



Hepatitis C Infection Elimination until 2030 International Experiences and National Plan

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Introduction

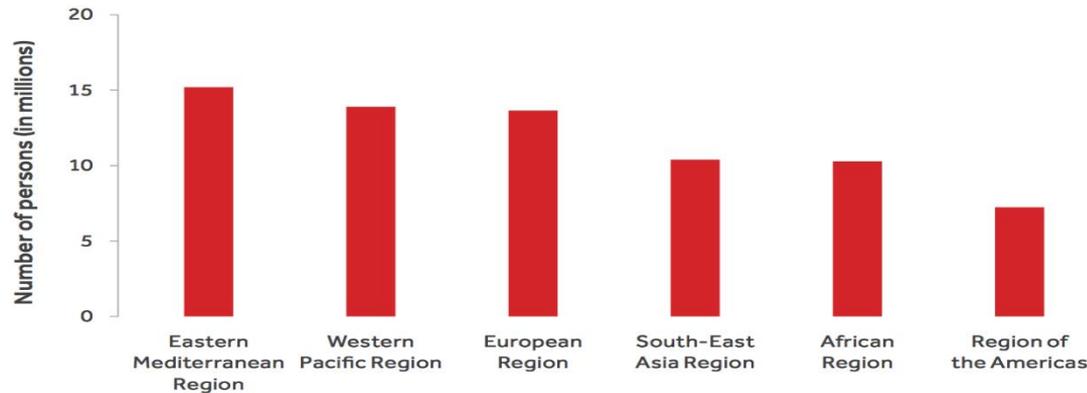
- Hepatitis C is a major global health problem and the progression leads to life threatening complications.
- Most of the global HCV burden is in **low- to middle-income countries**.
- The aim of therapy in HCV infection is to achieve the highest certainty of cure (SVR).
- Practically term of “ Difficult to treat left with new oral drugs.

Prevalence of HCV Infection by WHO Region

WHO region	Estimates of the prevalence of HCV infection (%)			Estimated number of persons living with HCV (millions)		
	Uncertainty interval			Uncertainty interval		
	Best	Lower	Higher	Best	Lower	Higher
African Region	1.0	0.7	1.6	11	7	16
Region of the Americas	0.7	0.6	0.8	7	6	8
Eastern Mediterranean Region	2.3	1.9	2.4	15	13	15
European Region	1.5	1.2	1.5	14	11	14
South-East Asia Region	0.5	0.4	0.9	10	8	18
Western Pacific Region	0.7	0.6	0.8	14	10	15
Total	1.0	0.8	1.1	71	62	79

Previously reported

**Worldwide Infection:
Between 130-170
Million**



Epidemiologic profile and estimated disease burden of HCV in Iran in 2014

HCV epidemiology and burden	Frequency
Individuals living with chronic HCV infection	186,500 individuals
HCV prevalence (viremic)	0.24% (0.17% - 0.31%)
HCV incidence (annual)	11 per 100,000
HCV diagnosis	35%
HCV treatment rate (annual)	2.4% (n ~ 4,500)
HCV genotype	Genotype 1: 64% Genotype 2: 2% Genotype 3: 33% Genotype 4: 1%
Less than 0.5% HCV seropositivity	
HCV-related decompensated cirrhosis	140 individuals
HCV-related HCC	160 individuals
HCV-related death	120 individuals

Hajarizadeh B, Razavi-Shearer D, Merat S, **Alavian SM**, Malekzadeh R, Razavi H. Liver disease burden of hepatitis C virus infection in Iran and the potential impact of various treatment strategies on the disease burden. *Hepatitis Monthly*. 2016;16(7):e37234

جدول ۲- توزیع فراوانی آلودگی به ویروس HCV به تفکیک سال در زندان‌های بررسی شده در کشور

سال بررسی	آلودگی به ویروس HCV	
	درصد آلودگی	حجم نمونه
۱۳۷۹	۲۴/۰	۴۸۰
۱۳۸۰	۳۴/۷	۲۳۴۶
۱۳۸۱	۴۴/۸	۱۷۶۲
۱۳۸۲	۴۶/۱	۱۵۹۷
۱۳۸۳	۳۲/۸	۲۴۰۰
۱۳۸۴	۴۲/۲	۴۵
جمع	۳۷/۸۵	۸۶۳۰



Hepatitis C Virus Infection and Its Prevalence in Iran

- Less than 0.5% of General population are HCV infected in Iran and the main risk factors are history of blood transfusion before 1996 and history of IDUs
- The special group such as Hemophilia and Thalassemia and Hemodialysis patients selected for screening and treatment during recent 10 years and now..
- IDUs cases are the main high risk group now and harm reduction and other strategies should attenuated now.
- Treatment is a part of prevention for decrease the chance of transmission

Hepatitis C Elimination

Systematic Strategies Towards HCV Elimination



2011-2014

- Revolutionized treatment
- Direct Acting Antivirals (DAAs)
- No injections
- Once daily
- Minimum side effects
- Highly effective

Hepatitis Strategy, 2016: Elimination by 2030

	Interventions	2030 targets
1. Service coverage	1. Three dose hepatitis B vaccine	90%
	2. HBV PMTCT	90%
	3. Blood and injection safety	100 % screened donations
		90% reuse-prevention devices
	4. Harm reduction	300 injection sets/PWID/yr
	5. Treatment	90% diagnosed
80% eligible treated		
2. Impact	A. Incidence reduction	90%
	B. Mortality reduction	65%

PMTCT: Prevention of mother to child transmission **PWID:** Person who injects drugs

Why Elimination of HCV is Feasible

HCV Meets All Established Criteria For Elimination

- No non-human reservoir
- Virus cannot amplify in the environment
- Simple and accurate diagnostic tools
- Practical interventions to interrupt transmission
- Infection is curable

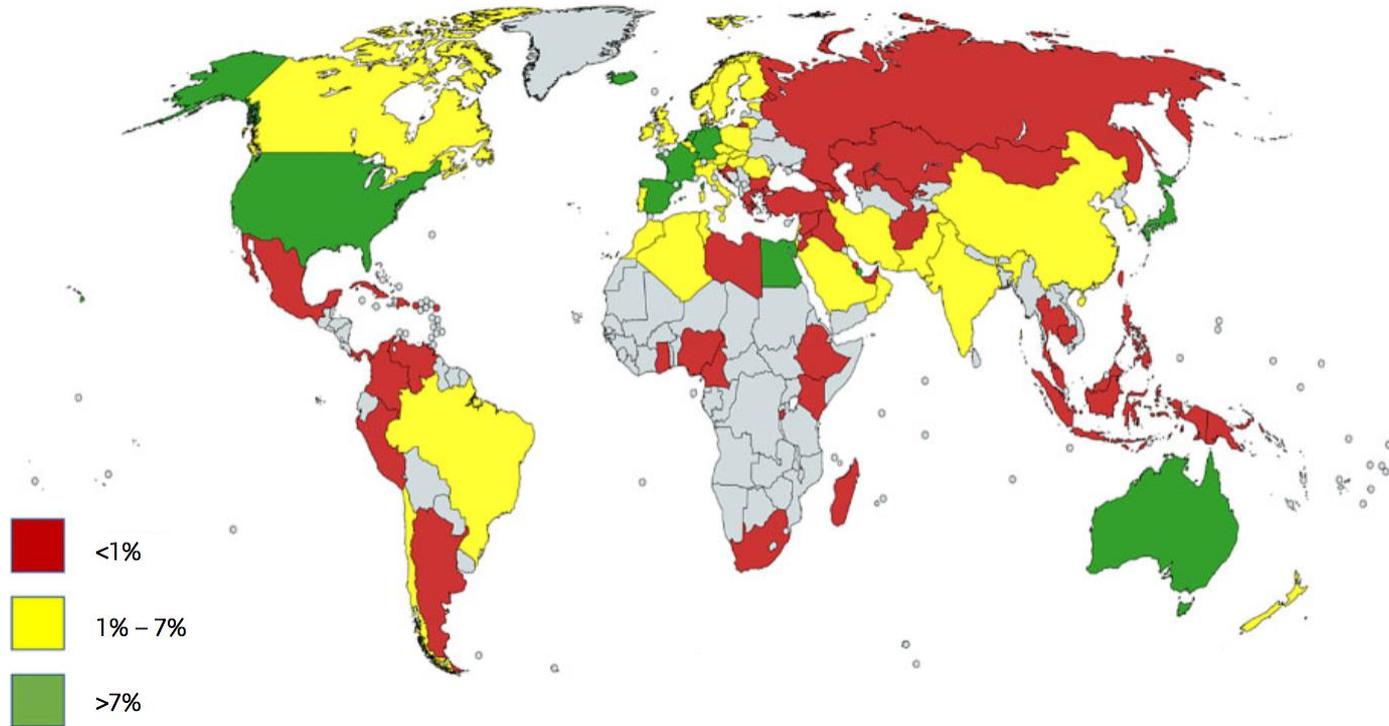
What to Do to Achieve HCV Elimination

Rigorous national HCV surveillance across all countries

- Effective screening programmes and linkage to care
 - Increased treatment uptake with high efficacy therapies
 - To close gaps in diagnosis, treatment and infrastructure
 - Country-specific tailored disease prevention programmes
 - Collaboration between stakeholders to cure more patients
-

