

Supplementary Material 1: PRISMA 2009 checklist

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	3-5
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	7
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	7
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	8
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	8-9
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	9-10
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	9-10
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	9-10
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	9-10
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	9
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	11
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	11-12

Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	11-12
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Section/topic	#	Checklist item	Reported on page #
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	N/A
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	9-10
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	10
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	9
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	13-16
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	16-25
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	9
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	N/A
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	25-33
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	33-34
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	36-37
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	1

Supplementary material 2: The PRISMA for Abstract checklist

TITLE	CHECKLIST ITEM	REPORTED ON PAGE #
1. Title:	Identify the report as a systematic review, meta-analysis, or both.	1
BACKGROUND		
2. Objectives:	The research question including components such as participants, interventions, comparators, and outcomes.	3
METHODS		
3. Eligibility criteria:	Study and report characteristics used as criteria for inclusion.	3
4. Information sources:	Key databases searched and search dates.	3
5. Risk of bias:	Methods of assessing risk of bias.	3
RESULTS		
6. Included studies:	Number and type of included studies and participants and relevant characteristics of studies.	3
7. Synthesis of results:	Results for main outcomes (benefits and harms), preferably indicating the number of studies and participants for each. If meta-analysis was done, include summary measures and confidence intervals.	4-5
8. Description of the effect:	Direction of the effect (i.e. which group is favoured) and size of the effect in terms meaningful to clinicians and patients.	5
DISCUSSION		
9. Strengths and Limitations of evidence:	Brief summary of strengths and limitations of evidence (e.g. inconsistency, imprecision, indirectness, or risk of bias, other supporting or conflicting evidence)	5

10. Interpretation:	General interpretation of the results and important implications	5
OTHER		
11. Funding:	Primary source of funding for the review.	3
12. Registration:	Registration number and registry name.	3

Supplementary material 3: AMSTAR checklist

AMSTAR – a measurement tool to assess the methodological quality of systematic reviews.

1. Was an 'a priori' design provided?

The research question and inclusion criteria should be established before the conduct of the review.

☐ Yes
(page 7)

Note: Need to refer to a protocol, ethics approval, or pre-determined/a priori published research objectives to score a "yes."

2. Was there duplicate study selection and data extraction?

There should be at least two independent data extractors and a consensus procedure for disagreements should be in place.

☐ Yes
(page 9)

Note: 2 people do study selection, 2 people do data extraction, consensus process or one person checks the other's work.

3. Was a comprehensive literature search performed?

At least two electronic sources should be searched. The report must include years and databases used (e.g., Central, EMBASE, and MEDLINE). Key words and/or MESH terms must be stated and where feasible the search strategy should be provided. All searches should be supplemented by consulting current contents, reviews, textbooks, specialized registers, or experts in the particular field of study, and by reviewing the references in the studies found.

Note: If at least 2 sources + one supplementary strategy used, select "yes" (Cochrane register/Central counts as 2 sources; a grey literature search counts as supplementary).

Electronic source
provided:

Yes (page 9)

Multiple sources:
☐ Not applicable

Search criteria
provided:

☐ Yes
(Supplementary
Material 4)

4. Was the status of publication (i.e. grey literature) used as an inclusion criterion?

The authors should state that they searched for reports regardless of their publication type. The authors should state whether or not they excluded any reports (from the systematic review), based on their publication status, language etc.

☐ Not applicable

Note: If review indicates that there was a search for "grey literature" or "unpublished literature," indicate "yes." SIGLE database, dissertations, conference proceedings, and trial registries are all considered grey for this purpose. If searching a source that contains both grey and non-grey, must specify that they were searching for grey/unpublished lit.

5. Was a list of studies (included and excluded) provided?

A list of included and excluded studies should be provided.

☐ Yes
(Supplementary
material 5 for
included SR and
under request for

Note: Acceptable if the excluded studies are referenced. If there is an electronic link to the list but the link is dead, select "no."

6. Were the characteristics of the included studies provided?

In an aggregated form such as a table, data from the original studies should be provided on the participants, interventions and outcomes. The ranges of characteristics in all the studies analyzed e.g., age, race, sex, relevant socioeconomic data, disease status, duration, severity, or other diseases should be reported.

☐ Yes
(Supplementary material 5 and 7-11)

Note: Acceptable if not in table format as long as they are described as above.

7. Was the scientific quality of the included studies assessed and documented?

'A priori' methods of assessment should be provided (e.g., for effectiveness studies if the author(s) chose to include only randomized, double-blind, placebo controlled studies, or allocation concealment as inclusion criteria); for other types of studies alternative items will be relevant.

☐ Yes
(Supplementary material 7 and 8)

Note: Can include use of a quality scoring tool or checklist, e.g., Jadad scale, risk of bias, sensitivity analysis, etc., or a description of quality items, with some kind of result for EACH study ("low" or "high" is fine, as long as it is clear which studies scored "low" and which scored "high"; a summary score/range for all studies is not acceptable).

8. Was the scientific quality of the included studies used appropriately in formulating conclusions?

The results of the methodological rigor and scientific quality should be considered in the analysis and the conclusions of the review, and explicitly stated in formulating recommendations.

☐ Yes
(page 31-32)

Note: Might say something such as "the results should be interpreted with caution due to poor quality of included studies." Cannot score "yes" for this question if scored "no" for question 7.

9. Were the methods used to combine the findings of studies appropriate?

For the pooled results, a test should be done to ensure the studies were combinable, to assess their homogeneity (i.e., Chi-squared test for homogeneity, I^2). If heterogeneity exists a random effects model should be used and/or the clinical appropriateness of combining should be taken into consideration (i.e., is it sensible to combine?).

☐ Not applicable

Note: Indicate "yes" if they mention or describe heterogeneity, i.e., if they explain that they cannot pool because of heterogeneity/variability between interventions.

10. Was the likelihood of publication bias assessed?

An assessment of publication bias should include a combination of graphical aids (e.g., funnel plot, other available tests) and/or statistical tests (e.g., Egger regression test, Hedges-Olken).

☐ Not applicable

Note: If no test values or funnel plot included, score "no". Score "yes" if mentions that publication bias could not be assessed because there were fewer than 10 included studies.

11. Was the conflict of interest included?

Potential sources of support should be clearly acknowledged in both the systematic review and the included studies.

☐ Yes

Note: To get a "yes," must indicate source of funding or support for the systematic review AND for each of the included studies.

(pages 1 and 15-16)

Supplementary material 4: Search criteria for the Medical Literature Analysis and Retrieval System Online (MEDLINE)

"Qatar"[Mesh] OR "Bahrain"[Mesh] OR "Oman"[Mesh] OR "Saudi Arabia"[Mesh] OR
"Kuwait"[Mesh] OR "United Arab Emirates"[Mesh] OR "Yemen"[Mesh] OR
"Egypt"[Mesh] OR "Jordan"[Mesh] OR "Lebanon"[Mesh] OR "Syria"[Mesh] OR
"Iraq"[Mesh] OR "Algeria"[Mesh] OR "Libya"[Mesh] OR "Morocco"[Mesh] OR
"Tunisia"[Mesh] OR "Djibouti"[Mesh] OR "Sudan"[Mesh] OR "South Sudan"[Mesh] OR
"Pakistan"[Mesh] OR "Africa, Northern"[Mesh] OR "Africa, Eastern"[Mesh] OR
"middle east"[Mesh] OR "Arabs"[Mesh] OR "UAE"[Title/Abstract] OR
"U.A.E"[Title/Abstract] OR "Emirat*"[Title/Abstract] OR "United Arab
Emirates"[Title/Abstract] OR "Qatar*"[Title/Abstract] OR "Oman*"[Title/Abstract] OR
"Saudi Arabia*"[Title/Abstract] OR "Saudi*"[Title/Abstract] OR
"Kuwait*"[Title/Abstract] OR "Bahrain*"[Title/Abstract] OR "Yemen*"[Title/Abstract]
OR "Egypt*"[Title/Abstract] OR "Jordan*"[Title/Abstract] OR "Leban*"[Title/Abstract]
OR "Syria*"[Title/Abstract] OR "Iraq*"[Title/Abstract] OR "West
Bank*"[Title/Abstract] OR "Gaza*"[Title/Abstract] OR "Palestin*"[Title/Abstract] OR
"Algeria*"[Title/Abstract] OR "Libya*"[Title/Abstract] OR "Morocc*"[Title/Abstract]
OR "Tunis*"[Title/Abstract] OR "Djibouti*"[Title/Abstract] OR
"Sudan*"[Title/Abstract] OR "South Sudan*"[Title/Abstract] OR
"Pakistan*"[Title/Abstract] OR "North Africa*"[Title/Abstract] OR "North-
Africa*"[Title/Abstract] OR ("Africa"[Title/Abstract] AND "Northern"[Title/Abstract])
OR "Middle East"[Title/Abstract] OR "Arab World"[Title/Abstract] OR "Arabian Peninsula"

Supplementary material 5: Characteristic of included systematic reviews

Systematic review	Literature search period	Literature search geographical coverage	Study population	Disease covered by the Systematic Review
Bajubair, 2008 ^[63]	2000-2005	Yemen	General population	Hepatitis B and C
Raja, 2008 ^[57]	1970-2005	Pakistan	General population	Hepatitis C
Umar, 2009 ^[41]	1992-2008	Pakistan	General and at-risk populations	Hepatitis C
Waheed, 2009 ^[40]	1994-2009	Pakistan	General and at-risk population	Hepatitis C
Ali, 2009 ^[62]	1994-2007	Pakistan	General and high-risk populations	Hepatitis B and C
Lehman, 2009 ^[65]	1980-2007	Egypt	General population and Hepatocellular carcinoma patients	Hepatitis B and C
Bosan, 2010 ^[53]	Unmentioned	Pakistan	General and at-risk populations	Hepatitis A, B, C, D, and E
Nelson, 2011 ^[34]	Inception-2011	Global	People who inject drugs	Hepatitis B and C
Riaz, 2011 ^[92]	1983-2010	Unclear	General population	Hepatitis B, C, and D
Attaullah, 2011 ^[55]	1996-2011	Pakistan	General population	Hepatitis C

Sievert, 2011 ^[50]	Unmentioned	Asia, Egypt, and Australia	General population	Hepatitis C
Alavian, 2012 ^[32]	Inception-2011	Eastern Mediterranean Region	Hemophiliac patients	Hepatitis C
Ramia, 2012 ^[38]	2000-2010	Middle East and North Africa	General population and people who inject drugs	Hepatitis C
Van-Lume, 2013 ^[45]	1990-2011	Unclear	General population	Hepatitis C and <i>S. mansoni</i> coinfection
Gasim, 2013 ^[44]	Unmentioned	African and Arab countries	Pregnant women	Hepatitis B and C
Karoney, 2013 ^[43]	1995-unmentioned	Africa	General population	Hepatitis C
Abozaid, 2013 ^[54]	Inception-2011	Saudi Arabia	General population	Hepatitis C
Ezzikouri, 2013 ^[42]	Inception-2012	North Africa	General population and at-risk groups	Hepatitis C
Mohd Hanafiah, 2013 ^[30]	1980-2007	Global	General population	Hepatitis C
Mohamoud, 2013 ^[61]	Inception-unmentioned	Egypt	General population and high-risk populations	Hepatitis C
Reker, 2014 ^[60]	2008-2012	Egypt	General population	Hepatitis C

Bruggmann, 2014 ^[56]	1990-2013	16 countries	General population	Hepatitis C
Gower, 2014 ^[6]	2000- Unmentioned	Global	General population	Hepatitis C
El-Ghitany, 2015 ^[39]	1989-2013	Egypt	General population	Hepatitis C
Chemaitelly, 2015 ^[33]	1989-2015	Middle East	General and at-risk populations	Hepatitis C
Gasim, 2015 ^[46]	1980-2014	Unclear	General population	Hepatitis B and C and Schistosomiasis coinfection
Fadlalla, 2015 ^[52]	1980- Unmentioned	North Africa	General and at-risk populations	Hepatitis C
de Martel, 2015 ^[47]	1989-2014	Global	Patients	Hepatitis B and C in hepatocellular carcinoma
Riou, 2016 ^[35]	2000-2014	Africa	General population, blood donors, pregnant women, and HIV patients	Hepatitis C
Ghaderi-Zefrehi, 2016 ^[37]	1995-2016	Middle East	HCV infected individuals	Hepatitis C
Sadeghi, 2016 ^[58]	2000-2015	Eastern Mediterranean Region	HCV infected individuals	Hepatitis C

Chaabna, 2016 ^[27]	Inception-2015	Djibouti, Somalia, Sudan, and Yemen	General and at-risk populations	Hepatitis C
Mohamoud, 2016 ^[59]	Unmentioned	Gulf Cooperation Council	General and at-risk populations	Hepatitis C
Alavian, 2016 ^[36]	1989-2015	Eastern Mediterranean Region	Patients with hepatocellular carcinoma	Hepatitis B and C in hepatocellular carcinoma
Bashour, 2016 ^[91]	Unmentioned	Syria	General population	Hepatitis B and C
Azevedo, 2016 ^[49]	Unmentioned	Africa	HIV infected individuals	Hepatitis C and HIV/AIDS
Hussein, 2016 ^[48]	Inception-Unmentioned	North Africa	General population and at-risk population	Infection associated cancer

**Supplementary material 6: Hepatitis C antibody prevalence, viremic rate (RNA positive among antibody positive),
viremic prevalence (RNA positive among the tested population), and quality assessment of the prevalence outcomes,
North Africa and Pakistan**

Country	Systematic review	Literature search period	Inclusion criteria	Number of studies	Number of subject	Population type	Quantitative synthesis method	Estimation time period	Anti-HCV prevalence (95% Confidence interval %)	Viremic rate (95% Confidence interval %)	Adult viremic prevalence (95% Confidence interval %)	Qualitative assessment
Algeria	Hussein, 2016 ^[48]	Inception-Unknown	-	-	-	General population	Reported as it is	2009	2.5	-	-	4
Algeria	Riou, 2016 ^[35]	2000-2014	Study data collection year>1995	3	3874	General population (adults)	Adjusted meta-regression	>1995	2.0 (0.1-6.0) ¹	-	-	6
Algeria	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	1	-	General population (adults≥15 years old)	Reported as it is	2011	1.4 (0.2-2.5)*	-	-	5
Algeria	Karoneý, 2013 ^[43]	1995-Unknown	-	-	-	General population	Reported as it is	-	1.8	-	-	3
Algeria	Ezzikouri, 2013 ^[42]	Inception-2012	-	-	-	General population	Weighted average according to the study size	-	1.4	-	-	3

Algeria	Fadlalla, 2015 ^[52]	1980-Unknown	-	3	4871	General population (including blood donors)	Meta-analysis	1992-2008	0.3 (0.1-0.7)	-	-	6
Algeria	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	1112	Blood donors	Reported as it is	1992-1993	0.2	-	-	6
Algeria	Ezzikouri, 2013 ^[42] ^[93]	Inception-2012	-	-	-	Blood donors	Weighted average according to the study size	-	0.4	-	-	3
Algeria	Hussein, 2016 ^[48]	Inception-Unknown	-	1	-	Blood donors and pregnant women	Reported as it is	1995	0.2	-	-	5
Algeria	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	3044	Pregnant Women	Reported as it is	2008	0.6	-	-	6
Algeria	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	715	Pregnant Women	Reported as it is	1992-1993	0.2	-	-	6
Algeria	Gasim, 2013 ^[44]	Unknown	-	1	-	Pregnant women	Reported as it is	-	2.5	-	-	4
Algeria	Ezzikouri, 2013 ^[42]	Inception-2012	-	-	-	Pregnant women	Weighted average according to the study size	-	0.2	-	-	3
Algeria	Hussein, 2016 ^[48]	Inception-Unknown	-	-	-	Hemodialysis patients	Reported as it is	-	25.0-53.0	-	-	3
Algeria	Ezzikouri, 2013 ^[42]	Inception-2012	-	-	-	Hemodialysis patients	Weighted average according to the study size	-	39.0	-	-	3

