



## اپیدمیولوژی عفونت‌های منتقله از خون (در ایران و خراسان رضوی)

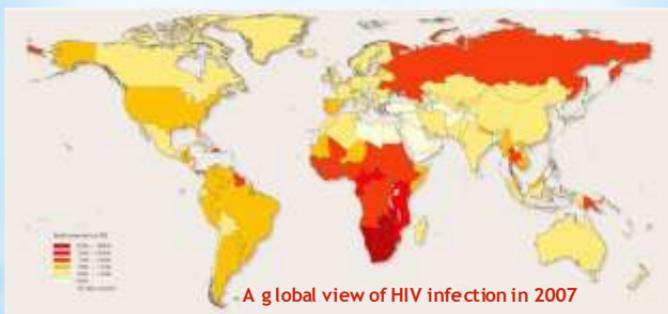
### بخش دوم = عفونت HIV و ایدز

مرکز تحقیقات عفونت‌های منتقله از خون  
سازمان جهاد دانشگاهی خراسان رضوی

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### Epidemiology of HIV infection



<http://www.who.int/hiv/facts/hiv2007/en/>

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## عفونت‌های منتقله از خون در اهداکنندگان خون ایران



**Table 1.** Prevalence of viral markers among Iranian voluntary blood donors (Iranian Blood Transfusion Organization, 2005)

	Before 1990 (%)	2001 (%)	2002 (%)	2004 (%)	2005/2006 (%)
HBsAg	3.4	1.4	1.2	0.72	0.61
Anti-HCV	—	0.3	0.25	0.12	0.14
Anti-HIV	—	0.0018	0.009	0.005	0.005

\* All blood donated at IBTO has been screened for :

\* HBsAg 1974 (the date of establishment of IBTO)

\* HIV Ab 1990

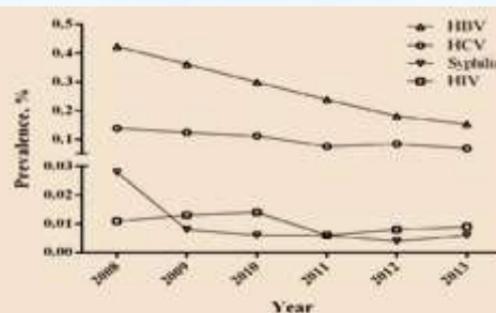
\* HTLV -1/2 Ab 1995

\* HCV Ab 1996

Rezvan H, et al. Transfusion-transmitted infections among multitransfused patients in Iran: a review. *Transfusion Medicine*, 2007, 17, 425-33



## عفونت‌های منتقله از خون در اهداکنندگان خون ایران



Keshvari M, et al. Prevalence and trends of transfusion-transmitted infections among blood donors in Tehran, Iran from 2008 to 2013. *Transfus Apher Sci* 2015



## عفونت‌های منتقله از خون در دریافت کنندگان خون ایران (بیماران تالاسمی)



**Table 2.** Prevalence of blood-borne infections in thalassemia patients

Reference	Location (city/area)	Total number tested	Anti-HCV, n (%)	Anti-HBV, n (%)	HbsAg, n (%)
Nikbak & Tolabadi (2001)	Tehran/capital	507	122 (24)	0	—
Kaderav et al (2001)	Sistanbush	147	40 (27.2)	0	—
Afshar et al. (2002)	Gilan/northern	95	23 (24.2)	0	1 (1.1)
Javaherchi et al. (2006)	Yazd	85	8 (9.4)	0	0
Khosrooee & Tahmasbi (1999)	Bushke/south	255	46 (18)	0	7 (0.8)
Amir & Koohofandi (2002)	Gilan/north	105	17 (6.5)	0	—
Rajabiyan et al. (1999)	Shahr-e-Kord/west	113	26 (23)	0	—
H. Abolghasemi	Tehran	900	105 (12)	0	3 (0.4)
Hospitalized data					
Jafroodi & Asadi (2006)	Gilan/north	327	131 (29)	—	—
Momenen et al. (2008)	Tehran	410	80 (19.6)	0	4 (1.0)
Kerman/west	100	18 (18.0)	0	8 (8)	
Qazvin/west	95	23 (25.3)	0	1 (1.1)	
Semnan/west	81	19 (24.4)	0	0	
Zanjan/west	46	1 (2.2)	0	0	
Total		3166	709 (22.4)	0	10 (0.4)