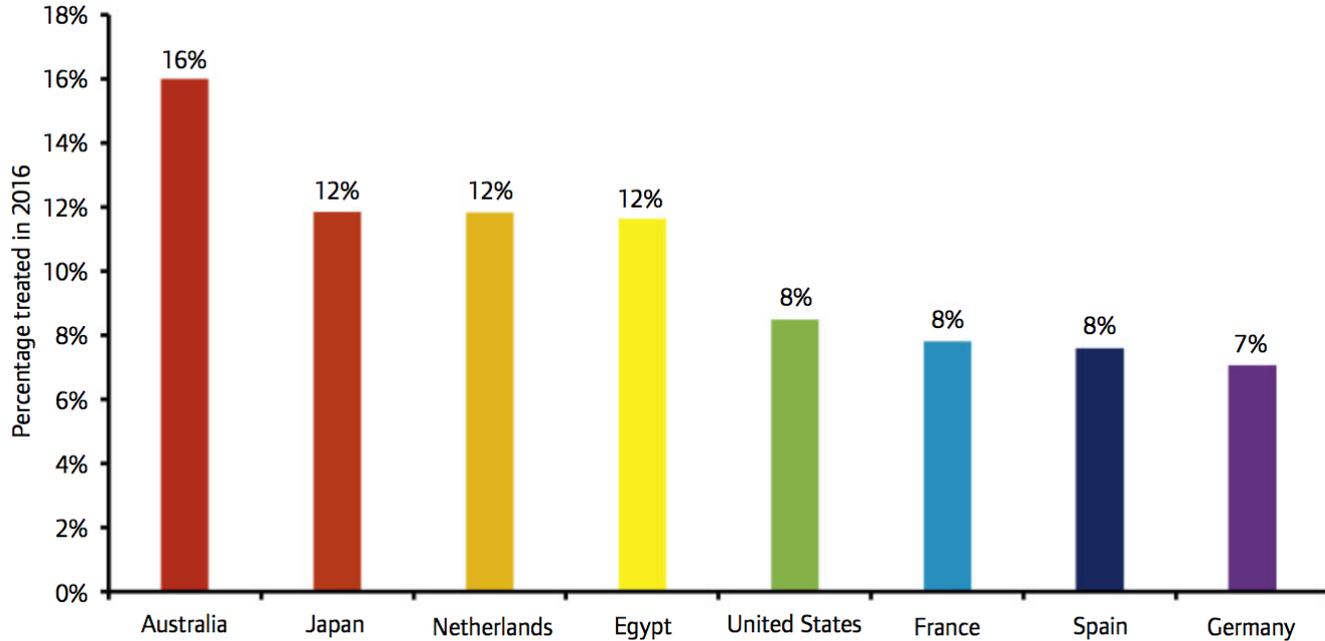
WHO Plans for Elimination of Viral Hepatitis Through Synergistic Interventions

Map Showing the Percentage Treatment Rate by Country for HCV

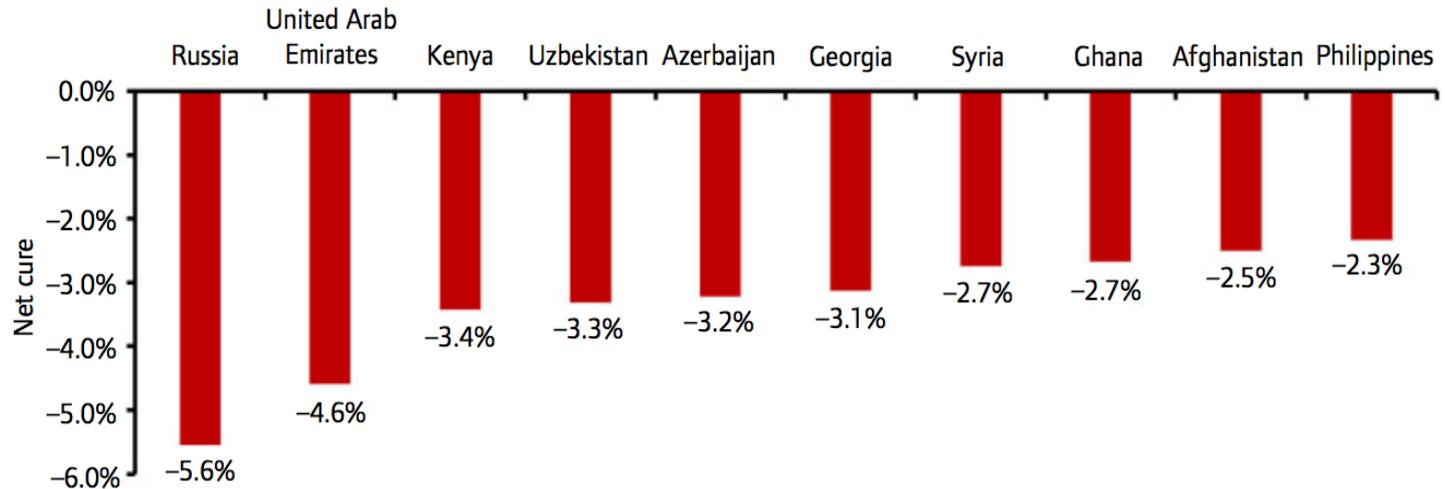


No reliable data in countries shaded in grey

The Eight Countries Treating the Most People by Percentage in 2016

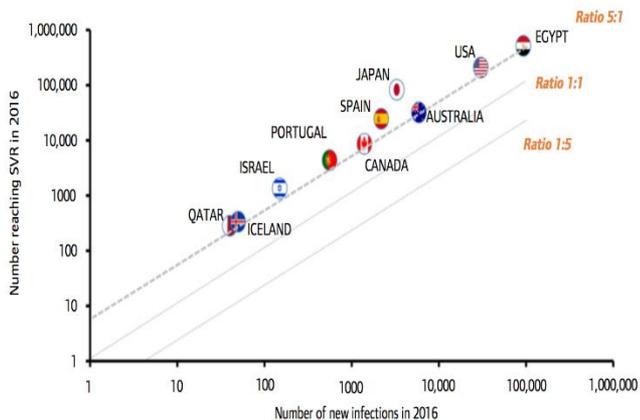


The 10 Countries with the Lowest Net Cure in 2016

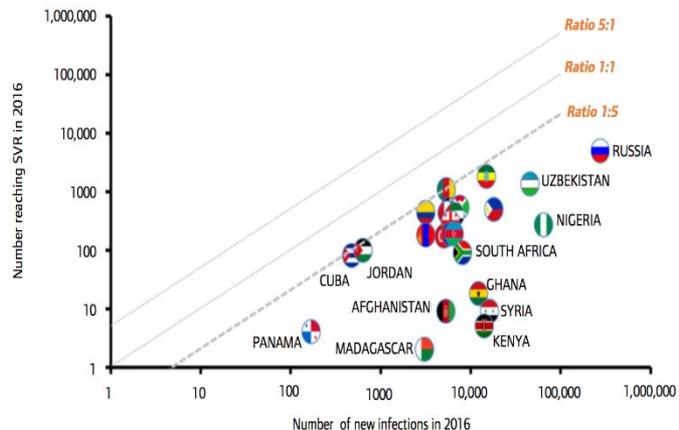


Rates of SVR vs New Infections in 2016

The 10/91 countries with >5 times more people reaching SVR than there were new infections



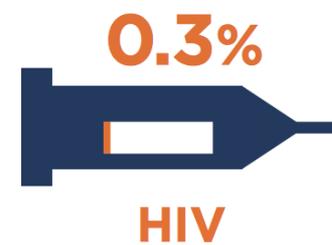
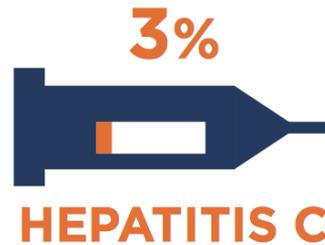
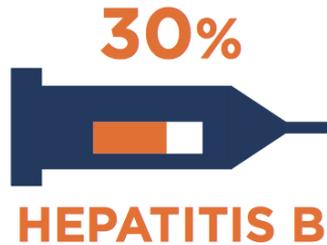
The 23/91 countries with 5 times fewer people reaching SVR than there were new infections



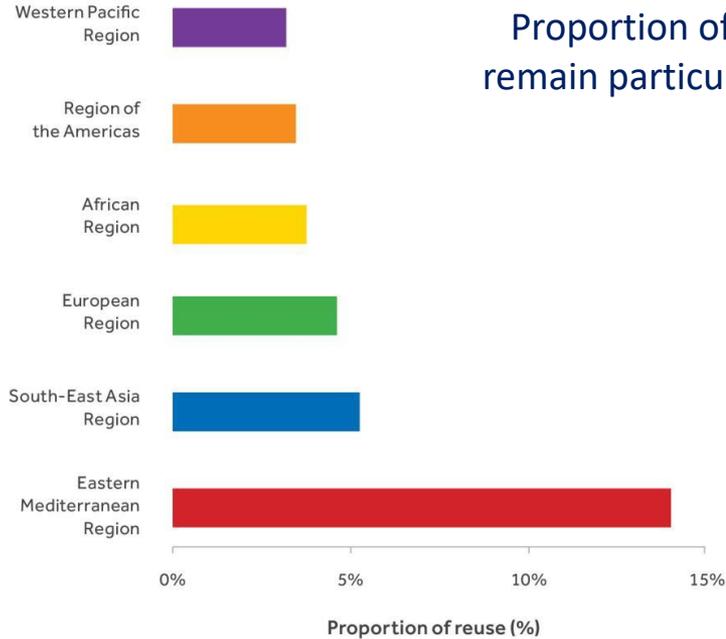
Estimated Risk of Getting Hepatitis or HIV from a Contaminated Syringe or Needle.