Algeria	Hussein, 2016 ^[48]	Inception-Unknown	-	-	-	Hemophiliac patients	Reported as it is	-	31.6	-	-	3
Algeria	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	64	High risk population (hemophiliac patients)	Reported as it is	2010-2011	30.0	-	-	5
Djibouti	Riou, 2016 ^[35]	2000-2014	Study data collection year>1995	1	8057	General population (adults)	Adjusted meta-regression	>1995	1.3 (0.0-5.7)	-	-	6
Djibouti	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	1	-	General population (adults≥15 years old including blood donors)	Reported as it is	-	0.3*	-	-	4
Djibouti	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	8057	General population (blood donors)	Reported as it is	1998-2000	0.3 (0.1-0.4)	-	-	6
Djibouti	Ramia, 2012 ^[38]	2000-2010	-	1	-	Blood donors	Reported as it is	-	0.3	-	-	4
Egypt	Hussein, 2016 ^[48]	Inception-Unknown	-	1	-	General population	Reported as it is	2008	14.7	-	-	5
Egypt	Riou, 2016 ^[35]	2000-2014	Study data collection year>1995	1	-	General population (adults)	Reported as it is	>1995	14.7 (13.9-15.5) ¹	-	-	5
Egypt	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	1	-	General population (adults≥15 years	Reported as it is	2008	14.7 (10.3-18.0)*	67.7*	10 (7.0-12.2)*	5

old)												
Egypt	Bruggman n, 2014 ^[56]	1990-2013	-	-	-	General population	Reported as it is	2008	12.5 (11.2-13.7)*	68.0*	8.5 (7.6-9.3)*	4
Egypt	Mohamou d, 2013 ^[61]	Inception- Unknown	-	1	11126	General population	Reported as it is	2008	14.7	-	9.8	6
Egypt	Mohamou d, 2013 ^[61]	Inception- Unknown	-	8	11073	General population	Reported as it is	<1997	4.8-41.9	-	7.7	6
Egypt	Karoney, 2013 ^[43]	1995- Unknown	-	-	-	General population	Reported as it is	-	17.5 (13.0-22.0)	-	-	3
Egypt	Sievert, 2011 ^[50]	Unknown	Only adults included; first and second generatio n immunoa ssay excluded	1	11126	General population (adults)	Reported as it is	2008	14.9*	-	-	6
Egypt	Hussein, 2016 ^[48]	Inception- Unknown	-	1	-	Blood donors	Reported as it is	2007	7.4	-	-	5

Egypt	Hussein, 2016 ^[48]	Inception-Unknown	-	1	-	Blood donors	Reported as it is	2000	17.7	-	-	5
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	15	518039	Blood donors	Reported as it is	2006-2009	1.7-16.8	-	-	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	7	64844	Blood donors	Reported as it is	2000-2007	2.7-12.0	-	-	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	14	10953	Blood donors	Reported as it is	1990-1999	5.2-35.4	-	6.2-7.4	6
Egypt	Ramia, 2012 ^[38]	2000-2010	-	-	-	Blood donors	Reported as it is	-	2.7-11.9	-	-	3
Egypt	Sievert, 2011 ^[50]	Unknown	Only adults included; first and second generation immunoassay excluded	1	-	Blood donors	Reported as it is	2006-2007	7.6-8.0*	-	-	5
Egypt	Gasim, 2013 ^[44]	Unknown	-	1	-	Pregnant women	Reported as it is	-	8.6	-	-	4
Egypt	Ramia, 2012 ^[38]	2000-2010	-	-	-	Pregnant women	Reported as it is	-	12.7	-	-	3
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	2	907	Children	Reported as it is	2002-2005	2.1-5.8	-	0.8-4.4	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	4	5115	Children	Reported as it is	1992-1997	2.5-12.1	-	2.4	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	11	6189	Healthy individuals	Reported as it is	1994-2002	6.0-46.7	-	2.8-36.3	6

Egypt	Lehman, 2009 ^[65]	1980-2007	-	7	15115	Healthy population (adults)	Meta-analysis	2000-2004	14.8	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	6	15033	Healthy population (adults)	Meta-analysis	1995-1999	14.8	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	17	35752	Healthy population (adults)	Meta-analysis	1990-2004	15.7	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	3	3017	Healthy population (adults)	Meta-analysis	1990-1994	24.7	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	2	1512	Healthy population (Child)	Meta-analysis	2000-2004	1.0	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	2	4631	Healthy population (Child)	Meta-analysis	1995-1999	4.8	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	7	6705	Healthy population (Child)	Meta-analysis	1990-2004	4.0	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	3	562	Healthy population (Child)	Meta-analysis	1990-1994	6.4	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	9	16627	Healthy population (Adult and child)	Meta-analysis	2000-2004	13.5	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	8	19664	Healthy population (Adult and child)	Meta-analysis	1995-1999	12.5	-	-	6

Egypt	Lehman, 2009 ^[65]	1980-2007	-	6	3579	Healthy population (Adult and child)	Meta-analysis	1990-1994	21.8	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	16	23221	Healthy population, Lower Egypt region (Adult)	Meta-analysis	1990-2004	17.6	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	7	3897	Healthy population, Lower Egypt region (Child)	Meta-analysis	1990-2004	5.1	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	19	27118	Healthy population, Lower Egypt region (Adult and child)	Meta-analysis	1990-2004	15.8	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	1	6031	Healthy population, Upper Egypt region (Adult)	Meta-analysis	1990-2004	8.7	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	1	2808	Healthy population, Upper Egypt region (Child)	Meta-analysis	1990-2004	2.5	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	2	8839	Healthy population, Upper Egypt region (Adult and child)	Meta-analysis	1990-2004	6.7	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	1	580	Healthy population, urban residence (Adult)	Meta-analysis	1990-2004	8.1	-	-	6

Egypt	Lehman, 2009 ^[65]	1980-2007	-	2	600	Healthy population, urban residence (Child)	Meta-analysis	1990-2004	3.0	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	3	1180	Healthy population, urban residence (Adult and child)	Meta-analysis	1990-2004	5.5	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	9	22037	Healthy population, rural residence (Adult)	Meta-analysis	1990-2004	15.4	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	1	5063	Healthy population, rural residence (Child)	Meta-analysis	1990-2004	4.9	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	10	27100	Healthy population, rural residence (Adult and child)	Meta-analysis	1990-2004	13.4	-	-	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	3	1567	Military recruits	Reported as it is	1992-1994	22.1-39.0	-	-	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	8	11761	Rural village residents	Reported as it is	2002-2007	2.8-51.3	-	7.4-38.5	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	18	23653	Rural village residents	Reported as it is	1992-2003	0.0-51.0	-	2.0-14.8	6
Egypt	Ramia, 2012 ^[38]	2000-2010	-	-	-	Barbers' clients	Reported as it is	-	12.7	-	-	3
Egypt	Ramia, 2012 ^[38]	2000-2010	-	-	-	Barbers	Reported as it is	-	12.3	-	-	3

Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	1	100	People who inject drugs	Reported as it is	-	63.0	-	-	5
Egypt	Ramia, 2012 ^[38]	2000-2010	-	10	-	People who inject drugs	Reported as it is	-	13.6	-	-	4
Egypt	Nelson, 2011 ^[34]	Inception-2011	-	-	-	People who inject drugs	Reported as it is	-	35.8-63.0	-	-	3
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	5	411	Hemodialysis patients	Reported as it is	2002-2009	46.1-100	-	-	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	9	750	Hemodialysis patients	Reported as it is	1990-2000	46.2-87.5	-	-	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	7	503	Multi-transfused patients	Reported as it is	2000-2008	11.1-81.6	-	23.5-49.0	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	2	155	Multi-transfused patients	Reported as it is	1990-1992	54.9-55.0	-	-	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	5	463	Thalassemic patients	Reported as it is	2000-2010	19.5-69.6	-	32.2	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	2	63	Thalassemic patients	Reported as it is	1990-1992	44.4-75.6	-	-	5
Egypt	Hussein, 2016 ^[48]	Inception-Unknown	-	1	-	Patients with hepatocellular carcinoma	Reported as it is	2002	87.9	-	-	5
Egypt	Hussein, 2016 ^[48]	Inception-Unknown	-	1	-	Patients with hepatocellular carcinoma	Reported as it is	1993	85.6	-	-	5

Egypt	Alavian, 2016 ^[36]	1989-2015	Sample size≥20, HCV testing> ELISA 1st Generation	9	4429	Patients with hepatocellular carcinoma	Pooling	-	79.8	-	-	4
Egypt	de Martel, 2015 ^[47]	1989-2014	Sample size≥20, HCV testing> ELISA 1st Generation	9	4215	Patients with hepatocellular carcinoma	Proportion	-	79.8	-	-	5
Egypt	Lehman, 2009 ^[65]	1980-2007	-	4	1158	Patients with hepatocellular carcinoma	Meta-analysis	1997-2004	85.9	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	6	982	Patients with hepatocellular carcinoma	Meta-analysis	1991-1996	68.5	-	-	6
Egypt	Lehman, 2009 ^[65]	1980-2007	-	10	3140	Patients with hepatocellular carcinoma	Meta-analysis	1990-2004	78.5	-	-	6
Egypt	Ramia, 2012 ^[38]	2000-2010	-	-	-	Patients with elevated liver enzymes	Reported as it is	-	72.9	-	-	3

Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	7	5229	Viral hepatitis patients	Reported as it is	2001-2012	8.0-78.7	-	8.7-70.2	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	2	191	Viral hepatitis patients	Reported as it is	<1994	19.2-25.5	-	-	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	3	1785	Antenatal clinic attendees	Reported as it is	2003-2009	8.0-13.0	-	6.8-7.4	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	4	4990	Antenatal clinic attendees	Reported as it is	1996-2003	4.3-19.0	-	10.8-23.7	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	2	1062	Outpatients	Reported as it is	2004-2006	1.4-5.0	-	0.5	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	3	299	Outpatients	Reported as it is	1990-2002	0.0-11.8	-	-	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	3	308	Schistosomiasis patients	Reported as it is	2002-2011	7.7-84.0	-	-	6
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	4	419	Schistosomiasis patients	Reported as it is	<2000	16.3-42.5	-	-	6
Egypt	Van-Lume, 2013 ^[45]	1990-2011	-	5	2648	Schistosomiasis patients	Reported as it is	-	10.3-50.0	-	-	5
Egypt	Gasim, 2015 ^[46]	1980-2014	-	4	-	Shistosomiasis patients (hepatosplenic)	Reported as it is	-	33.0-40.2	-	-	4

Egypt	Ghaderi-Zefrehi, 2016 ^[37]	1995-2016	-	15	-	Mixed population (blood donors, pregnant women, PWID, kidney transplant, thalassemic, hemophiliac, and hemodialysis patients)	-	-	14.7	-	-	3
Libya	Riou, 2016 ^[35]	2000-2014	Study data collection year>1995	1	-	General population (adults)	Reported as it is	>1995	1.2 (1.1-1.3) ¹	-	-	5
Libya	Hussein, 2016 ^[48]	Inception-Unknown	-	-	-	General population	Reported as it is	mid-1990	8.0	-	-	4
Libya	Hussein, 2016 ^[48]	Inception-Unknown	-	1	-	General population	Reported as it is	-	1.2	-	-	4
Libya	Fadlalla, 2015 ^[52]	1980-Unknown	-	2	1073925	General population	Reported as it is	2003-2008	1.2-1.8	-	-	6
Libya	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	878	General population	Reported as it is	-	23.2	-	-	5
Libya	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	2	-	General population (adults≥15 years old)	Reported as it is	2004-2005	1.2 (1.2-2.3)*	-	-	5
Libya	Karoney, 2013 ^[43]	1995-Unknown	-	-	-	General population	Reported as it is	-	1.2	-	-	3
Libya	Ezzikouri, 2013 ^[42]	Inception-2012	-	-	-	General population	Weighted average according to	-	1.5	-	-	3

the study size												
Libya	Fadlalla, 2015 ^[52]	1980-Unknown	-	3	1362	Blood donors	Reported as it is	1992-2001	0.9-6.6	60.0	-	6
Libya	Ezzikouri, 2013 ^[42]	Inception-2012	-	-	-	Blood donors	Weighted average according to the study size	-	1.2	-	-	3
Libya	Gasim, 2013 ^[44]	Unknown	-	1	-	Pregnant women	Reported as it is	-	0.4	-	-	4
Libya	Ezzikouri, 2013 ^[42]	Inception-2012	-	-	-	Pregnant women	Weighted average according to the study size	-	2.3	-	-	3
Libya	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	800	Healthy adults	Reported as it is	1999-2001	1.6	-	-	6
Libya	Fadlalla, 2015 ^[52]	1980-Unknown	-	2	296	Sex workers	Reported as it is	2010-2011	5.2-7.3	-	-	6
Libya	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	328	People who injects drugs	Reported as it is	2010	94.2	-	-	6
Libya	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	6371	Prisoners	Reported as it is	2006	23.7	-	-	6
Libya	Fadlalla, 2015 ^[52]	1980-Unknown	-	2	1300	Patients referred to the infectious disease department	Reported as it is	2003	44.9-54.1	-	-	6
Libya	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	46	Contact of HIV patients (parents)	Reported as it is	1998-1999	4.4	-	-	5
Libya	Azevedo, 2016 ^[49]	Inception-2016	Sample size>20	2	1422	HIV-infected prisoners	Meta-analysis	-	90.1 (78.2-100)	-	-	5
Libya	Fadlalla, 2015 ^[52]	1980-Unknown	-	2	148	HIV infected patients	Reported as it is	1998-1999	43.0-46.0	-	-	6

						(children, parenteral route)						
Libya	Fadlalla, 2015 ^[52]	1980- Unknown	-	1	2382	Dialysis patients	Reported as it is	2009-2010	32.3	-	-	6
Libya	Fadlalla, 2015	1980- Unknown	-	3	400	Dialysis patients	Reported as it is	<2001	20.5-42.5	72.0	-	6
Libya	Ezzikouri, 2013 ^[42]	Inception- 2012	-	-	-	Hemodialysis patients	Weighted average according to the study size	-	20.5	-	-	3
Libya	Hussein, 2016 ^[48]	Inception- Unknown	-	-	-	Renal dialysis	Reported as it is	-	20.5	-	-	3
Libya	Fadlalla, 2015 ^[52]	1980- Unknown	-	1	329	Renal disease patients (children)	Reported as it is	-	8.5	-	-	5
Libya	Hussein, 2016 ^[48]	Inception- Unknown	-	-	-	Multi-transfused patients	Reported as it is	-	11.0	-	-	3
Libya	Fadlalla, 2015 ^[52]	1980- Unknown	-	1	250	Multi-transfused patients	Reported as it is	1999-2001	10.8	-	-	6
Libya	Ramia, 2012 ^[38]	2000-2010	-	1	-	Inpatients	Reported as it is	-	46.9	-	-	4
Libya	Fadlalla, 2015 ^[52]	1980- Unknown	-	1	749	Patients with diabetes	Reported as it is	2009	24.4	-	-	6
Libya	Fadlalla, 2015 ^[52]	1980- Unknown	-	1	17419	Patients with unspecific disease	Reported as it is	2007-2008	3.7	-	-	6
Libya	Fadlalla, 2015 ^[52]	1980- Unknown	-	2	649	Healthcare workers	Reported as it is	1992-2001	2.0-6.8	69.2	-	6
Libya	Fadlalla, 2015 ^[52]	1980- Unknown	-	1	300	Medical-waste handlers	Reported as it is	2004	2.7	-	-	6

Libya	Ghaderi-Zefrehi, 2016 ^[37]	1995-2016	-	3	-	Mixed population (blood donors, pregnant women, PWID, kidney transplant, thalassemic, hemophiliac, and hemodialysis patients)	-	-	1.2	-	-	3
Morocco	Riou, 2016 ^[35]	2000-2014	Study data collection year>1995	7	254384	General population (adults)	Adjusted meta-regression	>1995	1.6 (0.0-7.5) ¹	-	-	6
Morocco	Hussein, 2016 ^[48]	Inception-Unknown	-	-	-	General population	Reported as it is	-	0.3 (lower than the reported blood donors value)	-	-	3
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	3	74241	General population	Reported as it is	2005-2011	1.1-1.9	-	-	6
Morocco	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	2	-	General population (adults≥15 years old)	Reported as it is	2005-2011	1.6 (0.6-1.9)*	70.9*	1.1 (0.4-1.4)*	5
Morocco	Karoney, 2013 ^[43]	1995-Unknown	-	-	-	General population	Reported as it is	-	7.7	-	-	3
Morocco	Ezzikouri, 2013 ^[42]	Inception-2012	-	-	-	General population	Weighted average according to the study size	-	1.3	-	-	3

