



E. Bravo-Garcia¹, C. Magis-Rodriguez¹, H. Ortiz-Perez²

¹ Universidad Nacional Autónoma de México, Facultad de Medicina. Departamento de Salud Pública, México.

² Universidad Autónoma Metropolitana - Xochimilco, Departamento de Atención a la Salud, México.

Programme Number: EPC052

Background

- Incidence is the best indicator to understand the evolution of an epidemic and identify the most affected groups.
- The objective was to estimate the annual incidence of HIV in the adult population and its distribution among key populations in Mexico (2022).

Methods

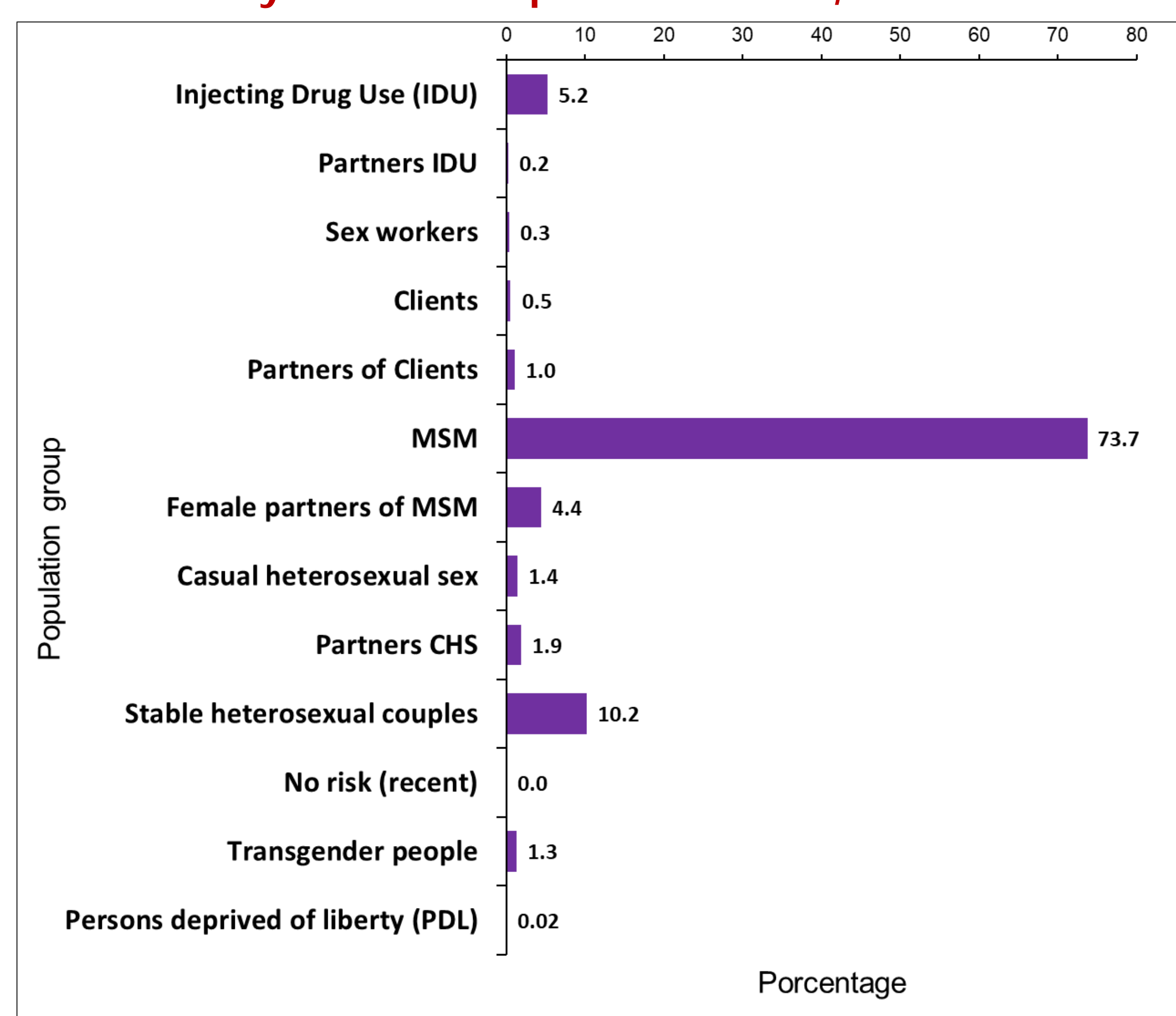
- The UNAIDS Modes of Transmission (MoT) model was applied, using the following sources of information:
 - National surveys (Census 2020, ENDISEG 2019, ENCODAT 2016-2017)
 - HIV prevalence data (Censida)
 - Epidemiological records from health institutions and other additional sources.