An **unsafe injection** could **put you at risk** of getting a life-threatening infection such as:



Blood and Injection Safety



Proportion of unsafe injections by region, challenges remain particularly in the Eastern Mediterranean region



International Plan for HCV Elimination Until 2030



Some countries may achieve the WHO targets by or even before 2030



National plan to treat all HCV patients according to Icelandic guidelines over 3 years

- Prioritisation of active PWID and patients with moderate-to-severe fibrosis
- Jan to Dec 2016, 1/3 of the HCV population were treated



Georgia HCV Elimination Program

- Prioritisation of patients with advanced liver disease
- April 2015 to April 2016, 8448 people treated, a 400% increase in the number patients treated over the previous 4 years



Public health policy

- Access for all to highly effective HCV treatment was made a priority
- March to July 2016, 11% (26,360 patients) of the HCV population were treated

Sources: Gottfredsson F, et al. HIV and Hepatitis Nordic Conference 2016; Abstract #05; Gvinjilia L, et al. MMWR 2016;65:1132–5; Monitoring hepatitis C treatment uptake in Australia. Issue #5, September 2016. Available at: http://kirby.unsw.edu.au/sites/default/files/hiv/attachment/Kirby_HepC_Newsletter_Issue5_2.pdf (accessed January 2017)

Eliminating HCV requires national plans

A viral hepatitis resolution approved by the World Health Assembly in 2014 called on all countries to develop and implement national strategies for preventing, diagnosing and treating viral hepatitis.



Background on policy implications for restrictions on treatment of PWID

- Many countries have developed national hepatitis C strategies
- Do they cover treatment, follow-up, and monitoring?
 - Interferon-free HCV DAA duration
 - List price of DAA therapies
 - Universal HCV DAA coverage
 - Prior evidence on reimbursement
- – Marshall et al. 2016 (Canada)
- – Barua et al. 2015 (US)



Are they comprehensive?

Cost-effectiveness & shorter treatment

Restrictions on reimbursement

Discussion

- •Global elimination of HCV now a possibility:
- Findings highlighted considerable variability in DAA therapy restrictions across country, particularly with respect to fibrosis stage and injecting drug status
- •Restricting DAA prescribing to specialists is a considerable barrier to broad access
- •Access to HCV treatment outside of hospital settings is limited yet key for reaching and treating high-risk patient populations

Discussion

- Implications for health policy-makers and health service delivery with evidence of some doctors not following national HCV treatment guidelines .
- A shift is required from individual management of HCV to population management:
 - –Improve screening, especially among those at high risk of HCV infection, through healthcare access points
 - –Scale-up treatment including by broadening the HCV prescriber base
- Expand models of care to include screening, assessments, treatment, harm reduction and re-screening for those with continued high-risk behaviors
- •To achieve global HCV elimination, partnership is required between HCPs, policy-makers, patient organizations, and industry to develop and implement local strategies

Central elements for HCV elimination



Increase screening and diagnosis



Increase uptake of effective treatment



Expanded models of HCV management



Political leadership



National HCV strategies



Policy change

- Generic DAA is a major step forward but there are still more requirements to ensure achieving WHO HCV elimination targets:
 - Affordable HCV diagnosis and treatment with access for all
 - Expanding prescribers
 - Integration of substance use care and HCV care
 - HCV awareness campaigns targeting the main population at risk
 - Peer-workers can facilitates linkage to care
 - Simplified diagnostics

Iranian Plan for Hepatitis C Elimination



HCV in Hemophilia and Thalassemia is on control in Iran now How?



Iran Hepatitis Network



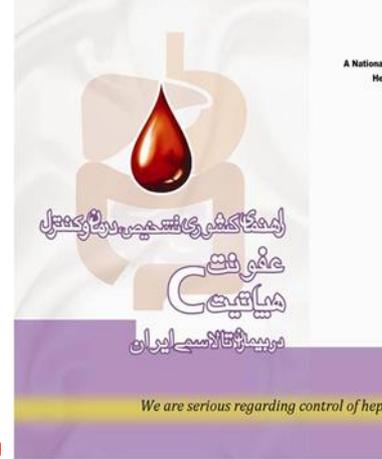
Ministry of Health and Medical Education (Iran)



کانون هموفیلی ایران
حامی بیماران هموفیلی ایران



انجمن تالاسمی ایران



I hope for HCV elimination until 2020 in special patients

Hepatitis B and C in dialysis units in Iran: Changing the epidemiology

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Shahram NOUROZI⁴

- Prevalence of positive HBS Ag and **HCV Abs** in patients on hemodialysis decreased from 3.8% and **14.4%** in 1999 to **2.6%** and 4.5% in 2006, respectively.

Treatment (A Brief History)

CLINICAL STUDIES

Peginterferon α -2a and ribavirin treatment of patients with haemophilia and hepatitis C virus infection: a single-centre study of 367 cases

Seyed-Moayed Alavian¹, Seyed Vahid Tabatabaei¹, Maryam Keshvari², Bitah Behnava¹, Seyyed Mohammad Miri¹, Pegah Karimi Elizee² and Kamran Bagheri Lankarani³

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Keywords

congenital bleeding disorder – HCV –
haemophilia – peginterferon α -2a – ribavirin

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Abstract

Background/aims: Chronic hepatitis C virus infection (HCV) is a major comorbidity in patients with haemophilia. Peginterferon alpha and ribavirin is current standard anti-HCV therapy but there is little information about safety and efficacy of peginterferon α -2a and ribavirin combination therapy in these patients. **Material and methods:** In an open-label single-treatment arm cohort study, 367 haemophilia patients seronegative for hepatitis B and human immunodeficiency virus markers and chronically infected with HCV (HCV RNA > 50 IU/ml for at least 6 months) received 180 μ g of Pegasys[®] and 800–1200 mg of ribavirin according to body weight. Genotypes 1 and 4,

Two hundred and twenty-five subjects **61%** achieved SVR, 66 patients relapsed and 30 subjects did not respond and nine patients developed breakthrough during treatment. Peg interferon alpha-2a in combination with weight-based ribavirin has SVR rate of **51%** for genotype 1 and **71%** for genotype non-1 infections in hemophilia patients.

Alavian SM, et al. Peginterferon alpha-2a and ribavirin treatment of patients with haemophilia and hepatitis C virus infection: a single-centre study of 367 cases. Liver Int. 2010

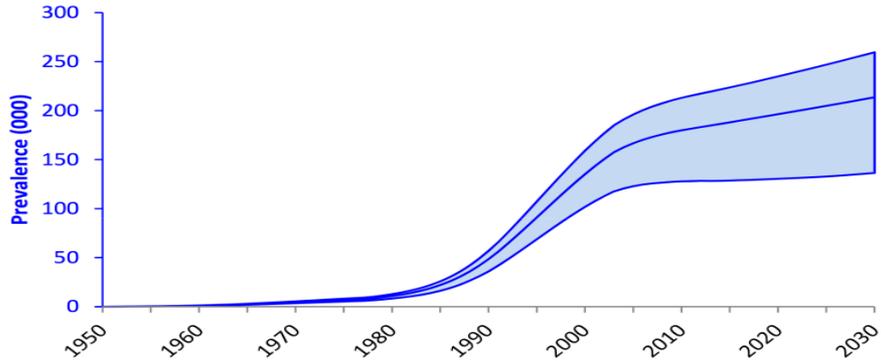
The Present and Future disease burden of hepatitis C virus infections with today's treatment paradigm

Iran	
Viremic HCV Infections (000)	
2014 Est.	186
2030 Est.	213
Percent Change	14%
HCC Cases	
2014 Est.	110
2030 Est.	330
Percent Change	195%
Liver Related Mortality	
2014 Est.	140
2030 Est.	430
Percent Change	215%
Decompensated Cirrhosis	
2014 Est.	150
2030 Est.	660
Percent Change	350%
Compensated Cirrhosis	
2014 Est.	3500
2030 Est.	10 800
Percent Change	210%

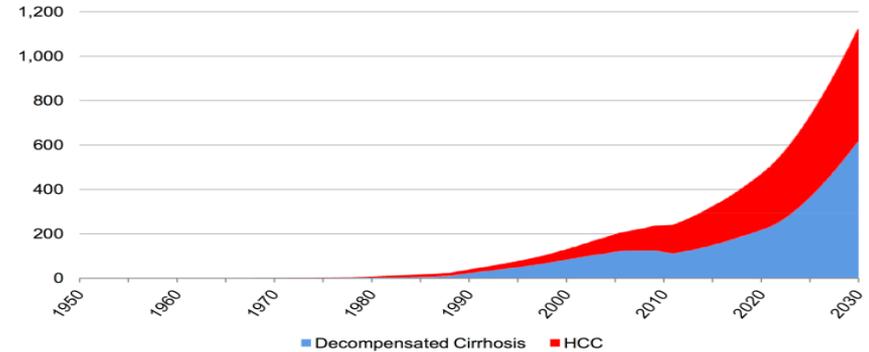
In 2007, it was estimated that 75% of the infected population in Iran had been infected by IDU. Based on expert opinion, 4% of all HCV cases were infected via transfusion procedures. The majority of new cases are due to IDU, which is reflected in the young age distribution.