Morocco	Ramia, 2012 ^[38]	2000-2010	-	-	-	General population	Reported as it is	-	1.9	-	-	3
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	11	417897	General population (including blood donors)	Meta-analysis	2005-2011	0.7 (0.4-1.1)	-	-	6
Morocco	Hussein, 2016 ^[48]	Inception-Unknown	-	-	-	Blood donors	Reported as it is	-	2.0 (higher than the reported general population value)	-	-	3
Morocco	Hussein, 2016 ^[48]	Inception-Unknown	-	-	-	Blood donors	Reported as it is	-	0.3	-	-	3
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	4	322380	Blood donors	Reported as it is	2005-2011	0.2-0.8	-	-	6
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	1000	Blood donors	Reported as it is	-	1.1	-	-	5
Morocco	Ezzikouri, 2013 ^[42]	Inception-2012	-	-	-	Blood donors	Weighted average according to the study size	-	0.6	-	-	3
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	676	Pregnant women	Reported as it is	-	1.0	-	-	5
Morocco	Gasim, 2013 ^[44]	Unknown	-	1	-	Pregnant women	Reported as it is	-	1.0	-	-	4
Morocco	Ezzikouri, 2013 ^[42]	Inception-2012	-	-	-	Pregnant women	Weighted average according to the study size	-	1.0	-	-	3
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	529	Clients of barbers	Reported as it is	2007	1.3	-	-	6

Morocco	Hussein, 2016 ^[48]	Inception-Unknown	-	1	-	Military recruits	Reported as it is	-	0.4	-	-	4
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	16000	Military recruits	Reported as it is	2005-2006	0.4	-	-	6
Morocco	Hussein, 2016 ^[48]	Inception-Unknown	-	1	-	Barbers	Reported as it is	2001	5.0	-	-	5
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	2	417	Barbers	Reported as it is	2001-2007	1.1-5.0	-	-	6
Morocco	Hussein, 2016 ^[48]	Inception-Unknown	-	-	-	People who inject drugs	Reported as it is	-	60.1	-	-	3
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	4	640	People who inject drugs	Reported as it is	2010-2012	22.9-79.2	-	-	6
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	2088	Patients with sexually transmitted disease	Reported as it is	-	3.0	-	-	5
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	503	HIV infected patients	Reported as it is	2006-2010	5.4	-	-	6
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	116	HIV infected patients	Reported as it is	<1993	19.8	-	-	6
Morocco	Azevedo, 2016 ^[49]	Inception-2016	Sample size>20	1	503	HIV-infected outpatients	Reported as it is	-	5.4 (3.3-7.4)	70.4	3.8 (2.0-5.6)	5
Morocco	Azevedo, 2016 ^[49]	Inception-2016	Sample size>20	1	116	HIV-infected people from the community	Reported as it is	-	19.8	-	-	5
Morocco	Hussein, 2016 ^[48]	Inception-Unknown	-	-	-	Hemodialysis patients	Reported as it is	-	34.0-68.0	-	-	3
Morocco	Ezzikouri, 2013 ^[42]	Inception-2012	-	-	-	Hemodialysis patients	Weighted average according to the study	-	48.6	-	-	3

size												
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	2	240	Dialysis patients	Reported as it is	1983-2002	35.1-76.0	-	-	6
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	2	388	Dialysis patients	Reported as it is	2003-2004	54.1-68.3	-	-	6
Morocco	Hussein, 2016 ^[48]	Inception-Unknown	-	-	-	Hemophiliac patients	Reported as it is	-	42.0	-	-	3
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	3	419	Hemophiliac patients	Reported as it is	1981-2006	2.3-42.4	-	-	6
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	2	126	Renal transplant patients	Reported as it is	1987-2008	10.1-19.3	-	-	6
Morocco	Ramia, 2012 ^[38]	2000-2010	-	-	-	Thalassemic patients	Reported as it is	-	68.3-76.0	-	-	3
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	-	Antenatal clinic attendees	Reported as it is	-	0.5	-	-	4
Morocco	Hussein, 2016 ^[48]	Inception-Unknown	-	1	-	Inpatients	Reported as it is	-	3.1	-	-	4
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	2350	Inpatients	Reported as it is	2005-2006	0.8	-	-	6
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	280	Inpatients	Reported as it is	1995-1996	10.4	75.0	-	6
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	503	Outpatients	Reported as it is	1995-1996	6.2	-	-	6
Morocco	Ramia, 2012 ^[38]	2000-2010	-	-	-	Patients	Reported as it is	-	7.7	-	-	3
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	7050	Patients consulting for HCV infection	Reported as it is	2005-2006	2.3	-	-	6

Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	90	Acute viral hepatitis patients	Reported as it is	1983-1986	44.4	-	-	5
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	130	Acute viral hepatitis patients (children)	Reported as it is	1999	0.0	-	-	6
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	38	Patients with chronic liver disease	Reported as it is	1983-1986	73.7	-	-	5
Morocco	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	96	Patients with hepatocellular carcinoma	Reported as it is	2003-2006	57.3	-	-	5
Sudan	Riou, 2016 ^[35]	2000-2014	Study data collection year>1995	5	1543	General population (adults)	Adjusted meta-regression	>1995	1.7 (0.1-5.4) ¹	-	-	6
Sudan	Karoney, 2013 ^[43]	1995-Unknown	-	-	-	General population	Reported as it is	-	3.0	-	-	3
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	7	1856	General population (including blood donors)	Meta-analysis	1996-2007	1.0 (0.3-1.9)	-	-	6
Sudan	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	1	-	General population (adults≥15 years old, including blood donors)	Reported as it is	-	0.7*	-	-	4
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	3	738	Blood donors	Reported as it is	2005-2007	0.0-1.3	-	-	6

Sudan	Ramia, 2012 ^[38]	2000-2010	-	-	-	Blood donors	Reported as it is	-	0.7	-	-	3
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	423	Pregnant women	Reported as it is	2006	0.6	-	-	6
Sudan	Gasim, 2013 ^[44]	Unknown	-	1	-	Pregnant women	Reported as it is	-	0.6	-	-	4
Sudan	Ramia, 2012 ^[38]	2000-2010	-	-	-	Pregnant women	Reported as it is	-	0.6	-	-	3
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	396	Women attending maternity hospital (patients with antepartum hemorrhage, hypertension, and diabetes mellitus excluded)	Reported as it is	2011	1.3	-	-	6
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	2	299	Controls in observational studies	Reported as it is	1996-1998	2.0-4.0	-	-	6
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	10	2989	Female sex workers	Reported as it is	2011-2012	0.0-5.1	-	-	6
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	8	2127	Men who have sex with men	Reported as it is	2011-2012	0.0-5.9	-	-	6
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	358	HIV-infected patients	Reported as it is	2010-2012	1.7	-	-	6

Sudan	Azevedo, 2016 ^[49]	Inception-2016	Sample size>20	1	358	HIV-infected outpatients	Reported as it is and Poisson regression	-	1.7 (0.2-2.3)	-	1.2	5
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	6	979	High risk population (schistosomiasis, hemodialysis, hemophiliac, and hemodialysis patients)	Meta-analysis	1994-2010	17.3 (8.6-28.2)	-	-	6
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	2	589	Hemodialysis patients	Reported as it is	2005-2010	8.5-23.7	-	-	6
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	46	Hemodialysis patients	Reported as it is	1994	34.9	-	-	5
Sudan	Ramia, 2012 ^[38]	2000-2010	-	-	-	Hemodialysis patients	Reported as it is	-	34.0	-	-	3
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	62	Hemophiliac patients	Reported as it is	2008	13.0	-	-	5
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	2	282	Schistosomiasis patients	Reported as it is	2001	4.5-31.1	-	-	6
Sudan	Gasim, 2015 ^[46]	1980-2014	-	1	-	Schistosomiasis patients (hepatosplenic)	Reported as it is	-	2.3	-	-	4
Sudan	Van-Lume, 2013 ^[45]	1990-2011	-	2	586	Schistosomiasis patients	Reported as it is	-	2.2-4.5	-	2.3	5
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	666	Patients (pediatric)	Reported as it is	1989	3.0	-	-	6

Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	16	Patients with acute viral hepatitis (pregnant women)	Reported as it is	2007	6.3	-	-	5
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	115	Patients with hepatocellular carcinoma	Reported as it is	1996-1998	11.0	-	-	6
Sudan	Alavian, 2016 ^[36]	1989-2015	Sample size≥20, HCV testing> ELISA 1st Generation	1	115	Patients with hepatocellular carcinoma	Pooling	-	10.4	-	-	4
Sudan	de Martel, 2015 ^[47]	1989-2014	Sample size≥20, HCV testing> ELISA 1st Generation	1	115	Patients with hepatocellular carcinoma	Proportion	-	10.4	-	-	5
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	2	273	Healthcare workers	Reported as it is	2005-2007	0.0	-	-	6
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	37	Healthcare workers	Reported as it is	1994	5.4	-	-	5
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	23	6450	Intermediate risk populations (healthcare workers, sex workers, men who have sex with men,	Meta-analysis	1989-2012	0.6 (0.4-0.8)	-	-	6

patients with HIV, and patients)											
			Study data collection year>1995								
Tunisia	Riou, 2016 ^[35]	2000-2014	5	14238	General population (adults)	Adjusted meta-regression	>1995	1.8 (0.1-5.9)	-	-	6
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	3	14586	General population	Reported as it is	1994-1996	0.2-1.7	71.0-82.0	6
Tunisia	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	1	-	General population (adults≥15 years old)	Age-adjustment	2012	1.3 (0.3-2.5)*	80.0*	4
Tunisia	Karoney, 2013 ^[43]	1995-Unknown	-	-	-	General population	Reported as it is	-	0.6 (0.4-0.7)	-	3
Tunisia	Ezzikouri, 2013 ^[42]	Inception-2012	-	-	-	General population	Weighted average according to the study size	-	1.2	-	3
Tunisia	Ramia, 2012 ^[38]	2000-2010	-	-	-	General population	Reported as it is	-	1.9	-	3
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	24	760041	General population (including blood donors)	Meta-analysis	1982-2010	0.5 (0.3-0.7)	71.0-82.0	6
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	8	616373	Blood donors	Reported as it is	2000-2010	0.1-0.9	-	6
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	8	126168	Blood donors	Reported as it is	1982-1999	0.2-3.0	-	6
Tunisia	Ezzikouri, 2013 ^[42]	Inception-2012	-	-	-	Blood donors	Weighted average	-	0.6	-	3

							according to the study size					
Tunisia	Ramia, 2012 ^[38]	2000-2010	-	-	-	Blood donors	Reported as it is	-	0.6	-	-	3
Tunisia	Hussein, 2016 ^[48]	Inception- Unknown	-	-	-	Blood donors	Reported as it is	-	0.6	-	-	3
Tunisia	Fadlalla, 2015 ^[52]	1980- Unknown	-	1	404	Pregnant women	Reported as it is	2006	0.2	-	-	6
Tunisia	Gasim, 2013 ^[44]	Unknown	-	1	-	Pregnant women	Reported as it is	-	0.5	-	-	4
Tunisia	Ezzikouri, 2013 ^[42]	Inception- 2012	-	-	-	Pregnant women	Weighted average according to the study size	-	0.5	-	-	3
Tunisia	Fadlalla, 2015 ^[52]	1980- Unknown	-	3	1775	Controls in observational studies	Reported as it is	2003-2009	0.3-0.6	-	-	6
Tunisia	Fadlalla, 2015 ^[52]	1980- Unknown	-	2	799	Healthy adults	Reported as it is	-	0.0-0.4	-	-	5
Tunisia	Fadlalla, 2015 ^[52]	1980- Unknown	-	1	188	Female sex workers	Reported as it is	2007	1.1	-	-	6
Tunisia	Fadlalla, 2015 ^[52]	1980- Unknown	-	2	738	People who inject drugs	Reported as it is	2009-2012	21.7-29.1	-	-	6
Tunisia	Azevedo, 2016 ^[49]	Inception- 2016	Sample size>20	2	487	HIV-infected outpatients	Meta- analysis and Poisson regression	-	33.5 (20.4-46.6)	-	23.6	5
Tunisia	Fadlalla, 2015 ^[52]	1980- Unknown	-	2	487	HIV infected patients	Reported as it is	1997-2006	26.4-39.7	-	-	6
Tunisia	Fadlalla, 2015 ^[52]	1980- Unknown	-	8	5011	Dialysis patients	Reported as it is	2000-2003	14.6-32.6	60.5-93.3	-	6
Tunisia	Fadlalla, 2015 ^[52]	1980- Unknown	-	4	591	Dialysis patients	Reported as it is	<2000	42.0-46.5	51.0	-	6

Tunisia	Ramia, 2012 ^[38]	2000-2010	-	-	-	Dialysis patients	Reported as it is	-	20.0-32.6	-	-	3
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	107	Multi-transfused patients	Reported as it is	2008-2009	4.7	-	-	6
Tunisia	Ezzikouri, 2013 ^[42]	Inception-2012	-	-	-	Hemodialysis patients	Weighted average according to the study size	-	20.0	-	-	3
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	70	Hemophiliac patients	Reported as it is	-	50.0	-	-	4
Tunisia	Alavian, 2012 ^[32]	Inception-2011	-	2	165	Hemophiliac patients	Meta-analysis	-	55.7 (48.1-63.3)	-	-	5
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	391	Thalassemic patients	Reported as it is	-	6.1	-	-	5
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	3	95	Acute hepatitis patients	Reported as it is	1982-<1995	8.0-48.0	-	-	5
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	77	Patients with chronic liver disease	Reported as it is	2005-2008	80.5	-	-	5
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	2	191	Patients with cirrhosis	Reported as it is	-	31.0-43.0	-	-	5
Tunisia	Alavian, 2016 ^[36]	1989-2015	Sample size≥20, HCV testing> ELISA 1st Generation	1	74	Patients with hepatocellular carcinoma	Pooling	-	63.5	-	-	3

Tunisia	de Martel, 2015 ^[47]	1989-2014	Sample size≥20, HCV testing> ELISA 1st Generation	1	74	Patients with hepatocellular carcinoma	Proportion	-	63.5	-	-	4
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	31	Patients with hepatocellular carcinoma	Reported as it is	-	19.0	-	-	4
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	28	Patients with hepatitis B	Reported as it is	1982-1986	14.3	-	-	5
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	273	Patients with hepatitis B	Reported as it is	2010	3.8	-	-	6
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	115	Renal transplant patients	Reported as it is	1987-2004	20.9	91.7	-	6
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	1269	Patients with diabetes	Reported as it is	2003	1.3	-	-	6
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	41	Psoriatic patients	Reported as it is	-	9.6	-	-	4
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	150	Patients with inflammatory bowel disease	Reported as it is	-	2.0	-	-	5
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	542	Inpatients	Reported as it is	1997-1999	20.3	-	-	6
Tunisia	Fadlalla, 2015 ^[52]	1980-Unknown	-	1	885	Healthcare workers	Reported as it is	2005	1.0	-	-	6

Pakistan	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	2	-	General population (adults≥15 years old)	Age-adjustment	2007-2008	6.7 (1.6-10.0)*	87.4*	5.8 (1.4-8.7)*	4
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	4	5140	General population	Reported as it is	2003-2006	2.1-13.5	-	-	6
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	1	47583	General population	Reported as it is	1998-2004	5.3	-	-	6
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	4	975	General population	Reported as it is	1993-1999	4.0-6.5	-	-	6
Pakistan	Waheed, 2009 ^[40]	1994-2009	-	10	83520	General population	Weighted average according to the study size	-	4.9 ± 0.5	-	-	5
Pakistan	Ali, 2009 ^[62]	1994-2007	-	15	91355	General population (adult, non-blood donors)	Weighted average according to the study size	1996-2007	5.4	-	-	6

Pakistan	Ali, 2009 ^[62]	1994-2007	-	6	79848	General population and blood donors in North areas (adult)	Weighted average according to the study size	2004-2007	2.2	-	-	6
Pakistan	Ali, 2009 ^[62]	1994-2007	-	25	414012	General population and blood donors in Punjab (adult)	Weighted average according to the study size	1996-2007	4.3	-	-	6
Pakistan	Ali, 2009 ^[62]	1994-2007	-	6	383344	General population and blood donors in Sindh (adult)	Weighted average according to the study size	1996-2006	1.8	-	-	6
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	23	302194	Blood donors	Reported as it is	2000-2006	0.2-8.6	-	-	6
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	5	159051	Blood donors	Reported as it is	1995-2000	0.5-6.5	-	-	6
Pakistan	Ali, 2009 ^[62]	1994-2007	-	23	787349	Blood donors	Weighted average according to the study size	1994-2007	2.8	-	-	6
Pakistan	Umar, 2009 ^[41]	1992-2008	-	38	808872	Blood donors	Proportion	-	2.7	-	-	5

