Supplementary Information

The distribution of new HIV infections by mode of exposure in Morocco

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1. FURTHER DETAILS ON DATA REVIEW

The following material describes the different data sources and the details of the search criteria for the comprehensive review of HIV in the Middle East and North Africa (MENA) undertaken as part of the MENA HIV/AIDS Epidemiology Synthesis Project.[1, 2] The Synthesis Project was the main source of data for our study. The project identified and retrieved data through an extensive search of evidence on HIV and related outcomes over a span of nearly a decade so far. The sources of data included:

1. Scientific literature search of PubMed (Medline) using a strategy with both free text and MeSH headings, and with no language or year limitations. The following set of criteria were used as part of the search of PubMed:

- Studies of HIV infectious spread in its different modes of transmission under the strategy of ("HIV Seropositivity" OR "HIV" OR "HIV Infections") AND ("Middle East" OR "Islam" OR "Arabs" OR "Arab World" OR "Africa, Northern" OR "Mauritania" OR "Sudan" OR "Somalia" OR "Djibouti" OR "Pakistan").
- Studies of sexual behavior and levels of risk behavior under the strategy of ("Sexual Behavior" OR "Sexual Partners" OR "Sexual Abstinence" OR "Unsafe Sex" OR "Sexology" OR "Reproductive Behavior" OR "Safe Sex" OR "Condoms" OR "Sex") AND ("Middle East" OR "Islam" OR "Arabs" OR "Arab World" OR "Africa, Northern" OR "Mauritania" OR "Sudan" OR "Somalia" OR "Djibouti" OR "Pakistan").
- Studies of herpes simplex virus type 2 sero-prevalence under the strategy of ("Herpesvirus 2, Human" OR "Herpes Genitalis") AND ("Middle East" OR "Islam" OR "Arabs" OR "Arab World" OR "Africa, Northern" OR "Mauritania" OR "Sudan" OR "Somalia" OR "Djibouti" OR "Pakistan").
- Studies of human papillomavirus and cervical cancer under the strategy of "Papillomavirus Infections" OR "Uterine Cervical Neoplasms") AND ("Middle East" OR "Islam" OR "Arabs" OR "Arab World" OR "Africa, Northern" OR "Mauritania" OR "Sudan" OR "Somalia" OR "Djibouti" OR "Pakistan").

- Studies of bacterial sexually transmitted infections under the strategy of ("Chlamydia" OR "Chlamydia Infections" OR "Chlamydia trachomatis" OR "Gonorrhea" OR "Neisseria gonorrhoeae" OR "Syphilis" OR "Vaginosis, Bacterial" OR "Pelvic Inflammatory Disease") AND ("Middle East" OR "Arabs" OR "Islam" OR "Arab World" OR "Africa, Northern" OR "Mauritania" OR "Sudan" OR "Somalia" OR "Djibouti" OR "Pakistan").
- Studies of hepatitis C virus under the strategy of ("Hepatitis C" OR "Hepatitis C Antibodies" OR "Hepatitis C Antigens") AND ("Middle East" OR "Islam" OR "Iran" OR "Arabs" OR "Arab World" OR "Africa, Northern" OR "Mauritania" OR "Sudan" OR "Somalia" OR "Djibouti" OR "Pakistan").

2. Peer-reviewed publications published in local and regional research journals not indexed in PubMed.

3. Country-level reports and databases, governmental and non-governmental organizations' studies and publications, as well as other institutional reports related to HIV and sexually transmitted infections (STIs) in MENA. These include also countries' case notification reports.

4. International organizations' reports and databases related to HIV and other STIs. Among the organizations from which we obtained reports and data are UNAIDS, WHO, World Bank, United Nations Children's Fund (UNICEF), United Nations Office on Drugs and Crime (UNODC), International Agency for Research on Cancer (IARC), International Organization for Migration (IOM), International Centre for Prison Studies (ICPS), Office of the UN High Commissioner for Refugees (UNHCR), Population Reference Bureau (PRB) and Family Health International (FHI). The US Census Bureau database of HIV/AIDS, a compilation of global HIV prevalence studies irrespective of collection methodology, was searched,[3] so was the WHO/EMRO HIV testing database.[4] Demographic and Health Survey (DHS) reports of MENA countries were also reviewed.