In 2014, there were an estimated 186 000 (123 000–250 000) viraemic individuals in Iran, increasing 14% to 213 000 individuals in 2030.

The projection of HCV disease burden by 2030, assuming the current diagnosis and treatment uptake and utilising interferon-based treatment

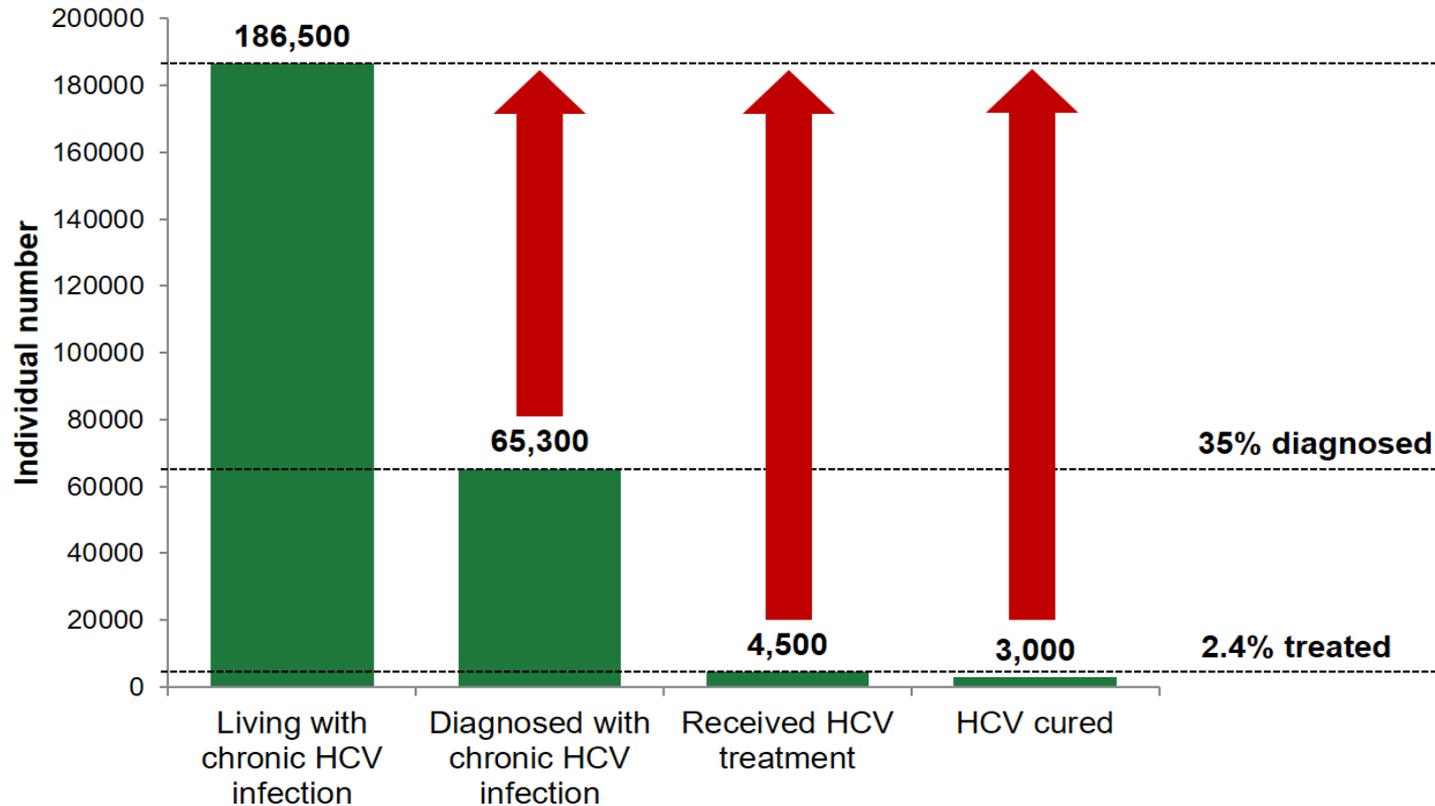


Number of individuals living with HCV infection (Shaded area represents 95% confidence interval)



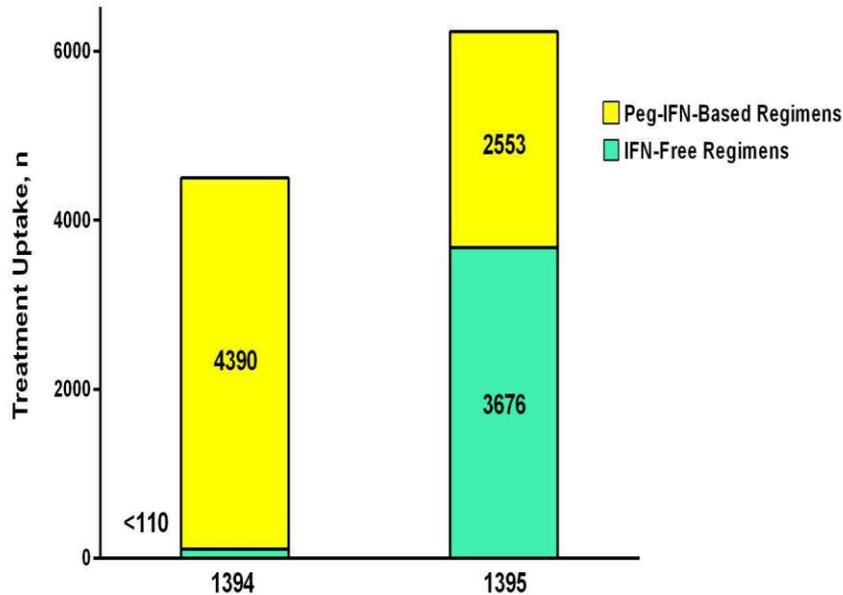
Number of individuals with HCV-related decompensated cirrhosis and hepatocellular carcinoma

HCV care cascade in Iran (2014)



Hajarizadeh B, Razavi-Shearer D, Merat S, Alavian SM, Malekzadeh R, Razavi H. Liver disease burden of hepatitis C virus infection in Iran and the potential impact of various treatment strategies on the disease burden. Hepatitis Monthly. 2016;16(7):e37234

How many cases have treated with DDAs in Iran



- During two years from 2013-2014 : 230 cases have received the Harvoni, Brand of Sof-Led in Iran
- It was not affordable for all patients in Iran.
- Most of cases were treated with support of Disabled Organization
- The insurance companies did not accept to cover

But in one year (2015-2016): More cases with insurance coverage with generic type

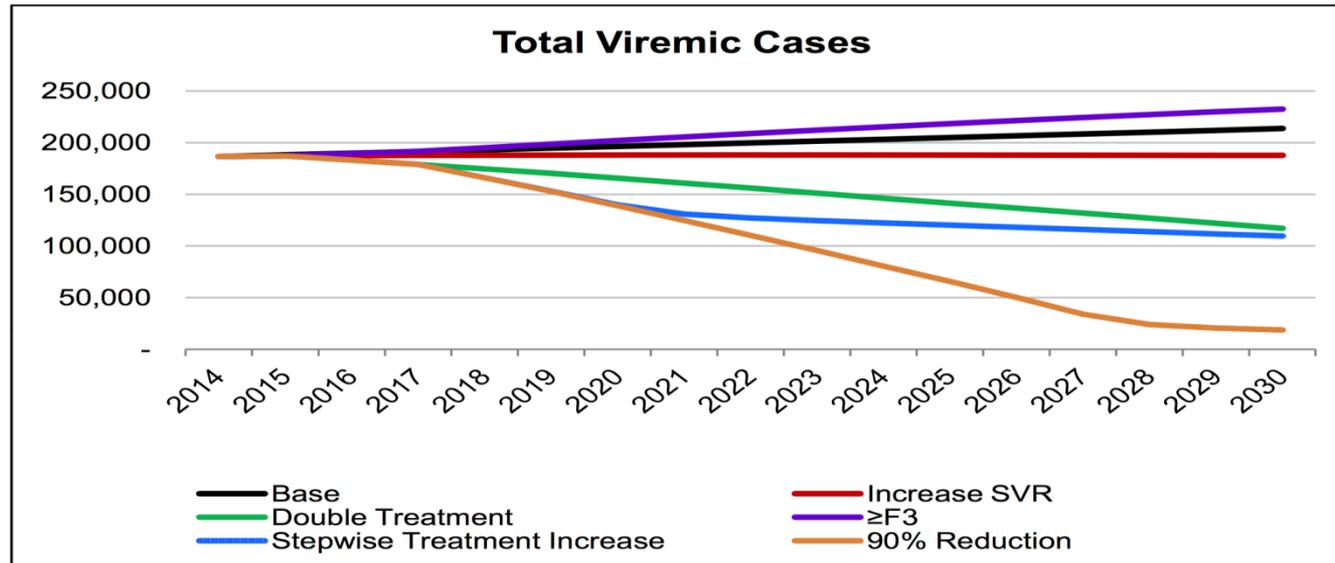
The projection of HCV disease burden by 2030, assuming the increasing diagnosis and treatment uptake and utilising interferon-free treatment