Pakistan	Umar, 2009 ^[41]	1992-2008	-	4	1529	Blood donors (professional)	Proportion	-	10.4	-	-	5
Pakistan	Waheed, 2009 ^[40]	1994-2009	-	12	221612	Blood donors (volunteer)	Weighted average according to the study size	-	3.8 ± 0.4	-	-	5
Pakistan	Ali, 2009 ^[62]	1994-2007	-	1	1500	Blood donors in Balochistan (adult)	Reported as it is	2003	1.9	-	-	6
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	10	6840	Pregnant women	Reported as it is	2001-2007	3.2-18.2	-	-	6
Pakistan	Bosan, 2010 ^[53]	Unknown		1	474	Pregnant women	Reported as it is	1997	6.4	-	-	6
Pakistan	Ali, 2009 ^[62]	1994-2007		5	2050	Pregnant women	Weighted average according to the study size	2001-2006	5.3	-	-	6
Pakistan	Waheed, 2009 ^[40]	1994-2009	-	4	1853	Pregnant women	Weighted average according to the study size	-	4.5 ± 3.5	-	-	5

Pakistan	Ali, 2009 ^[62]	1994-2007	-	9	6393	General population (Children)	Weighted average according to the study size	1994-2007	2.1	-	-	6
Pakistan	Waheed, 2009 ^[40]	1994-2009	-	6	5396	Children	Weighted average according to the study size	-	1.7 ± 0.2	-	-	5
Pakistan	Umar, 2009 ^[41]	1992-2008	-	9	6389	Children	Proportion	-	1.8	-	-	5
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	2	551	Healthy population (Child)	Reported as it is	2000-2004	0.6-1.4	-	-	6
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	2	774	Healthy population (Child)	Reported as it is	1994-1995	0.4-4.0	-	-	6
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	6	14389	Military recruits	Reported as it is	2000-2007	2.2-5.2	-	-	6
Pakistan	Waheed, 2009 ^[40]	1994-2009	-	6	31035	Military recruits	Weighted average according to the study	-	3.6 ± 0.3	-	-	5

size												
Pakistan	Umar, 2009 ^[41]	1992-2008	-	34	123144	Screened adults (controls, pre-employment screening, employees)	Proportion	-	6.3	-	-	5
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	5	521	Contacts of HCV patients (spouse)	Reported as it is	2000-2004	4.3-38.0	-	-	6
Pakistan	Umar, 2009 ^[41]	1992-2008	-	7	1010	Contacts of HCV patients	Proportion	-	21.6	-	-	5
Pakistan	Waheed, 2009 ^[40]	1994-2009	-	4	453	Contacts of HCV patients (sexual/spouse)	Weighted average according to the study size	-	17.2 ± 8.0	-	-	5
Pakistan	Ali, 2009 ^[62]	1994-2007	-	7	1209	Contacts of HCV patients (spouse)	Weighted average according to the study size	1999-2007	19.0	-	-	6
Pakistan	Nelson, 2011 ^[34]	Inception-2011	-	-	-	People who inject drugs	Reported as it is	-	75.0-92.9	-	-	3
Pakistan	Waheed, 2009 ^[40]	1994-2009	-	5	966	People who inject drugs	Weighted average according to the study size	-	57.0 ± 17.7	-	-	5

Pakistan	Umar, 2009 ^[41]	1992-2008	-	3	562	People who inject drugs	Proportion	-	87.0	-	-	5
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	2	312	Hemodialysis patients	Reported as it is	2000-2002	19.7-24.7	-	-	6
Pakistan	Ali, 2009 ^[62]	1994-2007	-	2	147	Dialysis patients	Weighted average according to the study size	2003-2005	38.8	-	-	6
Pakistan	Alavian, 2012 ^[32]	Inception-2011	-	3	681	Hemophiliac patients	Meta-analysis	-	36.0 (4.5-67.5)	-	-	5
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	3	180	Hemophiliac patients	Reported as it is	2000-2002	25.0-56.0	-	-	6
Pakistan	Umar, 2009 ^[41]	1992-2008	-	3	240	Hemophiliac patients	Proportion	-	50.8	-	-	5
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	2	77	Multi- and single-transfused patients	Reported as it is	2002	13.2-15.4	-	-	5
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA,	4	590	Thalassemic patients	Reported as it is	1999-2003	36.2-56.8	-	-	6

			EIA, and MEIA assays were included									
Pakistan	Umar, 2009 ^[41]	1992-2008	-	6	876	Thalassemic patients	Proportion	-	44.2	-	-	5
Pakistan	Waheed, 2009 ^[40]	1994-2009	-	6	685	Thalassemic and hemophilic patients	Weighted average according to the study size	-	48.7 ± 1.7	-	-	5
Pakistan	Ali, 2009 ^[62]	1994-2007	-	7	751	Thalassemic and hemophiliac patients	Weighted average according to the study size	1995-2005	47.2	-	-	6
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	14	2503	Patients with chronic liver disease	Reported as it is	2000-2005	0.0-86.6	-	-	6
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	13	2254	Patients with chronic liver disease	Reported as it is	1995-2002	33.0-86.0	-	-	6
Pakistan	Alavian, 2016 ^[36]	1989-2015	Sample size≥20, HCV testing> ELISA 1st	16	1973	Patients with hepatocellular carcinoma	Pooling	-	53.7	-	-	4

Country		Study period		Generati on	Sample size		Study population		Study design		Prevalence		Sensitivity		Specificity		Ref
Country		Study period		Generati on	Sample size		Study population		Study design		Prevalence		Sensitivity		Specificity		Ref
Pakistan	de Martel, 2015 ^[47]	1989-2014	Sample size≥20, HCV testing> ELISA 1st Generati on	15	1783	Patients with hepatocellular carcinoma	Proportion	-	53.7	-	-	5					
Pakistan	Umar, 2009 ^[41]	1992-2008	-	61	13745	Patients with liver disease	Proportion	-	56.9	-	-	5					
Pakistan	Umar, 2009 ^[41]	1992-2008	-	6	613	Renal failure patients	Proportion	-	31.6	-	-	5					
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	2	2132	Surgical patients	Reported as it is	1998-2003	3.0-16.2	-	-	6					
Pakistan	Umar, 2009 ^[41]	1992-2008	-	5	1400	Antenatal screening	Proportion	-	7.0	-	-	5					
Pakistan	Umar, 2009 ^[41]	1992-2008	-	22	25746	Inpatients and outpatients	Proportion	-	5.9	-	-	5					
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were	3	684	Healthcare workers	Reported as it is	2001-2002	5.6-6.0	-	-	6					

			included									
Pakistan	Bosan, 2010 ^[53]	Unknown	Only ELISA, EIA, and MEIA assays were included	3	821	Healthcare workers	Reported as it is	1995-2000	4.0-10.0	-	-	6
Pakistan	Ali, 2009 ^[62]	1994-2007	-	3	669	Healthcare workers	Weighted average according to the study size	1998-2004	5.5	-	-	6
Pakistan	Waheed, 2009 ^[40]	1994-2009	-	2	364	Healthcare workers	Weighted average according to the study size	-	5.2 ± 0.6	-	-	5
Pakistan	Umar, 2009 ^[41]	1992-2008	-	4	676	Healthcare workers	Proportion	-	5.6	-	-	5
Pakistan	Umar, 2009 ^[41]	1992-2008	-	5	16651	"Community prevalence"	Proportion	-	11.5	-	-	5
Pakistan	Umar, 2009 ^[41]	1992-2008	-	5	2938	Mixed population (lymphoproliferative disorder patients, prisoners, depressed patients, mother, and sex workers)	Proportion	-	7.2	-	-	5

¹ Prediction interval.

Supplementary material 7: Hepatitis C antibody prevalence, viremic rate (RNA positive among antibody positive), viremic prevalence (RNA positive among the tested population), and quality assessment of the prevalence outcomes, Arab Peninsula and Fertile Crescent region

Country	Systematic review	Literature search period	Inclusion criteria	Number of studies	Number of subjects	Population type	Quantitative synthesis method	Estimation time period	Anti-HCV prevalence (95% Confidence interval %)	Viremic rate (95% Confidence interval %)	Adult viremic prevalence (95% Confidence interval %)	Qualitative assessment score
Bahrain	Ramia, 2012 ^[38]	2000-2010	-	1	-	Hemodialysis patients	Reported as it is	-	9.2	-	-	4
Bahrain	Mohamoud, 2016 ^[59]	Unknown	-	1	51	Hemolytic anemia patients (children)	Reported as it is	1992	40.0	-	-	5
Bahrain	Mohamoud, 2016 ^[59]	Unknown	-	2	21125	Blood donors (mix between Bahraini and Saudi populations, nationals and expatriates)	Meta-analysis	-	0.3 (0.2-0.4)	-	-	5
Bahrain	Mohamoud, 2016 ^[59]	Unknown	-	2	200	Hemodialysis patients (mix between Bahraini and Saudi	Reported as it is	-	7.4-9.2	-	-	5

populations,
nationals and
expatriates)
Mixed population
(blood donors,
pregnant women,
PWID, kidney
transplant,
thalassemic,
hemophiliac, and
hemodialysis
patients)

Bahrain	Ghaderi-Zefrehi, 2016 ^[37]	1995-2016	-	3	-								
Kuwait	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	1	-	General population (adults≥15 years old)	Reported as it is	-	0.8*	-	-	-	4
Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	9	12853	General population (blood donors and outpatients clinic attendee, nationals)	Meta-analysis	-	0.4 (0.3-0.6)	-	-	-	5
Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	22	44772	General population (blood donors, outpatients clinic attendee, and controls of observational	Meta-analysis	-	1.4 (0.8-2.3)	-	-	-	5

studies, nationals and expatriates)												
Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	2	8561	Blood donors (nationals)	Reported as it is	2002	0.8 -1.2	-	-	6
Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	2	4237	Blood donors (expatriates)	Reported as it is	2002	5.4-13.5	-	-	6
Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	2	15053	Blood donors	Reported as it is	1992	1.2-2.4	-	-	6
Kuwait	Ramia, 2012 ^[38]	2000-2010	-	1	-	Blood donors	Reported as it is	-	0.8-5.4	-	-	4
Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	1	1148	Controls in observational studies	Reported as it is	2012	0.5	-	-	6
Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	1	1988	Patients with sexually transmitted disease	Reported as it is	2012	0.9	-	-	6
Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	3	400	Hemodialysis patients	Reported as it is	1992-1995	27.0-71.0	-	-	6
Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	1	129	Thalassemic patients	Reported as it is	1965-1995	33.0	-	-	6
Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	1	111	Patients with chronic liver disease	Reported as it is	-	37.8	-	-	5
Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	5	1314	Patients with diabetes	Reported as it is	-	3.0-18.0	-	-	5

Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	1	33	Patients with lichen planus	Reported as it is	2002-2008	60.6	-	-	5
Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	1	72	Renal transplant patients	Reported as it is	-	5.6	-	-	4
Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	1	117	Healthcare workers	Reported as it is	-	0.9	-	-	5
Kuwait	Ghaderi-Zefrehi, 2016 ^[37]	1995-2016	-	3	-	Mixed population (blood donors, pregnant women, PWID, kidney transplant, thalassemic, hemophiliac, and hemodialysis patients)	-	-	3.1	-	-	3
Oman	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	1	-	General population (adults≥15 years old)	Reported as it is	-	0.5*	-	-	4
Oman	Mohamoud, 2016 ^[59]	Unknown	-	6	64530	General population (blood donors and outpatients of nephrology clinics, nationals and expatriates)	Meta-analysis	-	0.4 (0.3-0.5)	-	-	5
Oman	Mohamoud	Unknown	-	4	63863	Blood donors	Reported as	2006-2011	0.4-0.7	-	-	6

	d, 2016 ^[59]						it is					
Oman	Mohamoud, 2016 ^[59]	Unknown	-	1	564	Blood donors	Reported as it is	-	0.9	-	-	5
Oman	Mohamoud, 2016 ^[59]	Unknown	-	1	512	People who inject drugs	Reported as it is	2011	48.1	-	-	6
Oman	Mohamoud, 2016 ^[59]	Unknown	-	1	102	Hemodialysis patients	Reported as it is	1991	26.5	-	-	6
Oman	Mohamoud, 2016 ^[59]	Unknown	-	1	32	Patients with immune thrombocytopenia	Reported as it is	2006-2011	37.5	-	-	5
Oman	Mohamoud, 2016 ^[59]	Unknown	-	1	103	Outpatients	Reported as it is	1991	1.0	-	-	6
Oman	Mohamoud, 2016 ^[59]	Unknown	-	1	126	Psychiatric patients	Reported as it is	-	16.7	-	-	5
Oman	Mohamoud, 2016 ^[59]	Unknown	-	1	82	Renal transplant patients	Reported as it is	1991	53.7	-	-	5
Oman	Mohamoud, 2016 ^[59]	Unknown	-	1	134	Healthcare workers	Reported as it is	-	0.0	-	-	5
<hr/>												
Qatar	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	3	-	General population (adults≥15 years old)	Reported as it is	2008-2009	0.9 (0.5-1.5)*	-	-	5
Qatar	Mohamoud, 2016 ^[59]	Unknown	-	2	29764	Blood donors (nationals)	Meta-analysis	-	0.5 (0.4-0.6)	-	-	5
Qatar	Mohamoud, 2016 ^[59]	Unknown	-	16	153704	Blood donors (nationals and	Meta-analysis	-	1.1 (0.5-1.8)	-	-	5

						expatriates)						
Qatar	Mohamou d, 2016 ^[59]	Unknown	-	1	130	Hemodialysis patients	Reported as it is	-	44.6	-	-	5
Qatar	Mohamou d, 2016 ^[59]	Unknown	-	1	915	Patients with chronic liver disease	Reported as it is	2000-2005	29.4	-	-	6
Qatar	Mohamou d, 2016 ^[59]	Unknown	-	3	124	Patients with cirrhosis	Reported as it is	2004-2005	19.2-30.6	-	-	6
Qatar	Ramia, 2012 ^[38]	2000-2010	-	1	-	Patients with liver disease	Reported as it is	-	29.4	-	-	4
Qatar	Mohamou d, 2016 ^[59]	Unknown	-	1	100	Patients with lichen planus	Reported as it is	2003-2004	9.0	-	-	6
						Mixed population (blood donors, pregnant women, PWID, kidney transplant, thalassemic, hemophiliac, and hemodialysis patients)						
Qatar	Ghaderi- Zefrehi, 2016 ^[37]	1995-2016	-	1	-		-	-	0.9	-	-	3
<hr/>												
Saudi Arabia	Mohamou d, 2016 ^[59]	Unknown	-	1	1482	General population	Reported as it is	-	1.8	-	-	5
Saudi Arabia	Gower, 2014 ^[6]	2000- Unknown	Sample size>1000	3	-	General population (adults≥15 years	Reported as it is	2011	1.5 (0.6-7.3)*	51.6*	0.7 (0.3-3.8)*	5

						old)						
			Only adults included; first and second generatio n immunoa ssay excluded									
Saudi Arabia	Sievert, 2011 ^[50]	Unknown		-	-	General population (adults)	Reported as it is	-	1.0-1.9*	-	-	3
Saudi Arabia	Mohamou d, 2016 ^[59]	Unknown	-	57	808787	General population (blood donors, outpatients clinic attendees, and others, nationals)	Meta- analysis	-	1.7 (1.4-1.9)	-	-	5
Saudi Arabia	Mohamou d, 2016 ^[59]	Unknown	-	126	999127	General population (population-based survey, blood donors, pre-marital screening, and others, nationals and expatriates)	Meta- analysis	-	1.6 (1.4-1.8)	-	-	5
Saudi Arabia	Mohamou d, 2016 ^[59]	Unknown	-	36	861790	Blood donors (nationals and	Reported as it is	1988-2009	0.0-5.6	20.0	-	6

						expatriates)						
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	15	88362	Blood donors (nationals)	Reported as it is	1990-2009	0.4-4.2	20.0	-	6
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	35	18247	Blood donors (expatriates)	Reported as it is	1990-2002	0.0-34.0	20.0	-	6
Saudi Arabia	Ramia, 2012 ^[38]	2000-2010	-	-	-	Blood donors	Reported as it is	-	0.4-1.2	-	-	3
			Only adults included; first and second generation immunosay excluded									
Saudi Arabia	Sievert, 2011 ^[50]	Unknown		3	>557813	Blood donors	Reported as it is	-	0.6-1.1*	-	-	5
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	4	5010	Pregnant women	Reported as it is	1989-2002	0.1-4.6	-	-	6
Saudi Arabia	Gasim, 2013 ^[44]	Unknown	-	1	-	Pregnant women	Reported as it is	-	0.7	-	-	4
Saudi Arabia	Ramia, 2012 ^[38]	2000-2010	-	-	-	Pregnant women	Reported as it is	-	0.7	-	-	3
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	7	8384	Children	Reported as it is	1989-2002	0.7-1.8	-		6