5. Consultations with key experts, public health officials, researchers, and academics in the region and beyond.

Studies and data sources were retrieved through the above searches and screened for relevance. The criteria for inclusion were the presence of a biological measurement of HIV or STIs or any related sexual or injecting behavioral data. For further reassurance that no relevant study was missed as part of the MENA comprehensive search, we repeated the Medline search for HIV infection using criteria specific to Morocco.

2. MODES OF TRANSMISSION (MoT) MODEL PARAMETRIZATION

The main sources of data for the parameter choices were:

1. The review of HIV epidemiological evidence in Morocco.
2. The Synthesis Project review of HIV epidemiology in other MENA countries.[1, 2] This latter review is referred to in the parameters tables as 'SMENA: Studies in other MENA countries'.
3. Global HIV data, referred to as 'GA: Global analyses'.
4. Consensus agreement following discussions among HIV/AIDS stakeholders in Morocco and the research team during the national MoT workshop that was held in Morocco during the course of the MoT work, referred to as 'CA'.

The tables below describe the different parameters used in the MoT model, their values, the justifications and/or calculations behind their choices, and the sources of data used for their estimation. In many cases, the final parameter value used was a representative or reasonable value based on a combination of the above data sources.

2.1 Biological parameters

Table S2.1 Biological HIV transmission parameters of the MoT model

Parameter	Value	Justification	Reference
Transmission probability per HIV exposure from needle sharing	0.008	Systematic review and meta-analysis of HIV transmission probability per coital act in observational studies	[5, 6]
Transmission probability per non-commercial vaginal sex act	0.0034	Systematic review and meta-analysis of HIV transmission probability per coital act in observational studies	[6, 7]
Transmission probability per commercial vaginal sex act	0.0051	Systematic review and meta-analysis of HIV transmission probability per coital act in observational studies	[6, 7]
Transmission probability per anal sex act	0.01	Systematic review and meta-analysis of HIV transmission probability per coital act in observational studies	[6-8]
Reduction in female to male transmission probability per vaginal sex act due to male circumcision	60%	Finding of three clinical trials	[9-11]
Prevalence of male circumcision	99%	More than 99% of the population of Morocco practice male circumcision as a religious obligation and based on CA	
Transmission probability per HIV exposure from medical injections	0.004	Systematic review and meta-analysis of HIV transmission probability per injection in observational studies	[5, 6]
Transmission probability per HIV exposure from blood transfusions	0.925	Systematic review and meta-analysis of HIV transmission probability per transfusion in observational studies	[5, 6]

MoT, modes of transmission; CA, consensus agreement in the national MoT workshop.

2.2 Demographic attributes for Morocco

Table S2.2 Demographic attributes for Morocco

Parameter	Value	Reference
Total population size in Morocco (TP)	29,891,708	[12]
Total 15-49 yrs. adult population size (TAP)	17,829,000	[13]
Male (TMP)	8,914,500	[13]
Female (TFP)	8,914,500	[13]
Adult (15-49 yrs.) HIV prevalence	0.11%	[14, 15]

2.3 Risk group size estimates

Table S2.3 Risk group size estimate for each HIV risk group in the Morocco MoT model

Population	**Prevalence of risk**			**Population size estimate**		
	Total (TAP)	Male (TMP)	Female (TFP)	Total (TAP)	Male (TMP)	Female (TFP)
IDUs	0.1%	0.19%	0.02%	18,500	16,576	1,924
Calculation	# IDUs/ TAP	(total # IDUs x (1-fraction of IDUs who are female))/ TMP	(# IDUs x fraction of IDUs who are female)/ TFP		Total # IDUs x (1-fraction of IDUs who are female)	Total # IDUs x fraction of IDUs who are female
Justification &/or reference	UNODC data[16]	Fraction of IDUs who are female: 10.4%[17]	Fraction of IDUs who are female: 10.4%[17]	UNODC data[16]	Fraction of IDUs who are female: 10.4%[17]	UNODC data[16]
Stable sexual partners of IDUs	0.05%	0.01%	0.09%	9,250	962	8,288
Calculation	(Fraction of the TMP who are stable sexual partners of IDUs + Fraction of the TFP who are stable sexual partners of IDUs) /2	Prevalence of IDU among females x fraction of IDUs who are in a stable sexual partnership	Prevalence of IDU among males x fraction of IDUs who are in a stable sexual partnership	# of males in a stable sexual partnership with IDUs + # of female in a stable sexual partnership with IDUs	# of female IDUs x fraction of IDUs who are in a stable sexual partnership	# of male IDUs x fraction of IDUs who are in a stable sexual partnership
Justification &/or reference		50% of IDUs are in a stable sexual partnership: RV based on SMENA,[1] on CA, and on GA	50% of IDUs are in a stable sexual partnership: RV based on SMENA,[1] on CA, and on GA		50% of IDUs are in a stable sexual partnership: RV based on SMENA,[1] on CA, and on GA	50% of IDUs are in a stable sexual partnership: RV based on SMENA,[1] on CA, and on GA
FSWs	0.375%	--	0.75%	66,859	--	66,859
Calculation	Half the prevalence of sex work among females			Prevalence of sex work among females x TFP		Prevalence of sex work among females x TFP
Justification &/or reference			Based on one study among hospital attendees,[18] in the intermediate to high range for available data in SMENA,[1] and based on CA			
Clients of FSWs	3.75%	7.5%	--	668,588	668,588	--
Calculation	Half of the fraction of males seeking FSWs			Fraction of males seeking FSWs x TMP	Fraction of males seeking FSWs x TMP	
Justification &/or reference		Based on CA				