Stepwise treatment increase:

- 9,000 (2016 -2017)
- 18,000 (2018 - 2030)

90% reduction:

- Same treatment uptake as previous scenario
- Increase in diagnosis
 - 6,000 (2016 - 2017)
 - 12,000 (2018 - 2019)
 - 24,000 (2020 - 2030)



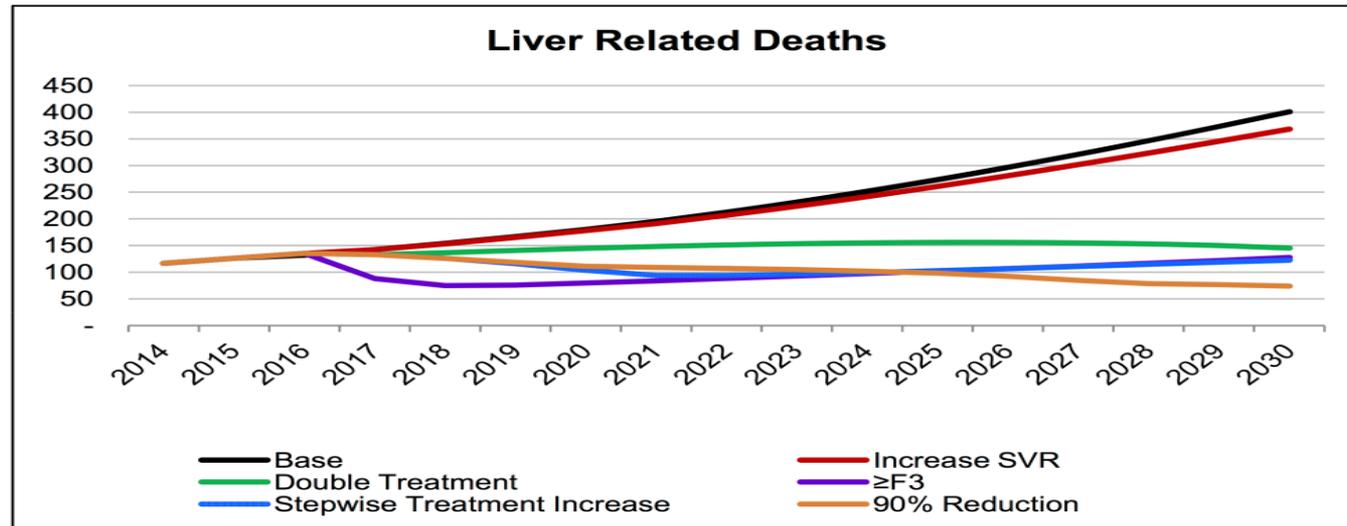
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 - 12,000 (2018 - 2019)
 - 24,000 (2020 - 2030)



WHO Objectives and Iran

1. Prevention

- A. Increasing information in general and priority populations
- B. Improving blood safety
- C. Harm reduction

2. Diagnosis

- A. Strengthening the national laboratory system
- B. Screening priority populations
- C. Improving point of care diagnosis

3. Treatment

- A. Expanding treatment
- B. Implement appropriate models of care
- C. Providing chronic care

4. Delivering for equity

- A. Strengthening human resources
- B. Ensuring access to good quality and affordable hepatitis medicines and diagnostics
- C. Promoting an enabling environment

Elimination is Achievable

If:



- Improvements in infection control as “Mass Screening”
- Resources for surveillance systems to detect new infections
- Implementation of improved HCV testing
- Cost/Benefits of New Treatment Strategies
- Special Attention to the Special Patient Groups
- Prevention Strategies
- Increase General Awareness

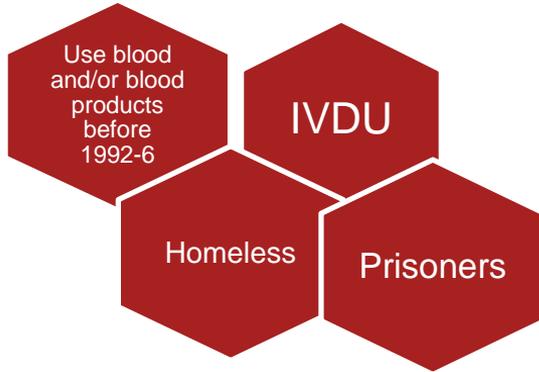
At Risk Populations

- People who inject drugs (PWID)
- Prisoners
- Thalassemia and Hemophilia patients
- Hemodialysis
- Transfusion history before 1375
- People with war and motor vehicle injuries
- Sex workers
- HIV infected people
- Sanitation workers
- First degree relatives of HCV infected people
- Medical and healthcare workers
- Organ transplant receivers
- Newborns of HCV infected mothers



The Necessity of Mass Screening

Screening strategies in different geographical regions should be considered according to varies risk factors



Design Special Screening Program

Governmental Organizations

Non-governmental organizations

Special Patient Groups Need Special Attention

HIV/HCV co-infections

Thalassemia and Hemophilia

Hemodialysis

Liver Transplantation

Next Steps for Elimination of HCV Infection

Is Elimination of HCV Feasible?



The use of new treatment strategies has provided opportunities to eradicate HCV infection.

However, effective treatment is not enough; there are still major issues that must be taken into account, some of which we address in below.

Access or not access to DDAs

- In many countries, people don't have access to a course of brand-name direct-acting antiviral drugs due to their high cost -- as much as between \$30,000 - \$94,000 a patient.

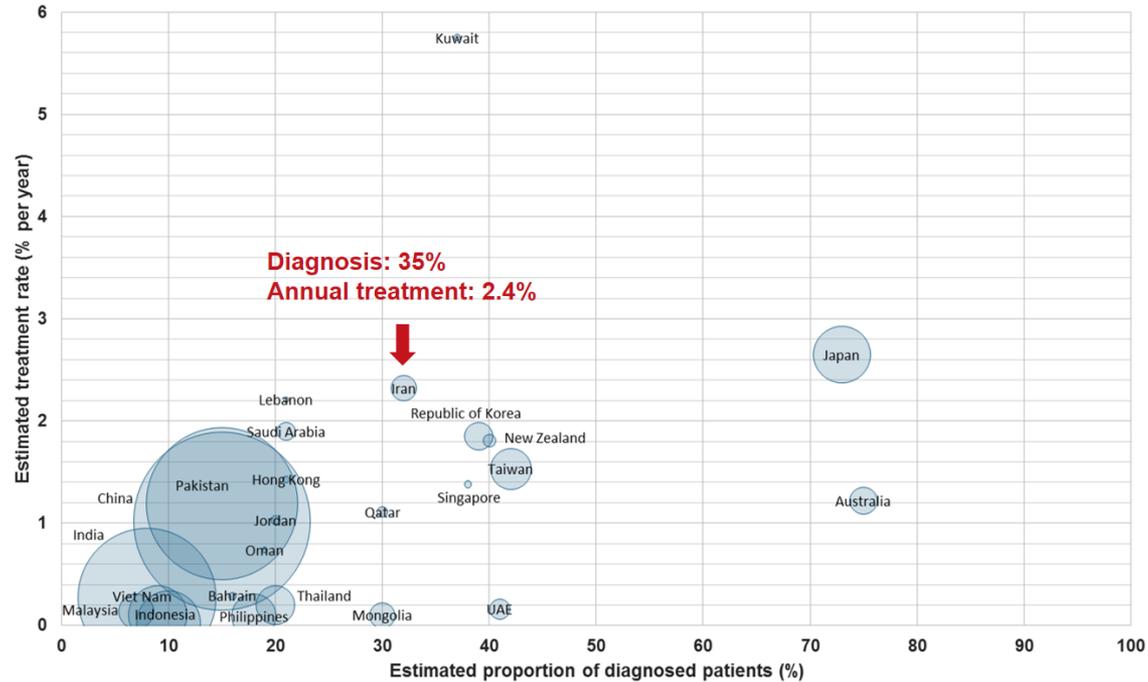
Expensive treatments for common conditions are unaffordable for most health system, even if they are cost effective.

They are also very expensive.