Saudi Arabia	Sievert, 2011 ^[50]	Unknown	Only adults included; first and second generation immunoassay excluded	2	-	Children	Reported as it is	-	0.1-0.9*	-	-	4
Saudi Arabia	Ramia, 2012 ^[38]	2000-2010	-	-	-	Healthy individuals	Reported as it is	-	1.6	-	-	3
Saudi Arabia	Sievert, 2011 ^[50]	Unknown	Only adults included; first and second generation immunoassay excluded	1	-	Healthy individuals	Reported as it is	-	5.3*	-	-	4
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	4	84937	Screened adults (pre-employment and pre-marital)	Reported as it is	2008-2010	0.2-0.6	100	-	6

Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	2	218	Contacts of HCV patients	Reported as it is	-	0.0-1.6	-	-	5
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	2	560	People who are drug users (non-injecting)	Reported as it is	1995-1996	6.1-10.5	-	-	6
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	3	10137	People who inject drugs and other drug users	Reported as it is	1995-2004	14.4-54.7	-	-	6
Saudi Arabia	Ramia, 2012 ^[38]	2000-2010	-	4	-	People who inject drugs	Reported as it is	-	14.0-75.0	-	-	4
Saudi Arabia	Nelson, 2011 ^[34]	Inception-2011	-	-	-	People who inject drugs	Reported as it is	-	14.1-85.4	-	-	3
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	2	561	Patients with sexually transmitted disease	Reported as it is	1985-2010	12.0-15.9	-	-	6
Saudi Arabia	Sievert, 2011 ^[50]	Unknown	Only adults included; first and second generation immunoassay excluded	1	-	Patients with sexually transmitted disease	Reported as it is	-	15.9*	-	-	4

Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	18	38660	Hemodialysis patients	Reported as it is	1995-2008	14.7-78.2	-	-	6
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	20	4270	Hemodialysis patients	Reported as it is	1980-1996	6.9-84.6	-	-	6
Saudi Arabia	Ramia, 2012 ^[38]	2000-2010	-	-	-	Hemodialysis patients	Reported as it is	-	55.7	-	-	3
			Only adults included; first and second generation immunosay excluded									
Saudi Arabia	Sievert, 2011 ^[50]	Unknown	-	7	-	Hemodialysis patients	Reported as it is	-	14.7-68.0*	-	-	4
Saudi Arabia	Ramia, 2012 ^[38]	2000-2010	-	-	-	Renal dialysis	Reported as it is	-	20.5	-	-	3
Saudi Arabia	Alavian, 2012 ^[32]	Inception-2011	-	1	28	Hemophiliac patients	Reported as it is	-	78.6 (63.4-93.8)	-	-	4
			Only adults included; first and second									
Saudi Arabia	Sievert, 2011 ^[50]	Unknown	-	1	-	Hemophiliac patients	Reported as it is	-	78.6*	-	-	4

			generation	n	immunoassay	excluded						
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	5	160	Multi-transfused patients	Reported as it is	1990-2011	4.6-78.6	-	-	6
Saudi Arabia	Ramia, 2012 ^[38]	2000-2010	-	-	-	Multi-transfused patients	Reported as it is	-	10.8	-	-	3
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	4	214	Thalassemic patients	Reported as it is	1990-2000	12.7-70.0	-	-	6
			Only adults included; first and second generation									
Saudi Arabia	Sievert, 2011 ^[50]	Unknown	-	1	-	Thalassemic patients	Reported as it is	-	33.3*	-	-	4
			immunoassay excluded									
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	1	39	Schistosomiasis patients	Reported as it is	1999-2000	17.9	-	-	5
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	3	29326	Acute viral hepatitis patients	Reported as it is	2000-2005	3.4-40.7	-	-	6

Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	9	16675	Acute viral hepatitis patients	Reported as it is	1987-2000	0.0-74.4	-	-	6
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	7	1090	Patients with chronic liver disease	Reported as it is	1989-2004	11.9-65.0	-	-	6
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	3	194	Patients with cirrhosis	Reported as it is	1993-2002	9.3-80.0	-	-	6
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	8	498	Patients with hepatocellular carcinoma	Reported as it is	1993-2002	4.4-60.0	-	-	6
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	1	206	Patients with hepatocellular carcinoma	Reported as it is	2006-2008	48.5	-	-	6
Saudi Arabia	Alavian, 2016 ^[36]	1989-2015	Sample size≥20, HCV testing>1st Generation	4	474	Patients with hepatocellular carcinoma	Pooling	-	40.3	-	-	4
Saudi Arabia	de Martel, 2015 ^[47]	1989-2014	Sample size≥20, HCV testing>	3	420	Patients with hepatocellular carcinoma	Proportion	-	36.9	-	-	5

		ELISA		1st		Generati		on							
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	1	15323	Outpatients	Reported as it is	2008-2011	7.3	-	-	-	-	6	
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	2	3447	Patients	Reported as it is	1998-2005	0.2-6.7	-	-	-	-	6	
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	5	766	Patients with cancer	Reported as it is	1996-2004	0.0-21.0	-	-	-	-	6	
Saudi Arabia	Ramia, 2012 ^[38]	2000-2010	-	-	-	Patients with non-Hodgkin lymphoma	Reported as it is	-	12.0	-	-	-	-	3	
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	3	559	Renal transplant patients	Reported as it is	1979-2001	8.5-63.8	-	-	-	-	6	
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	2	433	Healthcare workers	Reported as it is	2001-2005	0.0-0.3	-	-	-	-	6	
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	4	1103	Healthcare workers	Reported as it is	1992-1994	0.6-2.4	-	-	-	-	6	
Saudi Arabia	Ramia, 2012 ^[38]	2000-2010	-	-	-	Healthcare workers	Reported as it is	-	2.0	-	-	-	-	3	
Saudi Arabia	Ghaderi-Zefrehi, 2016 ^[37]	1995-2016	-	22	-	Mixed population (blood donors, pregnant women, PWID, kidney	-	-	1.5	-	-	-	-	3	

transplant,
thalassemic,
hemophiliac, and
hemodialysis
patients)

United Arab Emirates	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	1	-	General population (adults≥15 years old)	Reported as it is	-	0.1*	68.0*	-	4
United Arab Emirates	Mohamoud, 2016 ^[59]	Unknown	-	11	290778	General population (including blood donors, nationals and expatriates)	Meta-analysis	-	1.6 (1.0-2.5)	-	-	5
United Arab Emirates	Mohamoud, 2016 ^[59]	Unknown	-	2	1432	General population (including blood donors, nationals)	Meta-analysis	-	0.2 (0.02-0.6)	-	-	5
United Arab Emirates	Mohamoud, 2016 ^[59]	Unknown	-	2	268375	Blood donors	Reported as it is	2004-2009	0.5-1.1	-	-	6
United Arab Emirates	Mohamoud, 2016 ^[59]	Unknown	-	2	1198	Pregnant women (expatriates)	Reported as it is	1994-1996	13.0-13.5	-	-	6
United Arab Emirates	Ramia, 2012 ^[38]	2000-2010	-	1	-	Healthy individuals	-	-	27.5	-	-	3
United Arab Emirates	Mohamoud	Unknown	-	3	1571	Healthy	Reported as	2008-2012	0.0-3.6	-	-	6

Arab Emirates	d, 2016 ^[59]					individuals and college students	it is					
United Arab Emirates	Mohamoud, 2016 ^[59]	Unknown	-	2	1194	Screened adults (pre-employment screening including Egyptian)	Reported as it is	2005	0.8-4.5	-	-	6
United Arab Emirates	Mohamoud, 2016 ^[59]	Unknown	-	1	18379	Screened adults (pre-marital)	Reported as it is	2011	0.5	-	-	6
United Arab Emirates	Mohamoud, 2016 ^[59]	Unknown	-	1	224	Contacts of HCV patients	Reported as it is	1994-1996	27.0	-	-	6
United Arab Emirates	Mohamoud, 2016 ^[59]	Unknown	-	1	262	Hemodialysis patients	Reported as it is	1991-1993	24.4	-	-	6
United Arab Emirates	Mohamoud, 2016 ^[59]	Unknown	-	1	16	Thalassemic patients	Reported as it is	1990-2001	18.8	-	-	5
United Arab Emirates	Mohamoud, 2016 ^[59]	Unknown	-	1	165	Acute viral hepatitis patients	Reported as it is	2006-2007	1.2	-	-	6
United Arab Emirates	Mohamoud, 2016 ^[59]	Unknown	-	1	142	Patients with chronic liver disease	Reported as it is	-	43.7	-	-	5
United	Ramia,	2000-2010	-	1	-	Patients with	-	-	43.7	-	-	3

Arab Emirates	2012 ^[38]					chronic liver disease Mixed population (blood donors, pregnant women, PWID, kidney transplant, thalassemic, hemophiliac, and hemodialysis patients)						
United Arab Emirates	Ghaderi- Zefrehi, 2016 ^[37]	1995-2016	-	2	-		-	-	2.3	-	-	3
Yemen	Chaabna, 2016 ^[27]	Inception- 2015	Sample size>15	4	685	General population	Reported as it is	1992-2002	0.0-5.0	-	-	6
Yemen	Gower, 2014 ^[6]	2000- Unknown	Sample size>1000	3	-	General population (adults≥15 years old)	Age- adjustment	2010-2011	2.2 (1.1-3.5)*	-	-	4
Yemen	Chaabna, 2016 ^[27]	Inception- 2015	Sample size>15	24	48344	General population (including blood donors)	Meta- analysis	1992-2011	1.9 (1.4-2.6)	-	-	6
Yemen	Chaabna, 2016 ^[27]	Inception- 2015	Sample size>15	11	15592	Blood donors	Reported as it is	1992-2002	0.2-3.0	-	-	6
Yemen	Ramia, 2012 ^[38]	2000-2010	-	-	-	Blood donors	Reported as it is	-	0.5-5.1	-	-	3
Yemen	Bajubair, 2008 ^[63]	2000-2005	-	-	-	Blood donors	Meta- analysis	2005	1.7	-	-	4

Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	2	643	Pregnant women	Reported as it is	2011	3.3-8.5	-	-	6
Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	51	Pregnant women and blood donors	Reported as it is	1988-1990	3.9	-	-	5
Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	141	Children	Reported as it is	2007-2009	2.1	-	-	6
Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	593	African migrant community living in a shantytown	Reported as it is	1999-2002	1.3	-	-	6
Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	2	28384	Controls in observational studies	Reported as it is	1988-2007	3.5-4.3	-	-	6
Yemen	Bajubair, 2008 ^[63]	2000-2005	-	-	-	Healthy carries	Meta-analysis	2005	2.7	-	-	4
Yemen	Bajubair, 2008 ^[63]	2000-2005	-	3	-	Healthy carries and blood donors (Aden)	Meta-analysis	2005	0.6	-	-	5
Yemen	Bajubair, 2008 ^[63]	2000-2005	-	-	-	Healthy carries and blood donors (Hajah)	Meta-analysis	2005	0.8	-	-	4
Yemen	Bajubair, 2008 ^[63]	2000-2005	-	-	-	Healthy carries and blood donors (Sanaa)	Meta-analysis	2005	2.4	-	-	4
Yemen	Bajubair, 2008 ^[63]	2000-2005	-	2	-	Healthy carries and blood donors	Meta-analysis	2005	5.1	-	-	5

						(Soqotra)						
Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	2379	Healthy individuals	Reported as it is	2010-2011	1.3	-	-	6
Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	348	Healthy individuals	Reported as it is	1988	6.0	-	-	6
Yemen	Ramia, 2012 ^[38]	2000-2010	-	-	-	Healthy individuals	Reported as it is	-	1.7	-	-	3
Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	3	300	High risk population (hemodialysis patients)	Reported as it is	1997-2013	40.0-62.7	-	-	6
Yemen	Ramia, 2012 ^[38]	2000-2010	-	-	-	Dialysis patients	Reported as it is	-	33.8	-	-	3
Yemen	Bajubair, 2008 ^[63]	2000-2005	-	2	-	Dialysis patients	Meta-analysis	2005	33.8	-	-	5
Yemen	Ramia, 2012 ^[38]	2000-2010	-	-	-	Patients referred to HCV testing	Reported as it is	-	0.8	-	-	3
Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	2	827	Acute hepatitis and liver disease patients	Reported as it is	1997-1999	6.4-8.8	-	-	6
Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	3	460	Patients with acute and chronic liver disease	Reported as it is	2007	17.9-37.1	-	-	6
Yemen	Ramia, 2012 ^[38]	2000-2010	-	-	-	Patients with chronic liver	Reported as it is	-	33.8	-	-	3

						disease						
Yemen	Ramia, 2012 ^[38]	2000-2010	-	-	-	Patients with liver disease	Reported as it is	-	37.1	-	-	3
Yemen	Bajubair, 2008 ^[63]	2000-2005	-	3	-	Patients with liver disease	Meta-analysis	2005	33.8	-	-	5
Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	3	393	Patients with hepatocellular carcinoma	Reported as it is	2001-2010	28.4-38.2	-	-	6
Yemen	Alavian, 2016 ^[36]	1989-2015	Sample size≥20, HCV testing> ELISA 1st Generation	2	339	Patients with hepatocellular carcinoma	Pooling	-	33.0	-	-	4
Yemen	de Martel, 2015 ^[47]	1989-2014	Sample size≥20, HCV testing> ELISA 1st Generation	2	1783	Patients with hepatocellular carcinoma	Proportion	-	33.0	-	-	5
Yemen	Chaabna,	Inception-	Sample	3	641	Patients with	Reported as	2005-2011	8.0-17.6	-	-	6

	2016 ^[27]	2015	size>15			cancer	it is					
Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	117	Patients with leprosy	Reported as it is	1988-1990	21.0	-	-	6
Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	1	394	Surgical patients	Reported as it is	2009-2011	14.2	-	-	6
Yemen	Ramia, 2012 ^[38]	2000-2010	-	-	-	Healthcare workers	Reported as it is	-	1.1-3.5	-	-	3
Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	3	1322	Intermediate risk populations (healthcare workers and hospital employees)	Reported as it is	1997-1999	0.5-3.5	-		6
Yemen	Ghaderi-Zefrehi, 2016 ^[37]	1995-2016	-	2	-	Mixed population (blood donors, pregnant women, PWID, kidney transplant, thalassemic, hemophiliac, and hemodialysis patients)	-	-	2.2	-	-	3
Yemen	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	13	2832	Special clinical populations (acute and chronic liver disease, cancer,	Meta-analysis	1988-2011	19.4 (13.0-26.6)	-	-	6

hepatocellular
carcinoma,
surgical, and
leprosy patients
and patients in
surgical
department)

Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	5	10218	General population	Reported as it is	2004-2012	0.0-4.0	-	-	6
Iraq	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	2	-	General population (adults≥15 years old)	Reported as it is	2002	3.2 (0.3-3.2)*	-	-	5
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	99	1859563	General population (including blood donors)	Meta-analysis	1999-2012	0.2 (0.1-0.3)	-	-	6
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	21	1647006	Blood donors	Reported as it is	2003-2013	0.0-2.8	-	-	6
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	2	62248	Blood donors	Reported as it is	1996-2001	0.1-0.8	-	-	6
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	5	5046	Pregnant women	Reported as it is	2004-2010	0.0-5.1	-	-	6
Iraq	Gasim, 2013 ^[44]	Unknown	-	1	-	Pregnant women	Reported as it is	-	3.2	-	-	4
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	2	385	Children	Reported as it is	2007-2009	0.0	-	-	6

Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	2	4419	New employees	Reported as it is	1999-2006	0.4-2.6	-	-	6
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	2	919	Contacts of HCV patients	Reported as it is	1996-2001	1.2-1.4	-	-	6
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	566	Barbers	Reported as it is	1999-2001	0.3	-	-	6
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	625	Prisoners	Reported as it is	1996-2001	0.6	-	-	6
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	2	927	Refugees	Reported as it is	2011	0.1-0.3	-	-	6
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	163	Patients with sexually transmitted disease	Reported as it is	-	1.2	-	-	5
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	9	1223	Hemodialysis patients	Reported as it is	2002-2011	4.9-42.6	-	-	6
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	95	Hemodialysis patients	Reported as it is	1999-2001	0.0	-	-	5
Iraq	Ramia, 2012 ^[38]	2000-2010	-	-	-	Hemodialysis patients	Reported as it is	-	7.1	-	-	3
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	3	503	Hemophiliac and other bleeding disorder patients	Reported as it is	2006-2012	6.7-40.3	-	-	6
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	100	Hemophiliac patients	Reported as it is	1997-2004	25.0	-	-	6
Iraq	Alavian,	Inception-	-	2	290	Hemophiliac	Meta-	-	52.4	-	-	5

	2012 ^[32]	2011				patients	analysis		(27.3-77.6)			
Iraq	Chemaitel ly, 2015 ^[33]	1989-2015	Sample size>25	2	379	Multi-transfused patients	Reported as it is	2004-2008	3.4-4.5	-	-	6
Iraq	Chemaitel ly, 2015 ^[33]	1989-2015	Sample size>25	15	3044	Thalassemic patients	Reported as it is	2003-2012	4.0-46.0	-	-	6
Iraq	Chemaitel ly, 2015 ^[33]	1989-2015	Sample size>25	5	1168	Thalassemic patients	Reported as it is	1996-2001	8.0-67.2	-	-	6
Iraq	Ramia, 2012 ^[38]	2000-2010	-	-	-	Thalassemic patients	Reported as it is	-	67.3	-	-	3
Iraq	Chemaitel ly, 2015 ^[33]	1989-2015	Sample size>25	8	12551	Acute hepatitis and liver disease patients	Reported as it is	2007-2011	0.0-71.9	-	-	6
Iraq	Chemaitel ly, 2015 ^[33]	1989-2015	Sample size>25	1	875	Acute hepatitis patients	Reported as it is	1999-2001	3.4	-	-	6
Iraq	Chemaitel ly, 2015 ^[33]	1989-2015	Sample size>25	4	2145	Patients with chronic liver disease	Reported as it is	2005-2009	3.8-62.0	-	-	6
Iraq	Chemaitel ly, 2015 ^[33]	1989-2015	Sample size>25	1	65	Patients with hepatocellular carcinoma	Reported as it is	2000-2003	26.1	-	-	5
Iraq	Chemaitel ly, 2015 ^[33]	1989-2015	Sample size>25	2	1780	Inpatients	Reported as it is	2008-2013	2.5-14.0	-	-	6
Iraq	Chemaitel ly, 2015 ^[33]	1989-2015	Sample size>25	3	5018	Outpatients	Reported as it is	2006-2011	0.0-0.9	-	-	6
Iraq	Chemaitel	1989-2015	Sample	1	200	Outpatients	Reported as	1998-1999	0.5	-	-	6

	ly, 2015 ^[33]		size>25				it is					
Iraq	Chemaitel ly, 2015 ^[33]	1989-2015	Sample size>25	4	375	Patients with cancer	Reported as it is	2000-2009	0.0-11.0	-	-	6
Iraq	Chemaitel ly, 2015 ^[33]	1989-2015	Sample size>25	1	54	Patients with type 1 diabetes mellitus	Reported as it is	-	35.1	-	-	4
Iraq	Chemaitel ly, 2015 ^[33]	1989-2015	Sample size>25	5	1119	Healthcare workers	Reported as it is	2002-2010	0.0-9.1	-	-	6
Iraq	Chemaitel ly, 2015 ^[33]	1989-2015	Sample size>25	5	3104	Healthcare workers	Reported as it is	1995-2001	0.0-1.5	-	-	6
						Mixed population (blood donors, pregnant women, PWID, kidney transplant, thalassemic, hemophiliac, and hemodialysis patients)						
Iraq	Ghaderi- Zefrehi, 2016 ^[37]	1995-2016	-	9	-	Population at high risk (hemodialysis, multitransfused, and thalassemic patients)	-	-	3.2	-	-	3
Iraq	Chemaitel ly, 2015 ^[33]	1989-2015	Sample size>25	58	6707		Meta- analysis	1996-2013	19.5 (14.9-24.5)	-	-	6

						Population at intermediate risk (healthcare workers, diabetes patients, inpatients, barbers, prisoners, patients with sexually transmitted infections, household contact of index patients)						
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	28	8398	Special clinical populations (acute and chronic liver disease, cancer, chronic renal failure, skin disease, hepatocellular carcinoma, rheumatoid arthritis, liver failure, jaundice, proteinuria, and	Meta-analysis	1995-2013	1.5 (0.7-2.5)	-	-	6
Iraq	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	45	18845		Meta-analysis	1996-2012	5.0 (3.4-6.9)	-	-	6

thyroid disorder
patients, and
pregnant women
with high risk of
delivery
complications)

Jordan	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	12	126152	General population (blood donors and outpatients)	Meta-analysis	2003-2011	0.3 (0.1-0.5)	-	-	6
Jordan	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	4	125446	Blood donors	Reported as it is	2003-2011	0.1-0.9	-	-	6
Jordan	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	5	2457	Hemodialysis patients	Reported as it is	2003-2008	21.0-49.8	-	-	6
Jordan	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	273	Hemodialysis patients	Reported as it is	1994	24.5	-	-	6
Jordan	Ramia, 2012 ^[38]	2000-2010	-	4	-	Hemodialysis patients	Reported as it is	-	28.0-34.6	-	-	4
Jordan	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	143	Hemolytic anemia patients	Reported as it is	1998-1999	40.5	-	-	6
Jordan	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	122	Thalassemic patients	Reported as it is	2008	32.8	-	-	6
Jordan	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	706	Outpatients	Reported as it is	-	0.4	-	-	5
Jordan	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	152	Population at intermediate risk	Meta-analysis	1999	0.7	-	-	6

Jordan	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	12	2888	(healthcare workers) Population at high risk (hemodialysis and thalassemic patients)	Meta-analysis	1994-2008	37.0 (29.3-45.0)	-	-	6
Jordan	Ghaderi-Zefrehi, 2016 ^[37]	1995-2016	-	3	-	Mixed population (blood donors, pregnant women, PWID, kidney transplant, thalassemic, hemophiliac, and hemodialysis patients)	-	-	2.1	-	-	3
Lebanon	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	2	2982	General population (nationals and immigrants)	Reported as it is	-	0.6-2.9	-	-	5
Lebanon	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	2	-	General population (adults≥15 years old)	Reported as it is	-	0.4*	-	-	4
Lebanon	Ramia, 2012 ^[38]	2000-2010	-	-	-	General population	Reported as it is	-	0.7	-	-	3
Lebanon	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	16	38059	General population (including blood	Meta-analysis	1993-2003	0.2 (0.1-0.3)	-	-	6

donors)												
Lebanon	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	9	34455	Blood donors	Reported as it is	<2003	0.0-3.4	-	-	6
Lebanon	Ramia, 2012 ^[38]	2000-2010	-	-	-	Blood donors	Reported as it is	-	0.4-0.6	-	-	3
Lebanon	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	103	Female sex workers	Reported as it is	2007-2008	0.0	-	-	6
Lebanon	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	101	Men who have sex with men	Reported as it is	2007-2008	0.0	-	-	6
Lebanon	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	106	People who inject drugs	Reported as it is	2007-2008	52.8	-	-	6
Lebanon	Ramia, 2012 ^[38]	2000-2010	-	2	-	People who inject drugs	Reported as it is	-	5.0-52.8	-	-	4
Lebanon	Nelson, 2011 ^[34]	Inception-2011	-	-	-	People who inject drugs	Reported as it is	-	5.0-52.8	-	-	3
Lebanon	Ramia, 2012 ^[38]	2000-2010	-	-	-	Prisoners	Reported as it is	-	3.4	-	-	3
Lebanon	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	90	HIV-infected patients	Reported as it is	-	7.7	-	-	4
Lebanon	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	2	425	Hemodialysis patients	Reported as it is	-	16.0-27.0	-	-	5
Lebanon	Ramia, 2012 ^[38]	2000-2010	-	-	-	Hemophiliac patients	Reported as it is	-	10.0	-	-	3
Lebanon	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	2	595	Thalassemic patients	Reported as it is	>1999	0.0-14.0	-	-	6

Lebanon	Ramia, 2012 ^[38]	2000-2010	-	-	-	Patients with cancer	Reported as it is	-	4.6	-	-	3
Lebanon	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	500	Healthcare workers	Reported as it is	1999	0.4	-	-	6
Lebanon	Ramia, 2012 ^[38]	2000-2010	-	-	-	Healthcare workers	Reported as it is	-	0.4	-	-	3
Lebanon	Ghaderi-Zefrehi, 2016 ^[37]	1995-2016	-	5	-	Mixed population (blood donors, pregnant women, PWID, kidney transplant, thalassemic, hemophiliac, and hemodialysis patients)	-	-	0.7	-	-	3
Lebanon	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	10	1309	Population at high risk (hemodialysis, multi-transfused, and thalassemic patients and PWID)	Meta-analysis	1999-2008	14.5 (5.6-26.5)	-	-	6
Lebanon	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	7	1050	Population at intermediate risk (healthcare workers, men who have sex with men,	Meta-analysis	1999-2008	1.2 (0.1-3.3)	-	-	6

sex workers,
prisoners, HIV-
infected patients)

Palestine	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	53	337384	General population (blood donors and outpatients)	Meta-analysis	1999-2013	0.2 (0.2-0.3)	-	-	6
Palestine	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	8	332967	Blood donors	Reported as it is	2003-2013	0.2-0.3	-	-	6
Palestine	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	2	4293	Blood donors	Reported as it is	1999-2002	2.2-3.9	-	-	6
Palestine	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	199	People who inject drugs	Reported as it is	2010	45.2	-	-	6
Palestine	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	2	392	Hemodialysis patients	Reported as it is	2007-2013	17.9-27.4	-	-	6
Palestine	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	124	Outpatients	Reported as it is	-	9.0	-	-	5
Palestine	Ghaderi-Zefrehi, 2016 ^[37]	1995-2016	-	2	-	Mixed population (blood donors, pregnant women, PWID, kidney transplant, thalassemic, hemophiliac, and hemodialysis patients)	-	-	2.2	-	-	3

Palestine	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	3	49663	Mixed populations (patients and contacts)	Reported as it is	2003-2011	1.7-4.6	-	-	6
Syria	Bashour, 2016 ^[91]	Unknown	-	1	3168	General population	Reported as it is	2004	2.8	-	-	6
Syria	Bashour, 2016 ^[91]	Unknown	-	1	-	General population (Aleppo)	Reported as it is	2004	10.1	-	-	5
Syria	Bashour, 2016 ^[91]	Unknown	-	1	763	General population (Deir Zour)	Reported as it is	2005-2006	2.1	-	-	6
Syria	Bashour, 2016 ^[91]	Unknown	-	1	1217	General population (Hassakeh)	Reported as it is	2005-2006	1.6	-	-	6
Syria	Gower, 2014 ^[6]	2000-Unknown	Sample size>1000	1	-	General population (adults≥15 years old)	Reported as it is	-	1.0*	-	-	4
Syria	Sievert, 2011 ^[50]	Unknown	Only adults included; first and second generation immunoassay excluded	-	-	General population (adults)	Reported as it is	2004	1.0-1.9*	-	-	4
Syria	Chemaitelly	1989-2015	Sample	17	1114550	General population	Meta-	2000-2011	0.4	-	-	6

	ly, 2015 ^[33]		size>25			(blood donors)	analysis		(0.4-0.5)			
Syria	Bashour, 2016 ^[91]	Unknown	-	-	-	Blood donors	Reported as it is	2003-2014	0.2-0.9	-	-	4
Syria	Ramia, 2012 ^[38]	2000-2010	-	-	-	Blood donors	Reported as it is	-	1.0	-	-	3
Syria	Bashour, 2016 ^[91]	Unknown	-	1	-	Premarital screening	Reported as it is	2011-2014	0.05-0.1	-	-	5
Syria	Bashour, 2016 ^[91]	Unknown	-	1	-	Sex workers	Reported as it is	-	2.0	-	-	4
Syria	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	102	Female sex workers	Reported as it is	-	2.0	-	-	5
Syria	Ramia, 2012 ^[38]	2000-2010	-	-	-	Female sex workers	Reported as it is	-	2.0	-	-	3
Syria	Bashour, 2016 ^[91]	Unknown	-	1	-	People who inject drugs	Reported as it is	-	60.5	-	-	4
Syria	Ramia, 2012 ^[38]	2000-2010	-	1	-	People who inject drugs	Reported as it is	-	60.5	-	-	4
Syria	Nelson, 2011 ^[34]	Inception-2011	-	1	-	People who inject drugs	Reported as it is	-	60.5	-	-	4
			Only adults									
Syria	Sievert, 2011 ^[50]	Unknown	included; first and second generatio	1	-	People who inject drugs	Reported as it is	-	60.5*	-	-	4

		n		immunoassay		excluded							
Syria	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	336	People who inject drugs and other drug users	Reported as it is	2006	21.0	-	-	6	
Syria	Bashour, 2016 ^[91]	Unknown	-	1	139	Hemodialysis patients (Damascus)	Reported as it is	-	48.9	-	-	5	
Syria	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	550	Hemodialysis patients	Reported as it is	2006	54.4	-	-	6	
Syria	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	2	259	Hemodialysis patients	Reported as it is	1996	48.9-75.0	-	-	6	
Syria	Ramia, 2012 ^[38]	2000-2010	-	-	-	Hemodialysis patients	Reported as it is	-	48.9-54.4	-	-	3	
Syria	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	375	Hemophiliac patients	Reported as it is	2007-2011	20.5	-	-	6	
Syria	Bashour, 2016 ^[91]	Unknown	-	1	75	Multi-transfused children with hematological disease (Damascus)	Reported as it is	2000	13.3	-	-	5	
Syria	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	1	193	Acute viral hepatitis patients	Reported as it is	1995-1998	1.0	-	-	6	
Syria	Bashour,	Unknown	-	1	-	Healthcare workers	Reported as	-	3.0-5.8	-	-	4	

Syria	2016 ^[91] Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	2	589	Healthcare workers	Reported as it is	-	3.0-3.8	-		5
Syria	Ramia, 2012 ^[38]	2000-2010	-	-	-	Healthcare workers	Reported as it is	-	3.0	-	-	3
Syria	Sievert, 2011 ^[50]	Unknown	Only adults included; first and second generation immunosay excluded	2	-	Healthcare workers	Reported as it is	-	3.0*	-	-	4
Syria	Ghaderi-Zefrehi, 2016 ^[37]	1995-2016	-	2	-	Mixed population (blood donors, pregnant women, PWID, kidney transplant, thalassemic, hemophiliac, and hemodialysis patients)	-	-	0.5	-	-	3

Syria	Chemaitelly, 2015 ^[33]	1989-2015	Sample size>25	8	1279	Population at high risk (hemodialysis and hemophilia patients and drug users including PWID)	Meta-analysis	1996-2011	47.4 (32.5-62.5)	-	-	6
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Supplementary material 8: Hepatitis C antibody prevalence in MENA, summary points

Population	Summary points
Blood donors	<ul style="list-style-type: none">• The estimated anti-HCV prevalence in each country was lower in blood donors than in the corresponding GP.• Exception: in Lebanon, Libya, Egypt, and Pakistan, some studies reported a higher anti-HCV prevalence in blood donors than in the corresponding GP.• In Egypt, anti-HCV prevalence in blood donors was 5.2-35.4% in 1990-1999^[61] and 1.7-16.8% in 2006-2009^[61], while in Pakistan, it was 0.5%-6.5% in 1995-2000^[53] and 0.2-8.6% in 2000-2006^[53].• In Palestine, anti-HCV prevalence appears to have decreased from 2.2-3.9% in 1999-2002^[33] to 0.2-0.3% in 2003-2013^[33].• In the Gulf Nations, anti-HCV prevalence in migrant blood donors appeared to be higher than that in national blood donors:<ul style="list-style-type: none">- in Kuwait, 5.4-13.5% in 2002 <i>versus</i> 0.8-1.2% in 2002- in Saudi Arabia, 0.0-34.0% in 1990-2002 <i>versus</i> 0.4-4.2% in 1990-2009 in Saudi Arabia) and• In the Gulf Nations, anti-HCV prevalence in migrant blood donors appeared to be higher than that in the GP: in Qatar, 0.5% in national blood donors [study dates not reported], 0.9% in the GP [2008-2009], and 1.1% [study dates not reported] in national and migrant blood donors.• Bahrain was the only country without any identified measurement of prevalence in blood donors.
Pregnant women	<ul style="list-style-type: none">• While the anti-HCV prevalence was similar to that identified for the GP in Libya and Pakistan, the prevalence was lower than that in the GP in Algeria, Egypt, Morocco, Sudan, and Tunisia and was higher than that in the GP in Iraq, Saudi Arabia, UAE, and Yemen.• In Algeria, the anti-HCV prevalence in pregnant women was 0.2% in 1992-1993^[52] and 0.6% in 2008^[52].