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Rezvan H, et al. Transfusion-transmitted infections among multitransfused patients in Iran: a review. *Transfusion Medicine*, 2007, 17, 425-33



## عفونت‌های منتقله از خون در دریافت کنندگان خون ایران (بیماران هموفیلی و دیالیزی)



**Table 4.** Prevalence of blood-borne viruses in hemophilia patients

Reference	Location (city/area)	Total number tested	Anti-HCV, n (%)	Anti-HBV, n (%)	HbsAg, n (%)
Afshar et al. (2001)	Tehran/capital	178	100 (60.2)	4 (2.2)	3 (2.0)
Karimi et al. (2002)	Sistanbush	285	47 (16)	0	2 (0.7)
Touhi et al. (2006)	Azadshahr/northwest	162	83 (51)	1 (0.9)	3 (2.7)
Javaherchi et al. (2006)	Yazd	74	36 (48.6)	1 (1.4)	1 (1.4)
Mamnoon-Ghamsari et al. (2002)	Gilan/north	101	72 (71.3)	0	27 (26.7)
Khosrooee & Tahmasbi (1999)	Bushke/south	31	13 (41.9)	0	2 (6.5)
Total		839	357 (42.2)	6 (0.7)	40 (4.7)

**Table 5.** Prevalence of blood-borne infections in hemodialysis patients

Reference	Location (city/area)	Total number	Anti-HCV, n (%)	Anti-HBV, n (%)	HbsAg, n (%)
Nemat-Neshaieh et al. (1997)	Tehran/capital	206	26 (23)	—	—
Afshar et al. (2002)	Qazvin/west	67	16 (23.9)	—	—
Rao-Jakob & Khajehoddin (1996)	182	10 (5.5)	—	—	
Khosrooee & Tahmasbi (1999)	Bushke/south	104	3 (2.9)	0	1 (1)
Amir & Koohofandi (2002)	Gilan/north	93	32 (35.0)	—	—
Amir-Mohammadi et al. (2003)	Gilan/north	298	74 (24.8)	—	—
Total		1011	211 (21)	0	—

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Rezvan H, et al. Transfusion-transmitted infections among multitransfused patients in Iran: a review. *Transfusion Medicine*, 2007, 17, 425-33



# اپیدمیولوژی HIV در ایران

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## عفونت HIV در ایران

Location	Incidence (95% UI)		Prevalence (95% UI)			
	1990	2000	1990	2000		
Eastern Mediterranean Region	0.0 (0.0-0.0)	0.7 (0.4-0.7)	0.7 (0.5-0.9)	0.1 (0.1-0.2)	0.4 (0.3-0.5)	1.6 (1.3-1.9)
<b>Iran</b>	<b>2.0 (2.0-2.0)</b>	<b>8.4 (6.8-10.0)</b>	<b>8.4 (6.8-10.0)</b>	<b>0.0 (0.0-0.0)</b>	<b>0.0 (0.0-0.0)</b>	<b>1.8 (1.6-2.0)</b>