Results

- An estimated 313,000 adults aged 15-49 years were living with HIV (prevalence 0.42%); with an annual incidence of 31 cases per 100 thousand adults (21,300 new HIV cases) (fig 1).
- 87% of these new cases were concentrated in key populations and their partners (fig 1).
- Most affected groups: Men who have sex with men (73.7%) and their female partners (4.4%); injecting drug users and their partners (5.4%); sex workers, partners and clients (1.5%); trans people (1.3%); and persons deprived of liberty (0.02%) (fig 2).

- The remaining HIV cases corresponded to low-risk heterosexual population (10.2%) and people who have heterosexual casual sex and their partners (3.3%) (fig 2).

Figure 2. Distribution of new HIV infections by mode of exposure Mexico, 2022



Conclusions

- MoT provided an estimate of HIV incidence and its distribution among groups by mode of transmission, confirming its high concentration in key populations.
- Consequently, the best alternative is to prioritize prevention actions in these populations (timely detection of HIV and STIs, condom use, PrEP and PEP). If not, Mexico will hardly meet the 95-95-95 goals by 2030.

Figure 1. Spreadsheet of the MoT model with results. Mexico, 2022

COUNTRY, YEAR	Population	HIV prev (%)	Incidence range		Transmission probability per act of exposure			Incidence	% of incidence	Incidence per 100,000
	Adults 15-49	Adults 15-49	Lower	Upper	Male -->	Female -->	IDU			
MEXICO, 2022	69,000,000	0.42%			0.001	0.00100	0.010			
Adult Risk Behaviour	Method 1: Percent of population with risk behaviour (%)		Method 2: Population with risk behaviour		Total number with risk behaviour	Prevalence of HIV (%)	Number HIV+	Incidence	% of incidence	Incidence per 100,000
	Male	Female	Male	Female						
Injecting Drug Use (IDU)			119,000	4,800	123,800	2.70%	3343	1,101	5.17	889
Partners IDU			59,500	2,400	61,900	1.35%	836	45	0.21	72
Sex workers			0	240,000	240,000	0.79%	1896	64	0.30	27
Clients			2,021,558		2,021,558	0.40%	8086	107	0.50	5
Partners of Clients			0	980,456	980,456	0.30%	2941	212	0.99	22
MSM			1,482,476	0	1,482,476	11.90%	176415	15,707	73.71	1,060
Female partners of MSM			0	202,156	202,156	6.00%	12129	931	4.37	460
Casual heterosexual sex			5,050,777	2,465,542	7,516,319	0.30%	22549	301	1.41	4
Partners CHS			2,697,115	1,304,272	4,001,387	0.30%	12004	399	1.87	10
Stable heterosexual couples			14,116,944	17,857,750	31,974,694	0.15%	47962	2,166	10.17	7
No risk (recent)			7,953,200	12,107,900	20,061,100	0.00%	0	0	0.00	0
Transgender people			0	123,000	123,000	18.30%	22509	272	1.27	221
Persons deprived of liberty (PDL)			199,430	11,724	211,154	1.00%	2112	4	0.02	2
TOTAL ADULT POPULATION	0.00	0.00			69,000,000	0.42%	312,782			
								21,309		31
								1,587	7.45	30

* Sexual acts are protected through condom use and injecting drug acts through the use of sterile injecting equipment