Table S2.3 continued. Risk group size estimate for each HIV risk group in the Morocco MoT model

Population	Prevalence of risk			Population size estimate		
	Total (TAP)	Male (TMP)	Female (TFP)	Total (TAP)	Male (TMP)	Female (TFP)
Stable sexual partners of FSWs clients	1.96%	--	3.92%	349,671	--	349,671
Calculation	Half the fraction among females		Fraction of TFP who are married x fraction of the TMP seeking FSWs	Fraction of the TFP who are partners of FSWs clients x TFP		Fraction of the TFP who are partners of FSWs clients x TFP
Justification &/or reference			52.3% of women are married in Morocco[19]			
MSM	0.25%	0.5%	--	44,573	44,573	--
Calculation	Half the prevalence of MSM among males			Prevalence of MSM among males x TMP	Prevalence of MSM among males x TMP	
Justification &/or reference		RsV based on 3.7% of *sexually active youth <u>ever</u>* having anal sex with males,[20] and based on SMENA[1] and on CA.				
Stable female partners of MSM	0.05%	--	0.1%	8,915	8,915	
Calculation	Half the fraction of women who are partners of MSM			Fraction of females who are partners of MSM x TFP	Fraction of females who are partners of MSM x TFP	
Justification &/or reference			20% of MSM have female partners (RV based on SMENA[1] and on CA) and 0.5% of males are MSM			
People engaged in casual HS	5.75%	10%	1.5%	1,025,168	891,450	133,718
Calculation	(Prevalence of casual HS among males + prevalence of casual HS among females) /2			# of males engaged in casual HS + # of females engaged in casual HS	Prevalence of casual HS among males x TMP	Prevalence of casual HS among females x TFP

Table S2.3 continued. Risk group size estimate for each HIV risk group in the Morocco MoT model

Population	**Prevalence of risk**			**Population size estimate**		
	Total (TAP)	Male (TMP)	Female (TFP)	Total (TAP)	Male (TMP)	Female (TFP)
Justification &/or reference		RsV based on the measures of sexual behavior among the general population and on CA	15% of the prevalence of casual HS among males, based on the study among youth where 36% of males and 5.2% of females declared having ever had vaginal sex[20]			
Stable partners of people engaged in casual HS	2.54%	0.075%	5%	452,411	6,686	445,725
Calculation	(Fraction of males who are partners of casual HS people + Fraction of females who are partners of casual HS people) / 2	Fraction of females engaged in casual HS x fraction of them having steady/spousal partners	Fraction of males engaged in casual HS x fraction of them having steady/spousal partners		Fraction of males who are stable partners of people engaged in casual HS x TMP	Fraction of females who are partners of people engaged in casual HS x TFP
Justification &/or reference		Assuming a RsV of 5% of females engaged in casual HS having steady/spousal partners and based on CA	Assuming a RsV of 50% of males engaged in casual HS having steady/spousal partners and based on CA			
People with no risk HS this year	27.5%	20%	35%	4,902,975	1,782,900	3,120,075
Calculation	(Prevalence of no risk HS in males + prevalence of no risk HS among females) /2			# of males with no risk HS + # females with no risk HS	Fraction of the TMP with no risk HS x TMP	Fraction of the TFP with no risk HS x TFP
Justification &/or reference		CA and RsV based on levels of reported sexual activity among youth and marriage rates in Morocco[20]	CA and RsV based on levels of reported sexual activity among youth and marriage rates in Morocco[20]			
People with low risk HS	57.67%	61.73%	53.61%	10,282,092	5,502,766	4,779,326

