THE NOhep GUIDE FOR MEDICAL PROFESSIONALS

5 PRINCIPLES FOR TAKING ACTION TO ELIMINATE VIRAL HEPATITIS
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In 2016, the World Health Organization’s (WHO) Global Health Sector Strategy on Viral Hepatitis was adopted by 194 countries, with the elimination of viral hepatitis by 2030 as a public health threat its overarching vision.² If countries meet a set of prevention and treatment targets outlined in the strategy, annual deaths will drop by 65% and 10 million lives will be saved by 2030.³
Aimed at uniting all stakeholders in the hepatitis community, NOhep was launched in 2016 to build global awareness of the disease, to mobilise both individuals and organisations and to support the delivery of the targets outlined in WHO’s Global Health Sector Strategy on viral hepatitis.

Since its official launch, NOhep has rapidly become a global movement with a presence in over 100 countries across the world. Six governments have officially endorsed NOhep and thousands of civil society activists are now raising awareness, educating peers and advocating for its elimination at a national level.

A crucial member of the NOhep community is the medical professional. Whether it is in a hospital, a clinic or a community outreach centre all healthcare workers can play a role in spreading the NOhep message as a NOhep Visionary!

NOhep Medical Visionaries are passionate and committed to combating hepatitis in their role as a medical professional, helping to bridge the gap between medicine and public health. To date, hundreds of medical professionals have signed up to the NOhep Visionaries Programme, committing their time and expertise to drive action to meet the 2030 targets.

This guide has been developed to expand medical professionals’ knowledge and provide tools and resources needed to become a NOhep Medical Visionary. The 5 NOhep Medical Visionaries’ Principles, presented later in this guide, will provide practical support and guidance to unlock the powerful role medical professionals can play in achieving viral hepatitis elimination.
FOREWORD

“As NOhep Medical Visionaries, we know that eliminating viral hepatitis as a public health threat by 2030 is achievable.

We experience first-hand the unnecessary human suffering that viral hepatitis brings, and are frustrated by the economic burden it places on both individuals and society. We actively fight viral hepatitis each and every day but must unite with others both within and outside of the medical community if we are to deliver our vision. Together we are stronger.

With your help we can become even stronger. Demonstrate your commitment by becoming a NOhep Medical Visionary today. In return, we have developed this guide to provide ideas, information, and resources to support you.

Thank you for helping us to make the elimination of viral hepatitis our next greatest achievement.”

NOhep steering committee
THE NOhep MEDICAL VISIONARIES

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2. HOW TO USE
HOW TO USE THIS GUIDE

IN THIS GUIDE, YOU WILL BE INTRODUCED TO THE IMPORTANT ROLE OF THE MEDICAL PROFESSIONAL AS A NOhep MEDICAL VISIONARY. YOU WILL BE PRESENTED WITH A PRACTICAL GUIDE FOR DELIVERING PROGRESS TOWARDS HEPATITIS ELIMINATION USING THE 5 PRINCIPLES OF A NOhep MEDICAL VISIONARY. THE PRINCIPLES PROVIDE GUIDANCE AND PRACTICAL STEPS YOU CAN TAKE IN ORDER TO DELIVER ACTION.

RESOURCES

1. Fighting Viral Hepatitis
2. NOhep Medical Visionaries Principles

TOOLS

1. Roadmap to elimination discussion guide
2. Viral hepatitis disease discussion guide
3. The role of medical professionals in viral hepatitis elimination guide
4. Engaging stakeholder communities guide
5. NOhep and viral hepatitis core slide deck

Click on the buttons below to navigate to each different section of the guide. You can return to this navigation hub at any point by clicking the contents button on each page. Alternatively, navigate through each page in turn with the backwards and forwards buttons.
3. THE BIG PICTURE

SOS Hepatitis Burkina Faso
VIRAL HEPATITIS
A GLOBAL KILLER

Each year, viral hepatitis (A-E) is responsible for 1.34 million deaths a year (including liver cancer, acute liver failure and cirrhosis). This number exceeds the deaths from tuberculosis (1.2 million), HIV/AIDS (1 million) and malaria (719,000). Unlike tuberculosis and HIV, the number of deaths due to viral hepatitis is on the increase. Indeed, with yearly new hepatitis C infections – 1.75 million – outnumbering the patients starting treatment in the same period – 1.1 million – it is unlikely that the viral hepatitis epidemic will simply fade away.