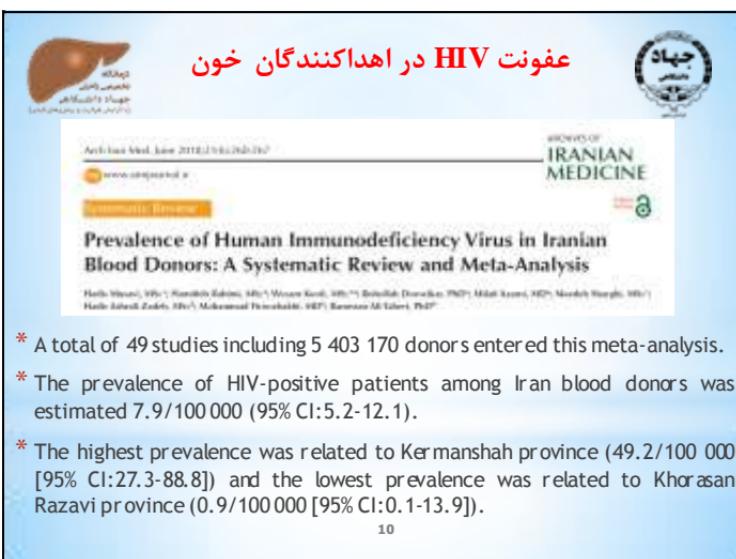
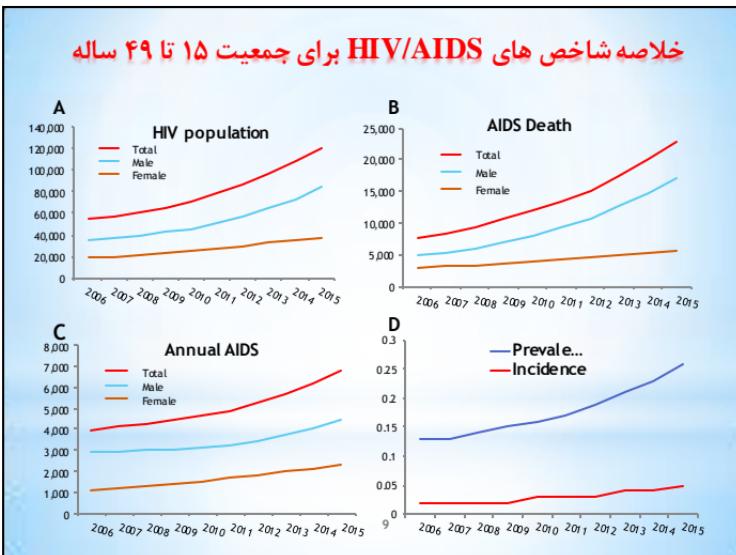
Table 1: Rates and 95% uncertainty levels (UI) of age-standardized incidence and prevalence of HIV/AIDS per 100,000 population. Region estimates observed in 1990, 2000, and 2015, and expected in 2015 based on Socio-demographic Index (SDI).

Location	1990		2015		Expected rate based on SDI (SDI)
	Rate (95% UI)	Rate (95% UI)	Observed rate (95% UI)	Expected rate based on SDI (SDI)	
Eastern Mediterranean Region	0.3 (0.2-0.4)	1.5 (0.3-2.2)	1.8 (1.4-2.5)	38.3 (6.5)	
<b>Iran</b>	<b>0.1 (0.0-0.1)</b>	<b>0.4 (0.3-0.5)</b>	<b>0.7 (0.5-1.0)</b>	<b>23.3 (3.7)</b>	

Table 2: Prevalence and 95% uncertainty levels (95% UI) for HIV/AIDS deaths. THL = Total deaths and DALY = disability-adjusted life years.

Location	Deaths of HIV/AIDS due to AIDS		Deaths of HIV/AIDS VLDS due to AIDS		Deaths of HIV/AIDS VLDS due to non-AIDS		Deaths of HIV/AIDS DALYs due to AIDS	
	Deaths in 1990	Deaths in 2015	Deaths in 1990	Deaths in 2015	Deaths in 1990	Deaths in 2015	Deaths in 1990	Deaths in 2015
Eastern Mediterranean Region	12.1 (0.1-79.0)	18.8 (1.6-114.4)	12.5 (1.6-13.9)	17.3 (1.6-22.0)	71.9 (6.6-130.7)	12.3 (1.6-17.6)	70.1 (6.8-78.5)	17.7 (1.2-23.8)
<b>Iran</b>	<b>0.0 (0.0-0.0)</b>	<b>0.0 (0.0-0.0)</b>	<b>0.0 (0.0-0.0)</b>	<b>0.0 (0.0-0.0)</b>	<b>0.0 (0.0-0.0)</b>	<b>0.0 (0.0-0.0)</b>	<b>0.0 (0.0-0.0)</b>	<b>0.0 (0.0-0.0)</b>

WHO 2015 Eastern Mediterranean Region HIV/AIDS Collaborators. Trends in HIV/AIDS morbidity and mortality in Eastern Mediterranean countries, 1990-2015: findings from the Global Burden of Disease 2015 study. Int J Public Health, 2017.