Table S2.3 continued. Risk group size estimate for each HIV risk group in the Morocco MoT model

Population	**Prevalence of risk**			**Population size estimate**		
	Total (TAP)	Male (TMP)	Female (TFP)	Total (TAP)	Male (TMP)	Female (TFP)
Calculation				# of males engaged in low risk HS + # of females engaged in low risk HS	Prevalence of low risk HS among males x TMP	Prevalence of low risk HS among females x TFP
Justification &/or reference	Those who are not in any of the previous risk group categories nor their sexual partners/clients	Those who are not in any of the previous risk group categories nor their sexual partners/clients	Those who are not in any of the previous risk group categories nor their sexual partners/clients			
Population at risk of medical injections	100%	100%	100%	17,829,000	8,914,500	8,914,500
Justification &/or reference	Assuming all the adult population is at risk	Assuming all the adult population is at risk	Assuming all the adult population is at risk	Assuming all the adult population is at risk	Assuming all the adult population is at risk	Assuming all the adult population is at risk
Population at risk of blood transfusions	0.2%	0.2%	0.2%	35,658	17,829	17,829
Calculation	(# of blood donations per year / # of transfusions per person)/ TP	(# of blood donations per year / # of transfusions per person)/ TP	(# of blood donations per year / # of transfusions per person)/ TP	# of blood donations per year /# of transfusions per person	(# of blood donations per year /# of transfusions per person)/2	(# of blood donations per year /# of transfusions per person)/2
Justification &/or reference	203,000 blood donations per year[21] Average of 3 transf. per person	203,000 blood donations per year[21] Average of 3 transf. per person	203,000 blood donations per year[21] Average of 3 transf. per person			

MoT, modes of transmission; CA, consensus agreement in the national MoT workshop; FSWs, female sex workers; HS, heterosexual sex; GA, global analyses; IDUs, injecting drug users; MSM, men who have sex with men; RV, representative value; RsV, reasonable value; TAP, total adult population (15-49 years); TFP, total adult female population (15-49 years); TMP, total adult male population (15-49 years); SMENA, studies in other Middle East and North Africa countries; UNODC, United Nations Office on Drugs and Crime.

2.4 HIV prevalence

Table S2.4 HIV prevalence for each HIV risk group in the Morocco MoT model

Population	Value	Justification	Reference
IDUs	2%	Representative value based on available point prevalence measures and on CA	Table 2 of [22]
Stable sexual partners of IDUs	1%	Half of the HIV prevalence among IDUs based on CA	
FSWs	2%	Representative value based on available point prevalence measures and on CA	Table 2 of [22]
Clients of FSWs	0.5%	Representative value based on available point prevalence measures among STD clinic attendees and on CA	Table 8 of [22]
Stable partners of clients of FSWs	0.25%	Half of the HIV prevalence among clients based on CA	
MSM	2%	Representative value based on available point prevalence measures and on CA	Table 2 of [22]
Females partners of MSM	1%	Half of the HIV prevalence among MSM	
People engaged in casual HS	0.22%	Twice the prevalence of HIV in the adult population in Morocco and based on available prevalence measures among different general population groups and on CA	Table 6 of [22]
Stable partners of people engaged in casual HS	0.11%	Half of the HIV prevalence among people engaged in casual HS	
People engaged in low risk HS	0.082%	Average of HIV prevalence among ANC attendees and blood donors, and based on CA.	Table 6 of [22]
People with no risk HS this year	0.03%	The value needed to achieve a 0.1% prevalence among the total population	
Blood transfusions	0.032%	HIV prevalence among blood donors	[21]

MoT, modes of transmission; ANC, antenatal clinics; FSWs, female sex workers; CA, consensus agreement; HS, heterosexual sex; IDUs, injecting drug users; MSM, men who have sex with men; STD, sexually transmitted disease.