	<ul style="list-style-type: none"> • In Pakistan, the prevalence in pregnant women appears to have decreased from 6.4% in 1997^[53] to 5.3% in 2001-2006^[62]. • In the UAE, the prevalence in pregnant women of 13.0%-13.4% (1994-1996) was measured in migrants^[59].
Children	<ul style="list-style-type: none"> • Few countries reported the anti-HCV prevalence in children. • The most up-to-date prevalences with the best quality was 2.1-5.8% in Egypt (2002-2005)^[61], 0.0% in Iraq (2007-2009)^[33], 1.7% in Pakistan (study dates not reported)^[40], 0.7-1.8% in Saudi Arabia (1989-2002), and 2.1% in Yemen (2007-2009)^[27]. • For all countries, the anti-HCV prevalence reported in children was lower than that in the GP.
Patients with acute or chronic liver disease (CLD) or hepatocellular carcinoma (HCC)	<ul style="list-style-type: none"> • A substantial proportion of patients with acute liver disease or CLD and HCC were infected with HCV. The highest proportion was observed in Egypt (85.9% in HCC patients, 1997-2004) and in Tunisia (80.5% in CLD patients, 2005-2008). This suggests that HCV infection is one of the leading etiological causes of liver disease in MENA countries.
Patients undergoing hemodialysis	<ul style="list-style-type: none"> • Anti-HCV prevalence in Libya was 20.5-42.5% prior to 2001^[52] and 32.3% in 2009-2010^[52]; in Morocco, it was 35.1-76.0% in 1983-2002^[52] and 54.1-68.3% in 2003-2004^[52]; and in Jordan, it was 24.5% in 1994^[33] and 21.0-49.8% in 2003-2008^[33]. • Anti-HCV prevalence appears to have decreased in Tunisia from 42.0-46.5% prior to 2000^[52] to 14.6-32.6% in 2000-2003^[52] and in Syria from 48.9-75.0% in 1996^[33] to 21.0% in 2006^[33], while in Egypt it appears to have remained constant (46.2-87.5% in 1990-2000^[61] and 46.2-100% in 2002-2009^[61]). • In Iraq, Anti-HCV prevalence appears to have increased from 0.0% in 1999-2001^[33] to 4.9-42.6% in 2002-2011^[33].
Healthcare workers	<ul style="list-style-type: none"> • Anti-HCV prevalences in Iraq (0.0-9.1% in 2002-2010), Libya (2.0-6.8% in 1992-2001), and Syria (3.0-3.8%, study dates not reported) were higher than those in the GP. This may suggest that in these countries, HCV transmission may also be due to

	<p>occupational exposure.</p> <ul style="list-style-type: none"> • Anti-HCV prevalences in Lebanon (0.4% in 1999), Oman (0.0%, study dates not reported), Saudi Arabia (0.0-0.3% in 2001-2005), Sudan (0.0% in 2005-2007), and Tunisia (1.0% in 2005) were lower than those in the GP. • Anti-HCV prevalences in Kuwait (0.9%, study dates not reported), Pakistan (5.6-6.0% in 2001-2002), and Yemen (1.1%-3.5%, study dates not reported), were similar to those observed in the GP. • It is noteworthy that in Saudi Arabia and Sudan, the prevalence of anti-HCV in healthcare workers appears to have decreased from 0.6-2.4% in 1992-1994^[59] to 0.0-0.3% in 2001-2005^[59] and from 5.4% in 1994^[27] to 0.0% in 2005-2007^[27], respectively. • Anti-HCV prevalence data in healthcare workers were missing for Algeria, Bahrain, Djibouti, Egypt, Morocco, Palestine, Qatar, and the UAE.
Contacts of HCV-infected patients	<ul style="list-style-type: none"> • Anti-HCV prevalences in Pakistan (4.3-38.0% in 2000-2004) and the UAE (27.0% in 1994-1996), were higher than those in the GP, • Anti-HCV prevalence in Iraq (1.2-1.4% in 1996-2001) the prevalence estimates appeared to be similar.
Barbers	<ul style="list-style-type: none"> • Anti-HCV prevalence (1.1-5.0% in 2001-2007) in Morocco, was higher than that in the GP. • Anti-HCV prevalence in Iraq was similar (0.3% in 1999-2001) to anti-HCV prevalence in the GP • Anti-HCV prevalence In Egypt (12.3%, study dates not reported) was lower in barbers than in the GP.
People who inject drugs (PWID)	<ul style="list-style-type: none"> • In Egypt, Lebanon, Libya, Morocco, Oman, Pakistan, Palestine, Saudi Arabia, Syria, and Tunisia, anti-HCV prevalence was higher in PWID than in the GP. • The highest anti-HCV prevalence estimate was 94.2% in Libya (2010)^[52], and the lowest was 21.7-29.1% in Tunisia (2009-2012)^[52].
Prisoners	<ul style="list-style-type: none"> • Anti-HCV prevalence was higher in prisoners than in the GP in Lebanon (3.4%, study dates not reported)^[38] and Libya (23.7%, 2006)^[52].

	<ul style="list-style-type: none"> • In Libya, HIV-infected prisoners presented an anti-HCV prevalence of 90.1% (study dates not reported), which was much higher than that in the GP^[49]. • In Iraq, the anti-HCV prevalence in prisoners was similar to the prevalence in the GP (0.6%, 1996-2001)^[33].
Men who have sex with men (MSM)	<ul style="list-style-type: none"> • Anti-HCV prevalence was 0.0-5.9% (2011-2012) in Sudan^[27] and 0.0% (2007-2008) in Lebanon^[33].
Patients with HIV or other STDs	<ul style="list-style-type: none"> • In Lebanon, Libya, Morocco, Saudi Arabia, and Tunisia, anti-HCV prevalence (ranging from 5.4% [2006-2010] in Morocco to 44.9%-54.1% [2003] in Libya) was higher than that in the GP. • In Iraq, Kuwait and Sudan, anti-HCV prevalence were similar (ranging from 0.9% [2012] in Kuwait to 1.7% [2010-2012] in Sudan) to that in the GP.
Female sex workers	<ul style="list-style-type: none"> • In Lebanon, Libya, and Sudan, anti-HCV prevalence was 0.0% (2007-2008)^[33], 5.2-7.3% (2010-2011)^[52], and 0.0%-5.1% (2011-2012)^[27], respectively.

Supplementary material 9: Hepatitis C and B coinfection in patients with hepatocellular carcinoma, Middle East and North Africa.

	Anti-HCV prevalence (%)	HBsAg (%)	Anti-HCV and HBsAg co-infection (%)
Egypt	79.8	6.9	8.2
Lebanon	16.3	64.1	3.3
Pakistan	53.7	23.2	8.1
Saudi Arabia ¹	36.9-40.3	14.8-37.9	2.1-2.7
Sudan	10.4	41.7	0.9
Tunisia	63.5	25.7	0
Yemen	33	42.5	2.7

¹The difference in the prevalence reported for Saudi Arabia by the two SRs^[36, 47] are likely due to the inclusion of an additional study by Alavian et al.^[36], probably because of a wider literature search period (1989-2015^[36] versus 1989-2014^[47]).

Supplementary material 10: Hepatitis C genotype distribution and evidence gap mapping, Middle East and North

Africa.

Country	Literature search period	Population type	Quantitative synthesis method	Genotype 1	Genotype 2	Genotype 3	Genotype 4	Genotype 5	Genotype 6	Mixed
Algeria	2000-Unknown	General population ^[6]	Unclear	69.2%	11.3%	10.0%	4.7%	0.9%	-	4.0%
Algeria	Unknown	Pregnant women ^[44]	Reported as it is	-	-	-	Most common	-	-	-
Algeria	Inception-Unknown	- ^[48]	Reported as it is	Most common	-	-	-	-	-	-
Algeria	1995-Unknown	General population ^[43]								
Algeria	Unknown	HIV-infected patients ^[49]								
Algeria	2000-2010	People who inject drug ^[38]								
Libya	2000-Unknown	General population ^[6]	Unclear	32.7%	14.9%	16.7%	35.7%	-	-	-
Libya	1995-Unknown	General population ^[43]	Reported as it is	2 nd most common	-	-	Most common	-	-	-
Libya	Unknown	Pregnant women ^[44]	Reported as it is	-	-	-	Most common	-	-	-
Libya	2000-2015	Mixed	Meta-	32.0%	-	-	32.0%			

		populations ^[58]	analysis							
		Mixed populations ^[37]								
Libya	1995-2016	Patients with HCV infection ^[38]	Meta-analysis	34.2%	16.1%	16.9%	32.4%	-	-	-
Libya	2000-2010	Inception-	Reported as it is	Most common	-	-	-	-	-	-
Libya	Unknown	-. ^[48]	Reported as it is	32.6%	-	-	35.7%	-	-	-
Libya	Unknown	HIV-infected patients ^[49]								
Libya	2000-2010	People who inject drug ^[38]								
Morocco	2000-Unknown	General population ^[6]	Unclear	75.9%	22.7%	-	0.7%	-	-	0.7%
Morocco	1995-Unknown	General population ^[43]	Reported as it is	Most common	-	-	-	-	-	-
Morocco	Unknown	Pregnant women ^[44]	Reported as it is	Most common	-	-	-	-	-	-
Morocco	2000-2015	Mixed populations ^[58]	Meta-analysis	55.0%	26.0%	-	-	-	-	-
Morocco	Unknown	HIV-infected patients ^[49]	Reported as it is	Most common	-	2 nd most common	3 rd most common	-	4 th most common	-
Morocco	2000-2010	Patients ^[38]	Reported as it is	Most common	-	-	-	-	-	-

				Most commo n	2 nd most commo n					
Morocco	Inception- Unknown	-[48]	Reported as it is			-	-	-	-	-
Morocco	2000-2010	People who inject drug ^[38]								
Tunisia	2000- Unknown	General population ^[6]	Unclear	84.0%	10.1%	1.4%	-	-	-	4.3%
Tunisia	1995- Unknown	General population ^[43]	Reported as it is	Most commo n	-	-	-	-	-	-
Tunisia	Unknown	Pregnant women ^[44]	Reported as it is	-	-	-	Most commo n	-	-	-
Tunisia	2000-2015	Mixed populations ^[58]	Meta- analysis	75.0%	-	-	22.0%	-	-	-
Tunisia	Unknown	HIV-infected patients ^[49]	Reported as it is	Most commo n	-	-	-	-	-	-
Tunisia	2000-2010	Patients with HCV infection ^[38]	Reported as it is	Most commo n	-	-	-	-	-	-
Tunisia	2000-2010	Hemodialysis patients ^[38]	Reported as it is	Most commo n	-	-	-	-	-	-
Tunisia	Inception- Unknown	-[48]	Reported as it is	Most commo n	-	-	-	-	-	-
Tunisia	2000-2010	People who inject drug ^[38]								

	Unknown	population ^[6]								
Sudan	Unknown	HIV-infected patients ^[49]								
Sudan	2000-2010	People who inject drug ^[38]								
Egypt	2000-Unknown	General population ^[6]	Unclear	6.1%		0.8%	93.1%			
Egypt	1990-2013	General population ^[56]	-	10.0%	-	-	90.0%	-	-	-
Egypt	1995-Unknown	General population ^[43]	Reported as it is	-	-	-	Most common	-	-	-
Egypt	Unknown	Pregnant women ^[44]	Reported as it is	-	-	-	Most common	-	-	-
Egypt	2000-2010	Blood donors ^[38]	Reported as it is	-	-	-	Most common	-	-	-
Egypt	2000-2015	Mixed populations ^[58]	Meta-analysis	5.0%			69.0%	-	-	-
Egypt	2000-2010	Hemodialysis patients ^[38]	Reported as it is	Less common	-	-	Most common	-	-	-
Egypt	2000-2010	Patients with non-Hodgkin lymphoma ^[38]	Reported as it is	-	-	-	Most common	-	-	-
Egypt	2000-2010	Patients with elevated liver enzymes ^[38]	Reported as it is	-	-	-	Most common	-	-	-

Egypt	2000-2010	Patients with HCV infection ^[38]	Reported as it is	-	-	-	Most common	-	-	-
Egypt	Unknown	Patients with Hepatocellular carcinoma ^[50]	Reported as it is	6.0%	-	1.0%	93.0%	-	-	-
Egypt	1995-2016	Mixed populations ^[37]	Meta-analysis	6.3%	1.1%	2.5%	86.2%	-	-	-
Egypt	Inception-Unknown	People who inject drug ^[38]	Reported as it is	-	-	-	Most common	-	-	-
Egypt	2000-2010	HIV-infected patients ^[49]								
Pakistan	2000-Unknown	General population ^[6]	Unclear	7.0%	3.8%	79.0%	1.6%	0.1%	0.1%	8.3%
Pakistan	1996-2011	General population ^[55]	Proportion	7.0%	3.8%	79.0%	1.6%	0.1%	0.1%	5.0%
Pakistan	Unknown	General population ^[50]	Reported as it is	11.5%	8.5%	67.5%-86.7%	-	-	-	-
Pakistan	1970-2005	Patients with chronic liver disease, hepatocellular carcinoma, and HCV infection ^[57]	Reported as it is	9.0%-14.0%	2.0%	3.0%-87.0%	2.0%	18.0%	-	-

Pakistan	1970-2005	Household of thalassemic children ^[57]	Reported as it is	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Pakistan	2000-2015	Mixed populations ^[58]	Meta-analysis	8.0%	-	67.0%	-	-	-	-
Pakistan	1994-2009	Mixed populations ^[40]	Reported as it is	9.5%-11.5%	8.4%	67.5%-87.0%	1.5%	0.2%	0.1%	4.8%
Pakistan	Unknown	Mixed populations ^[53]	Reported as it is	6.0%-12.0%	1.4%-4.8%	50.0%-87.2%	0.9%-2.4%	0.0%-0.4%	0.0%-2.7%	0.0%-8.8%
Bahrain	2000-2015	Mixed populations ^[58]	Meta-analysis	37.0%	-	-	-	-	-	-
Bahrain	1995-2016	Mixed populations ^[37]	Meta-analysis	36.6%	5.1%	17.0%	12.0%	-	-	-
Bahrain	2000-Unknown	General population ^[6]								
Bahrain	2000-2010	General population ^[38]								
Bahrain	2000-2010	People who inject drug ^[38]								
Kuwait	2000-Unknown	General population ^[6]	Unclear	19.4%	0.7%	6.9%	54.2%	-	-	18.8%
Kuwait	2000-2015	Mixed populations ^[58]	Meta-analysis	28.0%	-	-	43.0%	-	-	-
Kuwait	1995-2016	Mixed populations ^[37]	Meta-analysis	27.5%	0.5%	17.6%	44.6%	-	-	-

Kuwait	2000-2010	General population ^[38]								
Kuwait	2000-2010	People who inject drug ^[38]								
Oman	2000-Unknown	General population ^[6]								
Oman	2000-2010	General population ^[38]								
Oman	2000-2010	People who inject drug ^[38]								
Oman	2000-2015	Mixed populations ^[58]								
Oman	1995-2016	Mixed populations ^[37]								
Qatar	2000-2015	Mixed populations ^[58]	Reported as it is	20.0%	-	-	64.0%	-	-	-
Qatar	1995-2016	Mixed populations ^[37]	Meta-analysis	19.8%	0.5%	15.8%	64.0%	-	-	-
Qatar	2000-Unknown	General population ^[6]								
Qatar	2000-2010	General population ^[38]								
Qatar	2000-2010	People who inject drug ^[38]								
Saudi Arabia	Inception-2011	General population ^[54]	Reported as it is	27.1%	3.6%	5.2%	52.6%	0.5%	-	-