Barcelona, EASL 2016



Diagnosis rate



HCV Elimination Programs in Iran

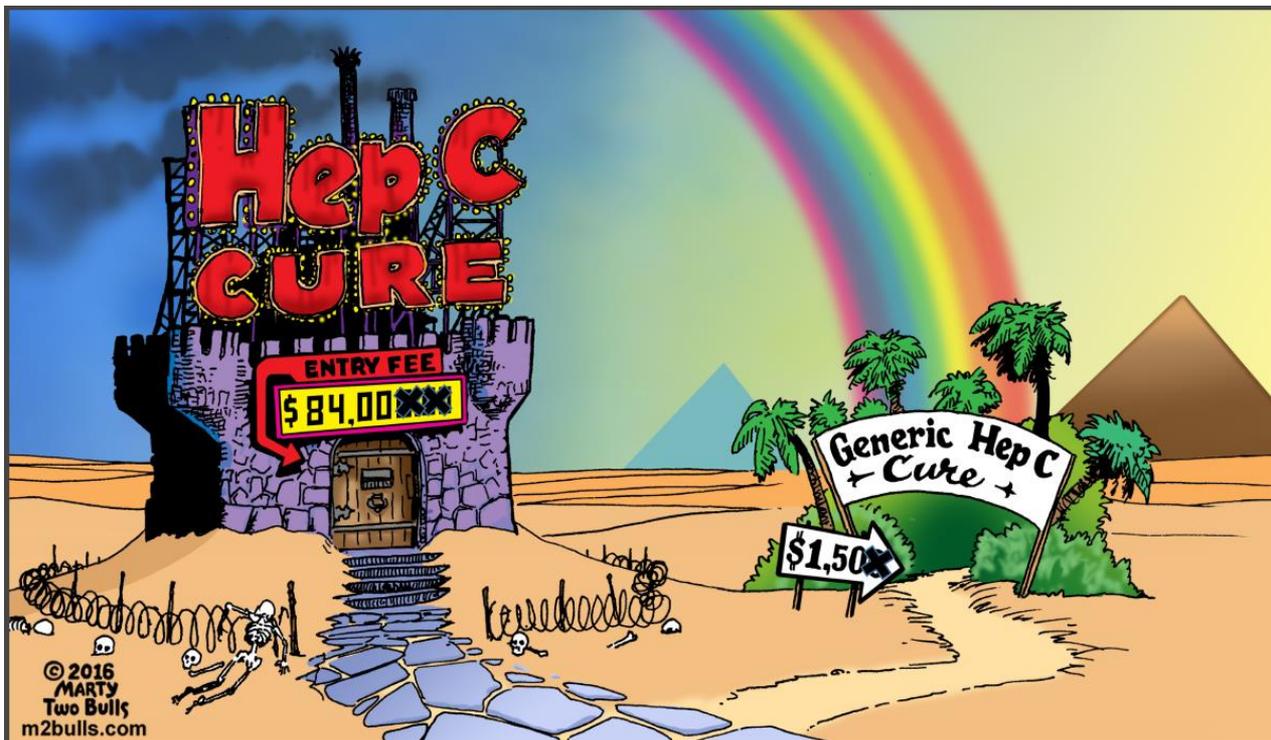
- Prison-based programs
 - 10% HCV-seropositive
 - 35%-50% HCV-seropositive in inmates of addiction
- Community-based programs in high-risk groups
 - Including PWIDs, FSW and non-IV drug users
 - 10%-50% HCV-seropositive

HCV Elimination Programs in Iran

- Thalassaemia and hemophilia
 - Less than 1000 cases need treatment
- Chronic kidney disease
 - Around 5% HCV-seropositive
 - Sofosbuvir should not be used
- Other groups
 - People with history of blood transfusion before 1996
 - People with war injury
 - People with history of leprosy

Generic medications may be a significant role in elimination

- Generic medications do **not** require the background research and development studies to support registration.
- There is a higher motivation to use the generic drugs in therapy of HCV infected patients in developing and developed countries.
- India, Egypt and Iran are pioneer in developing generic brands for therapy of HCV infection.



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Hep C Cure Club

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Cost/Benefits of New Treatment Strategies



Strategies should be a

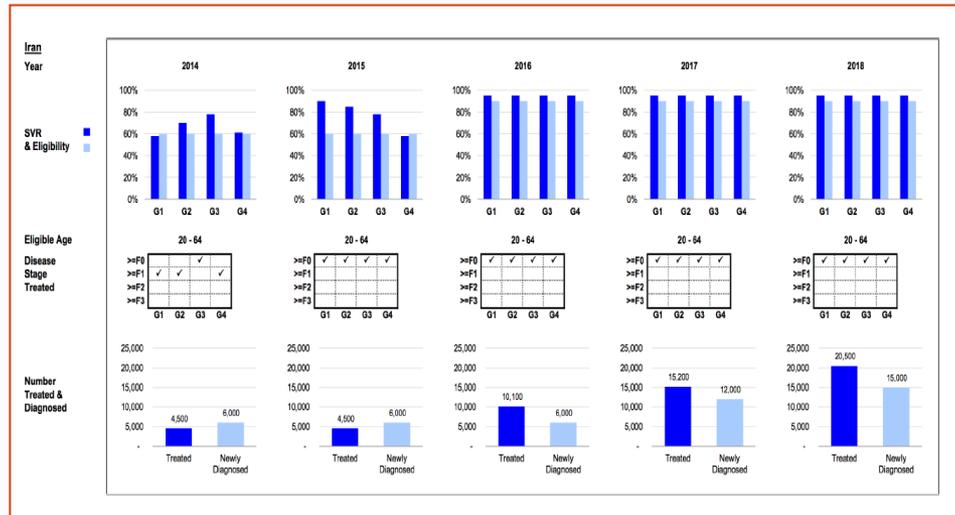


access to new treatments

Governments should aim to achieve complete health insurance coverage and allocate part of their budgets to help ensure that all patients with HCV infection can access new drugs to treat this infection, which are very expensive.

Elimination will be possible by 2030 in Iran

While increasing efficacy has moderate declines in all HCV-related indicators, an aggressive treatment strategy would eliminate HCV in Iran, bringing the viremic prevalence to approximately **0.02%** by **2030**.



Increase treatment by **5000** individuals every year starting in **2016** until reaching a maximum treatment of **20 500** in **2018**. By treating over **20 000** individuals annually for **5 years**, the treatment could then decrease to below current levels by 2030.

Due to the large numbers of individuals being treated, there would need to be an increase in diagnosis rate to keep pace with the treatment rate. Utilizing a risk factors approach could make diagnosis, treatment and thus **elimination, a real possibility in Iran**.

Strategies for control

- Community-wide education initiatives are needed for alerting people to the modes of transmission and facilitating a social climate at-risk people feel comfortable to seek testing and where harm-reduction strategies can be implemented.
- Active case finding according to main risk factors and therapy

5. Increase General Awareness About HCV

- ✓ Fifth, the **media** should be used to **increase general awareness about HCV infection** and help the process of identifying patients with HCV infection
- ✓ In **Iran**, we have established a nongovernmental organization, **Hope Health Club** to increase knowledge in the general population about viral hepatitis.
- ✓ www.hopehealthclub.com



Distributing books and brochures



Face to Face Training



Health ambassadors



Animations



Iran Connected NOhep Program

worldhepatitisday.org/en/supporters

About WHD 2016 Photos Map of impact Campaign supporters Campaign materials About hepatitis English

CAMPAIGN SUPPORTERS

The following organisations are supporting the World Hepatitis Day campaign.

If you would like to add the support of your organisation please submit your organisation details and logo using the link below.

[Add your support](#)