2.5 Risk behavior parameters

Table S2.5 Risk behavior parameters for each HIV risk group in the Morocco MoT model

Risk behavior	Value	Justification	Reference
Partnerships, Number per year of:			
IDU partners per IDU	3	CA and representative value based on SMENA and on GA	
Clients/partners per FSW	100	CA and representative value based SMENA and on the following specific data from Morocco: In one study, slightly over 50% of FSWs had one client during the last working day, 18% had two clients and 33.3% had less than one client. The average number of clients during the last 7 days was 4.3 clients. In another study, 70% of the respondents had more than 4 clients per week.	[23, 24]
FSW partners per client	4	CA and in order to balance the number of acts between FSWs and clients	
MSM partners per MSM	5	CA and representative value based on SMENA. Also, truck drivers in Morocco reported an average of 5 same-sex partners during the last year	[25]
Partners per person engaged in casual HS	2	Based on CA	
Rate of medical injections per person per year	4.3	Average value for the MENA region	[26]
Number of acts of exposure per year among:			
IDUs (# of shared injections per IDU per year)	50	Representative value based on GA and on CA	
Stable heterosexual sex partners of IDUs (# sex acts per stable partner of IDU per year)	50	Representative value based on GA and on CA. Also, over 80% of women seeking antenatal or family planning services had sexual relations at least once per week.	[27]
FSWs (# of sex acts per partner/client per FSW per year)	4	Representative value based on a total number of coital acts of 400 per year or about 1 act per day with a total of 100 partners per year and CA	
Clients of FSWs (# of sex acts per FSW per partner/client per year)	10	Based on CA	
Stable heterosexual sex partners of clients of FSWs (# of sex acts with stable partner per client of FSW per year)	50	Representative value based on GA and on CA. Also, over 80% of women seeking antenatal or family planning services had sexual relations at least once per week.	[27]
MSM (# of anal sex acts per MSM partner per year)	15	Based on a total number of coital acts of 75 distributed over an average of 5 partners per year and CA	
Stable female heterosexual sex partners of MSM (# of sex acts between the MSM and his stable female partner per year)	50	Representative value based on GA and on CA. Also, over 80% of women seeking antenatal or family planning services had sexual relations at least once per week.	[27]
People engaged in casual HS (# of casual sex acts per person engaged in casual HS)	20	Based on CA	

Table S2.5 continued. Risk behavior parameters for each HIV risk group in the Morocco MoT model

Risk behavior	Value	Justification	Reference
Stable heterosexual sex partners of people engaged in casual HS (# of sex acts between people engaged in casual HS and their stable partner)	50	Representative value based on GA and on CA. Also, over 80% of women seeking antenatal or family planning services had sexual relations at least once per week.	[27]
People engaged in low risk HS (# of sex acts per person)	50	Representative value based on GA and on CA	
Percentage of acts protected			
1) Sharing of needles/equipment among IDUs	50%	Based on the prevalence of 63.9% of ever sharing syringes and representative value based on SMENA and on GA	[1, 17]
2) Condom use among:			
IDUs and their stable heterosexual sex partners	2%	Based on the following DHS data: 11.4% of married women ever used a condom for contraception, while 1.5% were currently using them as a contraceptive method and on CA.	[19]
FSWs and their clients/partners	25%	Based on the frequency of condom use in different population groups in Morocco and CA	Table 18 of [22]
Clients of FSWs and their stable heterosexual sex partners	2%	Based on the following DHS data: 11.4% of married women ever used a condom for contraception, while 1.5% were currently using them as a contraceptive method and based on CA.	[19]
MSM	25%	based on the frequency of condom use in different population groups in Morocco and on CA	Table 18 of [22]
MSM and their female heterosexual sex partners	2%	Based on the following DHS data: 11.4% of married women ever used a condom for contraception, while 1.5% were currently using them as a contraceptive method and CA.	[19]
People engaged in casual HS	25%	Based on the frequency of condom use in different population groups in Morocco and on CA	Table 18 of [22]
People engaged in casual HS and their steady/spousal heterosexual sex partners	2%	Based on the following DHS data: 11.4% of married women ever used a condom for contraception, while 1.5% were currently using them as a contraceptive method and CA.	[19]
People engaged in low risk HS	2%	Based on the following DHS data: 11.4% of married women ever used a condom for contraception, while 1.5% were currently using them as a contraceptive method and CA.	[19]
Percentage of medical injections that are sterile and non-shared	99%	Based on CA	
Percentage of blood transfusions that are screened for HIV	99%	Based on Blood Bank data and on CA	[15]

MoT, modes of transmission; CA, consensus agreement; DHS, Demographic and Health Survey; FSWs, female sex workers; GA, global analyses; HS, heterosexual sex; IDUs, injecting drug users; MSM, men who have sex with men; SMENA, studies in other Middle East and North Africa countries; STI, sexually transmitted infections.