 عفونت HIV در معتادان تزریقی



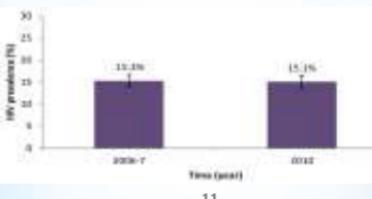
OPEN ACCESS Freely available online

PLOS MEDICINE

## HIV among People Who Inject Drugs in the Middle East and North Africa: Systematic Review and Data Synthesis

Githa R. Muntaa<sup>1,2\*</sup>, Helen A. Weiss<sup>3</sup>, Sara L. Thomas<sup>4</sup>, Susanne Riems<sup>5</sup>, Hamidreza Setayesh<sup>6</sup>, Gabriele Redner<sup>7</sup>, Iris Semini<sup>8</sup>, Oussama Tamli<sup>9</sup>, Francesca Ayodeji Akala<sup>10</sup>, David Wilson<sup>11</sup>, Latif J. Abu-Rashid<sup>1,2,4</sup>

\* Iran is the only country with conclusive evidence for an established concentrated epidemic at the national level (about 15%).



Time (year)	HIV prevalence (%)
2006-7	15.1%
2012	15.1%

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 عفونت HIV در معتادان تزریقی



STI

## HIV prevalence and risk behaviours among people who inject drugs in Iran: the 2010 National Surveillance Survey

Rasoulieh Khajehbakhtani, Mehdi Ossadi, Leyla Sajadi, et al.  
Sex: Transm Infect published online September 14, 2013  
doi: 10.1136/sextrans-2013-051204

- \* Eligible participants were men ≥18 years of age, who had injected drugs at least once during the past 12 months.
- \* 2290 PWID from 10 provinces:
  - \* The overall 15.2% (95% CI 9.7%-23.1%).
  - \* The highest 31.9%
  - \* The lowest 2.2%
- \* Over the past month, among those who had injected drugs:
  - \* 36.9% had used a non-sterile needle
  - \* 12.6% had practiced shared injection.

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## عفونت HIV در Sex workers



- \* One of the two studies was conducted in 14 cities of Iran and the other in Shiraz city.
- \* Their sample size were respectively 872 and 278.
- \* HIV prevalence ranged between 5.4% and 7.4% among FSWs in Iran.

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Safari Faramani R, et al. HIV prevalence among female sex workers in Iran: A systematic review. BMJ Open 2017;7(0):A1-A78.



## اپیدمیولوژی عفونت HIV در ایران



Population	HIV infection (%)
Blood donors	0.0079
IDUs	15.2
FSWs	5.4-7.4

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**عفونت HIV در جمعیت عمومی مشهد**

Banifazlpor J Microbiol. 2017 March; 0(0):e004855.  
Published online 2017 February 8.  
doi:10.5812/jm.4855.  
Research Article

No Evidence of HIV Infection Among the General Population of Mashhad, Northeast of Iran

Rahele Moll,<sup>1</sup> Samaz Ahmadi Chezelshtchi,<sup>1</sup> Arman Mosaraf,<sup>1</sup> and Mohammad Reza Hedayati-Moghadam<sup>1\*</sup>

**Methods:** This cross sectional study was performed since May to September 2009 in Mashhad, Iran. A total of 1,678 individuals ranged 1-90 years of age were selected randomly from different geographical regions of the city, proportionate to sex and age distribution of the population according to 2006 census. Enzyme-linked immunosorbent assay (ELISA) was used to screen anti-HIV.

**Results:** A total of 1,651 serum samples were analyzed for anti-HIV antibodies. A total number of 751 of participants were males (45.5%) and 900 were females (54.5%). The mean ages were  $27.9 \pm 19.0$  and  $30.0 \pm 16.6$  years, respectively. Anti-HIV seropositivity was detected in 12 cases ( $0.7\%$ ; 95% CI: 0.38–1.27 percent). No samples were further confirmed by WB technique, thus the overall prevalence of HIV infection was  $0.95\%$  (1: 0.00–0.22%). No case with co-infection of HBV, HCV, or HTLV-I was observed in individuals who showed seropositivity for HIV antibodies.

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