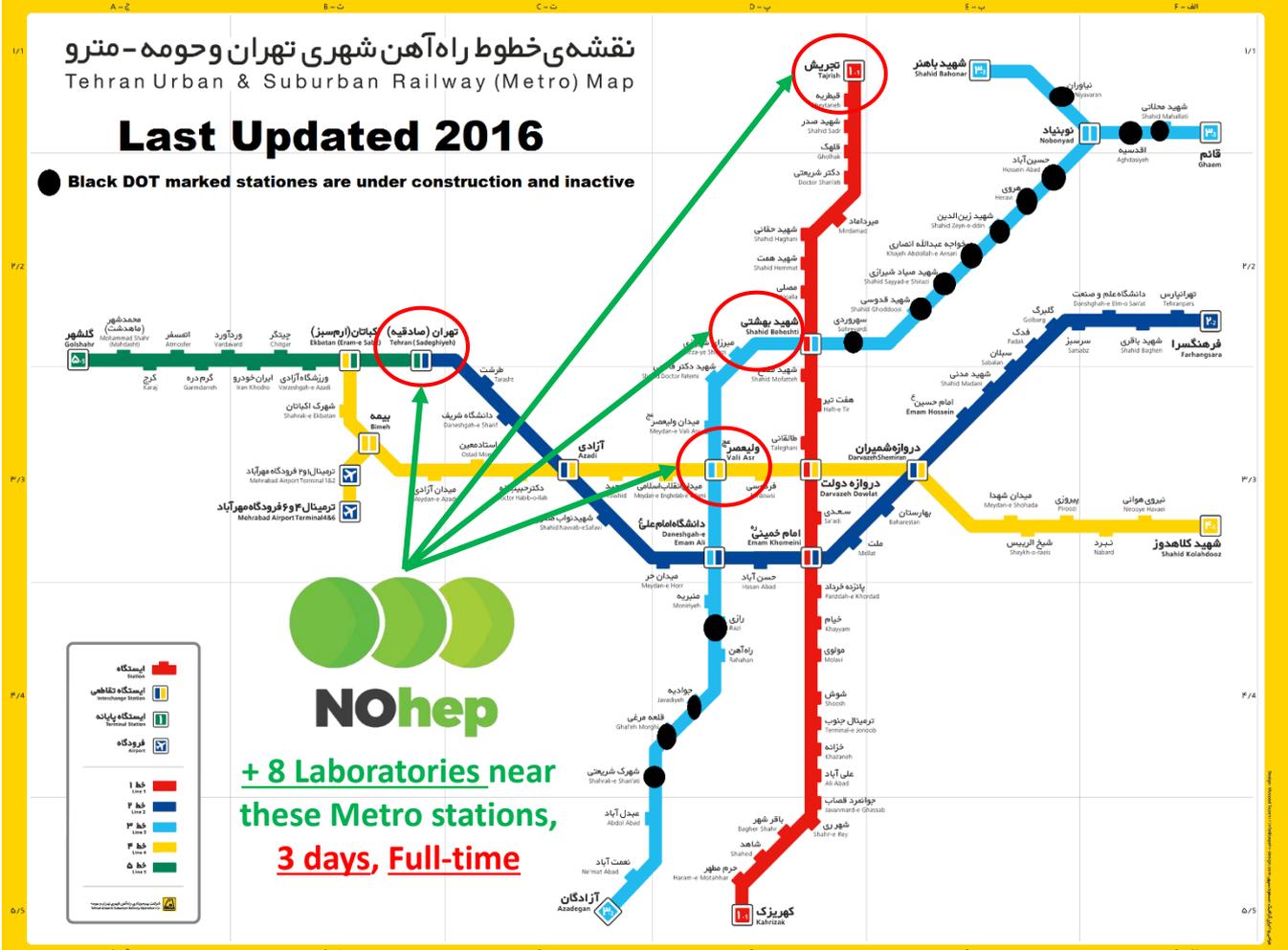


The image displays a webpage titled "Iran Connected NOhep Program" which serves as a call to action for campaign supporters. The main content area features a large green banner with the heading "CAMPAIGN SUPPORTERS" and a message encouraging organizations to submit their details and logos. Below this banner, four logos are presented in a row: a circular logo with four colored dots (blue, grey, teal, grey), the Asian Institute of Medical Sciences (AIMS) logo, the Iran Hepatitis Network logo (featuring a red triangle and Persian text), and the VOCES for Hepatitis logo (featuring a stylized figure and the text "VOCES for Hepatitis").

نقشه‌ی خطوط راه‌آهن شهری تهران و حومه - مترو Tehran Urban & Suburban Railway (Metro) Map

Last Updated 2016

● Black DOT marked stations are under construction and inactive



+ 8 Laboratories near these Metro stations, 3 days, Full-time

	ایستگاه
	ایستگاه تقاطع
	ایستگاه پایانه
	فرودگاه
	خط ۱
	خط ۲
	خط ۳
	خط ۴
	خط ۵





Materials for 1st Iran Hepatitis Awareness Campaign
Iran Hepatitis Network, Tehran, Iran



Our new model

- Within the Universities
- Within the Hospitals
- In teaching Hospitals
- Around Iran



ELSEVIER

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Clinical Microbiology and Infection

journal homepage: www.clinicalmicrobiologyandinfection.com



Letter to the Editor

Awareness Campaign in (bio)Medical Students in Iran: a model for increasing the knowledge regarding hepatitis B and C

Dear Sir,

We read with interest the Lanini et al.'s review entitled 'Hepatitis C: Global Epidemiology and Strategies for Control' [1]. They mentioned healthcare-associated transmission as an important transmission route of hepatitis C virus (HCV), both for patients and healthcare workers. This transmission could be dramatically decreased by training healthcare workers regarding prevention and harm reduction. Iranian biomedical students have poor knowledge on the different aspects of hepatitis B virus (HBV) and HCV infections, such as their prevention, diagnostic methods and transmission routes [2]. Awareness campaigns can remarkably increase the knowledge of their target population [2]. After the successful experience of holding the first Hepatitis Awareness Campaign (HAC) at World Hepatitis Day 2016 by Iranian biomedical students [2], the Iran Hepatitis Network aimed to run the second HAC between 22 and 28 October, which has been considered as National Hepatitis Week each year from 2000 in Iran.

For this purpose, we used social networks to announce the Second HAC and call biomedical students to register in this campaign. We also designed brochures, posters and NOhep badges. Other NOhep materials were downloaded from the World Hepatitis Alliance website (www.worldhepatitisalliance.org). A photography competition was designed to motivate students to take photographs and share them in the social networks. In all, 343 biomedical students from 12 medical sciences universities registered at the

[2,4,5] were available in the booth. The trained students also tried to motivate other students to check their serum level of hepatitis B surface antibody and take HBV vaccine if immunization was found to be inadequate. The HAC was successfully held by these students simultaneously in all 21 stations.

We think such campaigns can also introduce viral hepatitis as an important health issue and attract more supporters within medical science universities.

Funding

No external funding was received.

Transparency declaration

SMA is director of the Iran Hepatitis Network. HK-S and MEB were the chief executive managers of the second Iran Hepatitis Awareness Campaign.

Authors' contribution

HK-S was responsible for concept and design. HK-S, MEB and SMA were responsible for data collection and drafting the manuscript; and SMA was responsible for critical revision and study supervision.

Public awareness is important and effective in Iran

ریشه کنی هیاتیت سی در کشور ایران



جناب آقای صالح میرزا آقایی نازنگر سخنا و نوابین و معاون سلامت شبکه هیاتیت افراسی در حال انجام تست هیاتیت به مسئولین وزارت بهداشت هیاتیت

انجام تست هیاتیت دکتر سعید سعید علویان همدانی با روز جهانی هیاتیت "سه ماهه برای زندگی و سلامت این سالم آرمایش بهداشت"



معاونان سلامت هیاتیت افراسی با هم پر تلاش شبکه هیاتیت افراسی در راستای ریشه کنی هیاتیت سی با سال ۱۳۹۱



کسب دانشجوی اطلاع رسانی به سلامت روز جهانی هیاتیت بر روی فرودگاه مهرورد بهی



**Public awareness is important and effective in Australia
It can be more effective if it would be targeted to the right population**







International Feedbacks





AASLDPresident
@AASLDPresident

My name is Keith Lindor, MD, FAASLD. I am the 2016 President of the American Association for the Study of Liver Diseases (AASLD).
[#LiverLeader](#)

FOLLOWS YOU

TWEETS	FOLLOWING	FOLLOWERS
380	259	581

Liver Immunology
aasld.org/#BasicSymposium

AASLD LIVER MEETING
#AASLD2016

RETWEETS 6 LIKES 6

3:33 PM - 23 Oct 2016

#nohep



AASLnews

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593



NOhep... @NO_hep · 2h
Want to send us a #SaturdaySelfie from where you are? Be sure to include the
#Iran! #NOhepGoesGlobal



Hepatitis Scotland
@hepscotland

National third sector lead for viral hepatitis in Scotland. facebook.com/hepatitisscotl...
hepscot.org The Big Red C

TWEETS 2,540 FOLLOWING 441 FOLLOWERS 1,406

Hepatitis Scotland
#WorldHepatitisDay Is the 28 July 2016
Visit: hepscot.org/hepawareness
to learn about 1 patient's Hep C journey and their experiences

#MyHepCStory #HepCBook

RETWEET 1 LIKES 7

LOWN
593





EASL Tehran

THC 7

هفتمین کنفرانس بین المللی
هیاتیت تهران

**7th International
Tehran Hepatitis Conference**

تهران - سالن همایش های رازی
Razi Convention Center, Tehran, Iran

۱۵ تا ۱۷ شهریور ۱۳۹۶
6-8 September, 2017

۱۸ شهریور شیراز و بیرجند



Hepatitis Monthly "Aware Today, Alive Tomorrow"

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IN THE FIELD OF HEPATOLOGY

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Journal Metrics	
IF	SNIP
1.932	0.76
SJR	P
0.444	158
Rejection Rate	64.8%

Current Issue: 16(12), Dec 2016

Review Article

Liver Illness and Psychiatric Patients

► Paul Carrier, Marlène Debette-Graen, Murielle Girard, Jérémie Jacques, Philippe Nubukpo, Véronique Loustaud-Ratti

Cited by: CrossRef (0) | Scopus (0)

Molecular Tracing of Hepatitis C Virus Genotype 1 Isolates in Iran: A N5SB Phylogenetic Analysis with Systematic Review

► Khashayar Hesamizadeh, Seyed Moayed Alavian, Azar Najafi Tineh Shabankareh, Heidar Sharafi

Cited by: CrossRef (0) | Scopus (0)



همکاران رسمی شبکه هیاتیت ایران

همکاران (مراکز، آزمایشگاه)



National Feedbacks

برپایی کمپین های اطلاع رسانی هیاتیت در واحد های دانشگاه آزاد اسلامی

سه شنبه ۱۶ آذر ۱۳۹۵ - ۰۸:۰۵

اختصاصی ایسکانیوز:

مدیر بخش محققان جوان شبکه هیاتیت ایران با اشاره به برگزاری کمپین اطلاع رسانی هیاتیت در واحد علوم دارویی گفت: دانشگاه آزاد اسلامی واحد علوم دارویی تلاش می کند تا اقدامات لازم در جهت برگزاری این کمپین در نقاط دیگر نیز صورت گیرد که از جمله این اقدامات می توان به برنامه ریزی های لازم در زمینه برگزاری این کمپین برای کودکان کار اشاره کرد.