3. SUPPLEMENT TO RESULTS

Here are further results that are referred to in the Results section of the main text.

Table S3.1 Spreadsheet of the MoT model with results

Country:	Morocco				Blue cells: Input necessary						**Transmission per act**					
Adult (15-49) population size:	17,829,000				Peach cells: Input optional						Male -> female	0.0034				
Adult (15-49) HIV prevalence (%):	0.11%				Orange cells: Output						Female -> male	0.0014				
Estimated number of PLHIV	19612				Green cells: Need to check data						% men circumcised	99.0%				
											STD cofactor	0				
	Use either method 1 or 2 to determine number with risk behaviour for each group (column F).															
	Method 1: Percent of population with risk behaviour (%)		**Method 2: Population with risk behaviour**									***Transmission probability per risky exposure act***				
Adult Risk Behaviour	***Male***	***Female***	***Male***	***Female***	***Total number with risk behaviour***	***Prevalence of HIV (%)***	***Number HIV+***	***Prevalence of STI (%)***	***Number of partners per year***	***Number of acts of exposure per partner per year***	***Percentage of acts protected (%)***	***with STI***	***No STI***	**Incidence**	**% of incidence**	**Incidence per 100,000**
Injecting Drug Use (IDU)	0.19%	0.02%			18,500	2.00%	370	0.0%	3	50	50%	NA	0.008	197	5.72	1,066
Partners IDU	0.01%	0.09%			9,250	1.00%	93	NA	1	50	2%	-	0.0034	28	0.82	306
Sex workers		0.75%			66,859	2.00%	1,337	0.0%	100	4	25%	-	0.0051	497	14.41	743
Clients	7.50%				668,588	0.50%	3,343	0.0%	4	10	25%	-	0.0021	821	23.81	123
Partners of Clients		3.92%			349,671	0.25%	874	NA	1	50	2%	-	0.0034	268	7.78	77
MSM	0.50%				44,573	2.00%	891	0.0%	5	15	25%	-	0.0100	465	13.49	1,043
Female partners of MSM		0.10%			8,915	1.00%	89	NA	1	50	2%	-	0.0034	27	0.79	304
Casual heterosexual sex	10.00%	1.50%			1,025,168	0.22%	2,255	0.0%	2	20	25%	-	0.0016	82	2.39	8
Partners CHS	0.08%	5.00%			452,411	0.11%	498	NA	1	50	2%	-	0.0034	152	4.40	34
Low-risk heterosexual	61.73%	53.61%			10,282,092	0.08%	8,431	0.0%	1	50	2%	-	0.0023	906	26.29	9
No risk	20.00%	35.00%			4,902,975	0.03%	1,430	0.0%	0	0				0	0.00	0
Medical injections					17,829,000	0.11%		NA	4	1	99%	NA	0.004	3	0.10	0
Blood transfusions	0.20%	0.20%			35,658	0.03%		NA	1	1	99%	NA	0.925	0	0.01	1
TOTAL ADULT POPULATION	**100%**	**100%**			**17,829,000**	**0.11%**	**19,612**					Total incidence		3,447		19
										Total incidence in **partners** of high-risk individuals				475	13.783	58

MoT, modes of transmission.

4. SUPPLEMENT TO DISCUSSION

Here are further data that are referred to in the Discussion section of the main text.

Table S4.1 Distribution of notified HIV/AIDS cases by risk factor, 2005-9[28]

	Females N (%)	**Males N (%)**	**Total N (%)**
Multiple partners	732 (63%)	1,171 (82%)	1,903 (74%)
Affected spouse	295 (25%)	87 (6%)	382 (15%)
Drug use	14 (1%)	69 (5%)	83 (3%)
Affected mother	23 (2%)	36 (3%)	59 (2%)
Transfusion	11 (1%)	16 (1%)	27 (1%)
Other	93 (8%)	45 (3%)	138 (5%)
Total	**1.168 (100%)**	**1,424 (100%)**	**2,592 (100%)**

Table S4.2 HCV prevalence in different population groups in Morocco

Population Group	**Prevalence Rate**
Blood donors	1.1%[29]
Pregnant women	1.0%[29]
ANC attendees and family planning clinic	0.5%[30]
Barbers, all men	5.0%[31]
Hemodialysis patients	35.1%,[29] 68.3%,[32]76%,[33]
Hemophiliac patients	42.4%[29]

ANC, Antenatal clinic.

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