Saudi Arabia	2000-Unknown	General population ^[6]	Unclear	25.9%	4.4%	2.9%	60.0%	0.3%	0.3%	6.3%
Saudi Arabia	Unknown	General population ^[50]	Reported as it is	14.0%-23.4%	3.2%	3.4%	60.9%-74.0% Most common	Rare	0.0%	-
Saudi Arabia	Unknown	Pregnant women ^[44]	Reported as it is	-	-	-	-	-	-	-
Saudi Arabia	2000-2015	Mixed populations ^[58]	Meta-analysis	23.0%	-	-	65.0%	-	-	-
Saudi Arabia	1995-2016	Mixed populations ^[37]	Meta-analysis	26.5%	4.1%	4.1%	56.0% Most common	-	-	-
Saudi Arabia	2000-2010	Patients with HCV infection ^[38]	Reported as it is	-	-	-	-	-	-	-
Saudi Arabia	Unknown	People who inject drug ^[50]	Reported as it is	48.0%	-	-	36.0%	-	-	-
Saudi Arabia	2000-2010	General population ^[38]								
Saudi Arabia	2000-2010	People who inject drug ^[38]								
United Arab Emirates	2000-Unknown	General population ^[6]	Unclear	27.0%	3.0%	23.8%	46.2% Most common	-	-	-
United Arab Emirates	2000-2010	Patients with chronic liver disease ^[38]	Reported as it is	-	-	-	-	-	-	-
United Arab Emirates	2000-2015	Mixed populations ^[58]	Meta-analysis	38.0%	-	-	30.0%	-	-	-

United Arab Emirates	1995-2016	Mixed populations ^[37]	Meta-analysis	41.4%	2.1%	30.9%	25.7%	-	-	-
United Arab Emirates	2000-2010	People who inject drug ^[38]	-	-	-	-	-	-	-	-
Yemen	Unknown	Pregnant women ^[44]	Reported as it is	-	-	-	Most common	-	-	-
Yemen	1995-2016	Mixed populations ^[37]	Meta-analysis	26.8%	7.5%	1.8%	63.9%	-	-	-
Yemen	2000-2015	Mixed populations ^[58]								
Yemen	2000-Unknown	General population ^[6]								
Yemen	Inception-2015	-[27]								
Yemen	Unknown	-[49]								
Yemen	2000-2010	General population ^[38]								
Yemen	2000-2010	People who inject drug ^[38]								
Iraq	1989-2015	Mixed populations ^[33]	Frequency calculation	33.2%	0.5%	3.8%	62.5%	-	-	-
Iraq	2000-Unknown	General population ^[6]	Unclear	14.3%	-	17.7%	52.9%	-	-	15.7%
Iraq	Unknown	Pregnant women ^[44]	Reported as it is	-	-	-	Most common	-	-	-

Iraq	2000-2010	Thalassemia patients ^[38]	Reported as it is	-	-	-	Most common	-	-	-
Iraq	2000-2015	Mixed populations ^[58]	Meta-analysis	45.0%	-	-	32.0%	-	-	-
Iraq	1995-2016	Mixed populations ^[37]	Meta-analysis	25.9%	0.8%	2.6%	60.3%	-	-	-
Iraq	2000-2010	People who inject drug ^[38]								
Jordan	2000-Unknown	General population ^[6]	Unclear	73.3%	-	-	26.7%	-	-	-
Jordan	2000-2010	Hemodialysis patients ^[38]	Reported as it is	Most common	-	-	-	-	-	-
Jordan	2000-2015	Mixed populations ^[58]	Meta-analysis	52.0%	-	-	52.0%	-	-	-
Jordan	1995-2016	Mixed populations ^[37]	Meta-analysis	39.5%	0.0%	0.0%	50.0%	-	-	-
Jordan	1989-2015	Mixed populations ^[33]	Frequency calculation	42.3%	-	-	57.7%	-	-	-
Jordan	2000-2010	People who inject drug ^[38]								
Lebanon	2000-Unknown	General population ^[6]	Unclear	42.3%	4.9%	6.3%	45.8%	0.7%	-	-
Lebanon	2000-2010	Thalassemia patients ^[38]	Reported as it is	-	-	-	Most common	-	-	-

								n			
Lebanon	2000-2010	Patients with chronic kidney disease ^[38]	Reported as it is	Most common	-	-	-	-	-	-	-
Lebanon	2000-2010	Patients with HCV infection ^[38]	Reported as it is	-	-	-	Most common	-	-	-	-
Lebanon	2000-2010	Patients with liver disease ^[38]	Reported as it is	-	-	-	Most common	-	-	-	-
Lebanon	2000-2010	Hemodialysis patients ^[38]	Reported as it is	-	-	-	Most common	-	-	-	-
Lebanon	2000-2010	Multi-transfused patients ^[38]	Reported as it is	-	-	-	Most common	-	-	-	-
Lebanon	2000-2010	People who inject drug ^[38]	Reported as it is	21.0%-42.1%	-	26.3%-57.0%	18.0%-34.6%	-	-	-	-
Lebanon	2000-2015	Mixed populations ^[58]	Meta-analysis	37.0%	-	-	33.0%	-	-	-	-
Lebanon	1995-2016	Mixed populations ^[37]	Meta-analysis	34.9%	9.1%	13.1%	32.0%	-	-	-	-
Lebanon	1989-2015	Mixed populations ^[33]	Frequency calculation	39.9%	15.8%	11.9%	32.1%	0.3%	-	-	-
Palestine	2000-Unknown	General population ^[6]	Unclear	28.3%	-	-	64.1%	-	-	-	7.6%

inject drug^[38]



Supplementary material 11: Hepatitis C subtype distribution, Middle East and North Africa

Region/Country	Literature search period	Population type	Subtype
North Africa and Pakistan			
Algeria	Inception-Unknown	–[48]	1b (86.2)
Algeria	2000-Unknown	General population[6]	1b (57.0%), 1a (12.2%)
Libya	2000-Unknown	General population[6]	1a (4.9%), 1b (14.6%)
Morocco	2000-2015	Mixed populations[58]	1b (32%),
Morocco	Inception-Unknown	–[48]	1b (47.6%), 1a (2.8%), 2a/2c (37.1%)
Morocco	2000-Unknown	General population[6]	1a (0.7%), 1b (75.2%)
Morocco	1995-Unknown	General population[43]	1b
Morocco	Unknown	Pregnant women[44]	1b
Morocco	2000-2010	Patients[38]	1b (most common): 1a and 2a (less common)
Tunisia	2000-2015	Mixed populations[58]	1b (69%)
Tunisia	2000-Unknown	General population[6]	1a (1.4%), 1b (82.6%)
Tunisia	1995-Unknown	General population[43]	1b
Tunisia	2000-2010	Patients with HCV infection[38]	1b (most common): 1a and 2a (less common)
Tunisia	2000-2010	Hemodialysis patients[38]	1b (most common)
Egypt	2000-Unknown	General population[6]	1b (2.3%)
Egypt	1990-2013	General population[56]	1b (4%)
Egypt	2000-2010	Blood donors[38]	1a and 1b are the less common
Egypt	2000-2010	Patients with non-Hodgkin lymphoma[38]	4a (most common): 1g and 1b (less common)
Egypt	2000-2010	Patients with elevated liver enzymes[38]	4a (most common)

Egypt	2000-2010	Patients with HCV infection ^[38]	4a (most common): 1g and (less common)
Egypt	Unknown	Patients with Hepatocellular carcinoma ^[50]	4a (63%)
Egypt	2000-2015	Mixed populations ^[58]	4a (59%), 1b (3%)
Pakistan	2000-Unknown	General population ^[6]	1a (4.8%), 1b (1.2%), 1c (0.2%)
Pakistan	1996-2011	General population ^[55]	1a (4.8%), 1b (1.2%), 1c (0.2%), 2a (2.9%), 2b (0.3%), 2c (0.02%), 3a (58.0%), 3b (9.8%), 3c (0.3%), 3k (0.01%), 4a (0.6%), 4b (0.1%), 5a (0.1%), 6a (0.04%)
Pakistan	Unknown	General population ^[50]	1a (8.3%), 1b (3.0%), 2a (7.5%), 2b (0.8%), 3a (49.1%), 3b (17.7%)
Pakistan	2000-2015	Mixed populations ^[58]	3a (56%), 3b (10%)
Pakistan	1994-2009	Mixed populations ^[40]	1a (8.4%), 1b (3.0%-16.0%), 1c (0.2%), 2a (7.5%), 2b (0.8%), 2c (0.1%), 3a (49.1%-90%), 3b (17.7%), 3c (0.8%), 5a (0.2%), 6a (0.1%)
Arab Peninsula			
Saudi Arabia	Unknown	People who inject drug ^[50]	1b (39%)
United Arab Emirates	2000-Unknown	General population ^[6]	1a (15.0%), 1b (12.0%)
Fertile Crescent			
Iraq	2000-Unknown	General population ^[6]	1b (12.9%), 1a (1.4%)
Iraq	2000-2010	Thalassemia patients ^[38]	1a and 1b (less common)
Iraq	2000-2015	Mixed populations ^[58]	1b (23%), 1a (15%)
Jordan	2000-Unknown	General population ^[6]	1a (40.0%), 1b (33.3%)
Jordan	2000-2010	Hemodialysis patients ^[38]	1a (most common): 1b (less common)
Lebanon	2000-Unknown	General population ^[6]	1a (25.4%), 1b (16.9%)
Lebanon	2000-2010	Thalassemia patients ^[38]	1a and 1b (less common)
Lebanon	2000-2010	Patients with chronic	1b (most common): 3a (less common)

		kidney disease ^[38]	
Lebanon	2000-2010	Patients with HCV infection ^[38]	1b the less common
Lebanon	2000-2010	Patients with liver disease ^[38]	1a and 1b (less common)
Lebanon	2000-2010	Hemodialysis patients ^[38]	1a and 1b (less common)
Lebanon	2000-2010	Multi-transfused patients ^[38]	1a and 1b (less common)
Lebanon	2000-2010	People who inject drug ^[38]	1a (5.3%), 1b (31.6%), 1g (5.3%), 3a (26.3%)
Palestine	2000-Unknown	General population ^[6]	1a (18.5%), 1b (9.8%)

Supplementary material 12: Risk factors for acquiring hepatitis C infection in the Middle East and North Africa

Country	Systematic review	Literature search period	Inclusion criteria	Population type	Risk factors	Comment
Algeria	Fadlalla, 2015 ^[52]	1980- Unkown	-	Mixed populations	Duration of dialysis, history of transfusion, surgery, and dental work.	Reported for Algeria, Libya, Mauritania, Morocco, Tunisia all together
Bahrain	Mohamoud, 2016 ^[59]	Unknown	-	Mixed populations	Duration of dialysis and history of blood transfusion	Reported for Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE all together
Djibouti	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	Mixed populations	Duration of dialysis, history of blood transfusion, blood donation, and surgery as risk factors significantly associated to HCV infection (after adjustment for confounders)	Reported for Djibouti, Somalia, Sudan, Yemen all together
Egypt	El-Ghitany, 2015 ^[39]	Unknown	-	Mixed populations	HCV positive partner (pooled OR=6.4 [1.9-22.0]), Household HCV index case (OR=2.9 [2.1-4.1]), Household contact - Sharing razors or sharp objects (OR=1.5 [1.1-2.3]), IDUs	-

					(OR=13.9 [2.3-85.0]), alcohol abuse (OR=2.0 [1.2-3.3])	
Egypt	Reker, 2014 ^[60]	2008-2012	-	Mixed populations	Catheter, stitches, gum treatment, illiteracy, mother's HCV status, schistosomiasis treatment, number of pregnancies, familial transmission, intravenous injection, surgery	-
Egypt	Gasim, 2013 ^[44]	Unknown	-	Pregnant women	Low educational level and intra-familial exposure. Transfusion is no longer a risk factor	-
Egypt	Van-Lume, 2013 ^[45]	1990-2011	-	Patients with schistosomiasis	Genetic background, anti-schistosomiasis therapy, blood transfusion, nosocomial exposure, hemodialysis	-
Egypt	Mohamoud, 2013 ^[61]	Inception-Unknown	-	Mixed populations	History of anti-schistosomiasis therapy, residing in rural areas, history of blood transfusions, invasive procedures, injections in healthcare settings, perinatal care, dental work, circumcision, cautery, injection by informal health provider, intra-familial transmission. In children, hospitalization and low birth weight	-
Egypt	Sievert,	Unknown	Only adults	General	Injection for schistosomiasis,	-

	2011 ^[50]		included; first and second generation immunoassay excluded	population	blood transfusion, needle reuse*	
Iraq	Gasim, 2013 ^[44]	Unknown	-	Pregnant women	Repeated abortion	-
Kuwait	Mohamoud, 2016 ^[59]	Unknown	-	Mixed populations	Duration of dialysis and history of blood transfusion	Reported for Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE all together
Libya	Fadlalla, 2015 ^[52]	1980- Unkown	-	Mixed populations	Duration of dialysis, history of transfusion, surgery, and dental work.	Reported for Algeria, Libya, Mauritania, Morocco, Tunisia all together
Morocco	Fadlalla, 2015 ^[52]	1980- Unkown	-	Mixed populations	Duration of dialysis, history of transfusion, surgery, and dental work.	Reported for Algeria, Libya, Mauritania, Morocco, Tunisia all together
Oman	Mohamoud, 2016 ^[59]	Unknown	-	Mixed populations	Duration of dialysis and history of blood transfusion	Reported for Bahrain, Kuwait, Oman, Qatar, Saudi Arabia,

						UAE all together
Pakistan	Waheed, 2009 ^[40]	1994-2009	-	Mixed populations	Unsafe and unnecessary needles, blood transfusion, barbers, lack of awareness	-
Pakistan	Sievert, 2011 ^[50]	Unknown	Only adults included; first and second generation immunoassay excluded Only ELISA, EIA, and MEIA assays were included	General population	Syringe/needle reuse, surgery/dental work, blood transfusion*	-
Pakistan	Bosan, 2010 ^[53]	Unknown		Mixed populations	Healthcare related injection, household contact, surgery, blood transfusion, dental work	-
Pakistan	Raja, 2008 ^[57]	1970-2005	-	Mixed populations	Excessive use of injection and use of unsafe needles, blood transfusion, community barber shops, person-to-person spread, intravenous use, homosexuality, dental and surgical procedures, circumcision, tattooing, ear piercing, and dialysis	-
Qatar	Mohamoud, 2016 ^[59]	Unknown	-	Mixed populations	Duration of dialysis and history of blood transfusion	Reported for Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE all

						together
Saudi Arabia	Mohamoud, 2016 ^[59]	Unknown	-	Mixed populations	Duration of dialysis and history of blood transfusion	Reported for Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE all together
Saudi Arabia	Sievert, 2011 ^[50]	Unknown	Only adults included; first and second generation immunoassay excluded	General population	Blood transfusion, history of schistosomiasis, bloodletting, and traditional tattoos*	-
Sudan	Chaabna, 2016 ^[27]	Inception-2015	Sample size>15	Mixed populations	Duration of dialysis, history of blood transfusion, blood donation, and surgery as risk factors significantly associated to HCV infection (after adjustment for confounders)	Reported for Djibouti, Somalia, Sudan, Yemen
Sudan	Gasim, 2013 ^[44]	Unknown	-	Pregnant women	Intra-familial exposure	-
Sudan	Van-Lume, 2013 ^[45]	1990-2011	-	Patients with schistosomiasis	No risk factors	-
Syria	Sievert, 2011 ^[50]	Unknown	Only adults included; first and second generation immunoassay excluded	General population	Blood transfusion, hemodialysis, tattooing, injecting drug use*	-

Tunisia	Fadlalla, 2015 ^[52]	1980- Unkown	-	Mixed populations	Duration of dialysis, history of transfusion, surgery, and dental work	Reported for Algeria, Libya, Mauritania, Morocco, Tunisia all together
United Arab Emirates	Mohamoud, 2016 ^[59]	Unknown	-	Mixed populations	Duration of dialysis and history of blood transfusion	Reported for Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE all together:
Yemen	Chaabna, 2016 ^[27]	Inception- 2015	Sample size>15	Mixed populations	Duration of dialysis, history of blood transfusion, blood donation, and surgery as risk factors significantly associated to HCV infection (after adjustment for confounders)	Reported for Djibouti, Somalia, Sudan, Yemen all together
Yemen	Gasim, 2013 ^[44]	Unknown	-	Pregnant women	Low parity and low educational level. Transfusion is no longer a risk factor	-

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