اخبار مرتبط

۱ برنامه هایی در راستای تشویق به اقامه نماز در دانشگاه ساری

۲ کسب مقام سوم مسابقات جهانی تیراندازی با کمان در واحد علوم دارویی

۳ هیاتیت B به مرحله کنترل رسیده است/ بیماران هموفیلی واکسن هیاتیت B را دریافت کنند

به گزارش ایسکانیوز، حمیدرضا کریمی ساری مدیر بخش محققان جوان شبکه هیاتیت ایران با اشاره به برگزاری کمپین هیاتیت که در ۱۳ آذر در واحد علوم دارویی برگزار شد به ایسکانیوز گفت: امسال یک حرکت جهانی به نام nohep که مخفف no hepatitis است آغاز شد. این حرکت بیانگر آن است که زمانی که داروهای جهانی مقابله با هیاتیت وجود دارد به طوری که هیاتیت C به طور صددرصد قابل درمان است و هیاتیت B به وسیله واکسن قابل درمان است ، چرا ما نتوانسته ایم پس از این همه سال هیاتیت را ریشه کن کنیم؟ این حرکت در مسیر ریشه کن کردن هیاتیت های ویروسی پیش می رود.

وی افزود: ایران در ابتدای این حرکت جهانی به کمپین nohep پیوست، اولین کمپین ما در ۷ مرداد روز جهانی هیاتیت به صورت همزمان با تمام دنیا آغاز به کار کرد که طی آن به دانشجویان دانشگاه علوم پزشکی تهران آموزش های لازم در زمینه هیاتیت داده شد تا در



یکی ندا درباره ما

ارسال به دوست



و ۸ دانشگاه علوم



بی ما

IHN, EASL and AASLD Collaborations

- ✓ Lastly, **Iran Hepatitis Network**, **European and American associations for the study of liver diseases** could increase their involvement in the Middle East by running **educational courses** about HCV management



Barriers to treatment

- ✓ New advances in introducing oral direct acting antiviral (DAA) therapies that can achieve cure in 95 – 98% of patients
- ✓ Reducing the costs
- **Still the treatment rate is LOW**



دنیا با وجود ترامپ در آمریکا در ریشه کنی هپاتیت سی موفق نخواهد شد.



The main barriers for Hepatitis C elimination now

Who are at high risk and we should focus on them now!

✓ Those who received blood and blood products before 1996

✓ **So** What is the role of government now for HCV elimination?



Unexpected High Prevalence of Hepatitis C in Special Groups; Patients with Leprosy are Forgotten



In Baba-baghi village, Tabriz, more than **50%** of patients with leprosy were found to have Anti-HCVAb. The patients had no known major risk factors of HCV transmission in Iran.

Maybe you are the one, who finds the next group

• برای ریشه کنی هپاتیت سی تا سال 1410 نیاز است تا:

• (1) تشخیص سریع، ساده و ارزان در دسترس همگان قرار گیرد.

• (2) غربالگری وسیع، بخصوص در گروه های پرخطر (زندانیان، معتادین تزریقی، کودکان کار با رفتارهای جنسی پرخطر، افراد دارای سابقه دریافت خون و فرآورده های خونی قبل 1375 و...) انجام شود.

• (3) موارد مثبت، شناسایی و درمان شوند.

• (4) داروهای ارزان در دسترس تمامی موارد شناسایی شده باشد.

• (5) به گایدلاین های بومی درمان هپاتیت سی توجه بیشتری شود.

• (6) گایدلاین های درمانی در اختیار متخصصین داخلی و حتی پزشکان عمومی قرار داده شود و پیگیری درمان بیماران، به سطوح پایین تر (پزشکان عمومی) سپرده شود.

• (7) هزینه درمان رایگان سالانه حداقل 20 هزار بیمار مبتلا به هپاتیت سی، توسط دولت تامین گردد.

• (8) آگاهی عمومی، نسبت به این بیماری افزایش یابد، تا از انتقال فرد به فرد جلوگیری شود.

• (9) راهکارهایی جهت کاهش ریسک ابتلا، در افراد گروه پرخطر در نظر گرفته شود.

• (10) جلوگیری از ابتلای مجدد پس از درمان هپاتیت سی، در گروه های پرخطر بخصوص معتادین تزریقی.

• (11) آگاهی پزشکان و همکاران دیگر گروه پزشکی نسبت به برنامه ی جهانی ریشه کنی هپاتیت های ویروسی (Nohep) افزایش یابد.

• (12) نظام جمع آوری اطلاعات دقیق ایجاد شود، تا تعداد موارد تشخیص داده شده و درمان شده در آن ثبت شود.

• ما پزشکان، پرستاران، ماماها، متخصصین علوم آزمایشگاهی و... تعهد می نمایم در راه رسیدن به این هدف بزرگ گام برداریم.



✓ Hepatitis C Virus Infection

➤ Patients Findings with some barriers

- **Special Screening Program for high Risk Groups**

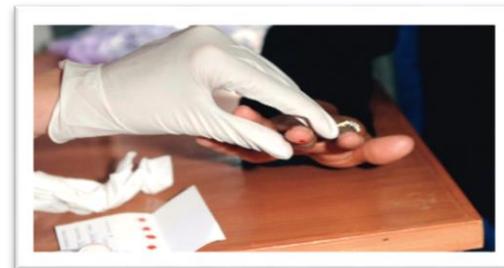
- Risk-based screening strategies can identify about 70-80% of patients with HCV

- **The Necessity of Mass Screening**

- The feasibility of such an approach is highly dependent on the economic situation of a given country.

Point of Care Diagnosis

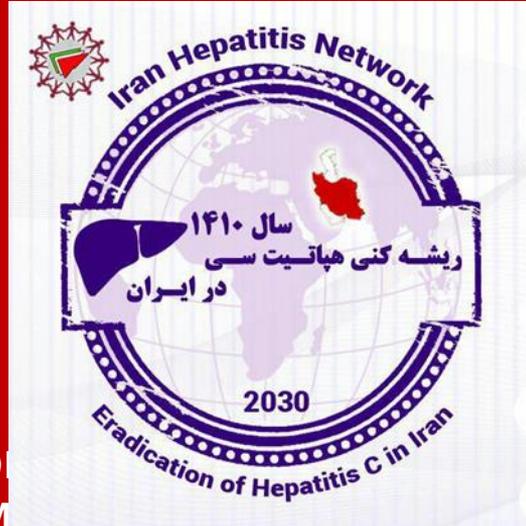
- Dried Blood Spots (DBS)
- Feasible and reliable alternative to point-of-care assays for viral hepatitis
- HCV RNA
- HCV Genotyping
- Solves the problem of storage and shipment of samples
- Can be stored for weeks at ambient temperature without clinically significant degradation of nucleic acids
- Use of DBS is limited by the small amount of plasma per blood spot and less efficient nucleic acid extraction, which gives a reduced sensitivity in samples with low-level viremia.
- With regard to hepatitis C, this rarely has any practical consequences, as most untreated patients have viral loads (far) above 1000 IU/ml.



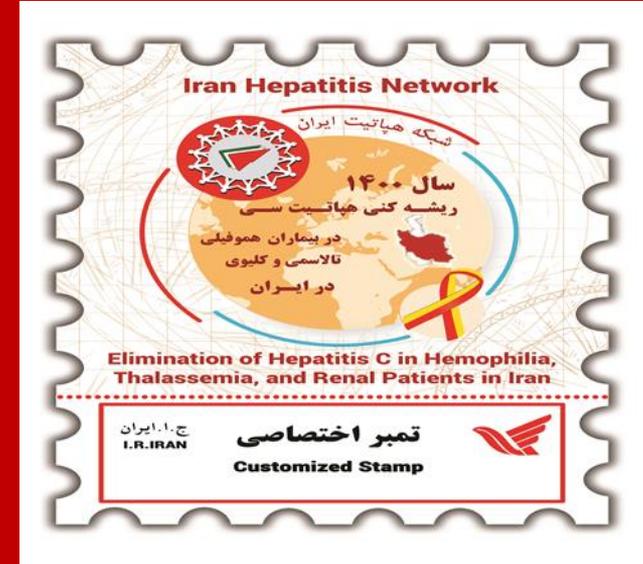
Point of Care Treatment

- Drugs have changed from Interferon based therapy to DDA therapy
- Once daily
- Less adverse effects
- Based on WHO recommendations treatment should move from specialty clinics and referral hospitals into primary health care settings and point of care settings

Elimination of HCV infection in Iran will be in 2030 but in thalassemia and hemophilia is possible in 2020!



✓
Solution



Work

More support for therapy

More attention to blood safety

More education the nurses in thalassemia centers Increase the thalassemia patients awareness regarding the issue.