b>												
(84)	National	NA	Federal prison	2011	NR	54.0%	NR	NR	NR	NR	NR	
<b>NORTH AMERICA</b>												
<b>USA</b>												
(60)	Sub-national	Massachusetts	County Correctional Facility	2009-2011	NR	0.0%	NR	NR	NR	NR	NR	
<b><i>Pooled prevalence ratio among TGW compared to those who are not identified as transgender women</i></b>					<i>Insufficient data</i>		<i>Insufficient data</i>		<i>Insufficient data</i>			

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