CHRONIC HEPATITIS B AND HEPATITIS C ARE LIFE-THREATENING INFECTIOUS DISEASES THAT MAY CAUSE SERIOUS LIVER DAMAGE, LIVER CANCER, AND PREMATURE DEATH. IT IS ESTIMATED THAT 257 MILLION PEOPLE LIVE WITH HEPATITIS B AND 71 MILLION PEOPLE LIVE WITH HEPATITIS C GLOBALLY. HEPATITIS B AND HEPATITIS C ARE RESPONSIBLE FOR MORE THAN HALF OF ALL NEW LIVER CANCER CASES AND ONE IN EVERY 12 CANCER DEATHS.
HEPATITIS B AND HEPATITIS C ARE SILENT EPIDEMICS, HITTING CHILDREN AND MARGINALISED POPULATIONS THE HARDEST.

Nine out of 10 people living with viral hepatitis are unaware that they are infected – that’s more than 290 million people across the globe. Only 20% of those living with hepatitis C and less than 10% living with hepatitis B are aware of their condition.\(^1\)

Hepatitis B often spreads unnoticed from mother to child at birth, putting infants at high risk: 80-90% of babies infected with hepatitis B will have chronic infection without immediate vaccination and one in four will die of liver-related causes during adulthood.

Globally, millions of people have been infected in healthcare settings via the use of unsterilised equipment and unscreened blood transfusions. Although disproportionately affecting low- and middle-income countries, injection safety remains an issue in the developed world. People living with HIV/AIDS are also hard-hit by hepatitis B and hepatitis C, as are other marginalised groups with poor access to care, such as migrants and indigenous populations.

“I contracted hepatitis C when a nurse reused syringes during chemotherapy. As a member of a family of healthcare providers, I was stunned when I learned how I contracted the disease, and outraged that many, many other people continue to contract it in the same way. Healthcare transmission of viral hepatitis is completely preventable! We can eliminate healthcare transmission of viral hepatitis by making sure every injection is a safe one.”

Evelyn McKnight
Founder of HONOReform, USA.
VIRAL HEPATITIS IS PREVENTABLE, TREATABLE AND CURABLE

The majority of viral hepatitis-associated deaths are preventable. Vaccination provides protection against hepatitis B, and safe blood and injection practices and harm reduction are highly effective at protecting against hepatitis B and hepatitis C.

Existing treatment can effectively manage hepatitis B and prevent liver cancer and new treatments can cure hepatitis C in nearly all patients. The solutions for putting an end to the hepatitis B and hepatitis C epidemics exist, but they need to be made accessible for all patients.

In 2016, the first ever Global Health Sector Strategy on Viral hepatitis was developed by WHO, with the goal of eliminating viral hepatitis as a major public health threat by 2030. To do this, countries committed to scaling up treatment from 1% to 80% of those living with viral hepatitis. This is the first time such commitments have been made to make the elimination of viral hepatitis a reality.

If we unite to meet the targets by 2030, this would mean a 90% reduction in new chronic infections and a 65% reduction in mortality due to viral hepatitis.

“[Elimination] is the goal of a lifetime. As someone who has seen many patients dying from viral hepatitis, curing all of them and preventing new cases would be the ultimate achievement.”

—Dr Alessio Aghemo
MD, PhD, Italy

World Hepatitis Day 2016
ELIMINATING VIRAL HEPATITIS WILL ENHANCE PEOPLE’S LIVES

Elimination would help ensure healthy futures for children; protect, empower and reduce stigma among marginalised populations; and support and protect commitments to people living with HIV.

“For decades I lived with hepatitis C, lived with worry and fear, lived with stigma and the dread of discrimination. Now I just live. I am so thankful to be cured of hepatitis C”

Lisa Carter
Hepatitis SA, Australia

ELIMINATION STRATEGY AT A GLANCE

Vaccinations
Implement comprehensive hepatitis B virus immunisation programmes.

Prevention Of Mother-To-Child Transmission
Provide timely administration of hepatitis B virus birth-dose vaccine and antiviral treatment to viable pregnant women who are infected.

Harm Reduction Services
Implement comprehensive package of harm reduction services and link to hepatitis and harm reduction services.

Injection, Blood, & Surgical Safety
Establish and implement national policies and practices on injection, blood and surgical safety and establish systems of surveillance haemovigilance and monitoring.

Treatment Of Chronic Disease
Integrate and improve hepatitis testing services, prioritise treatment by increasing access, establish national hepatitis treatment and care guidelines and provide quality treatment and address comorbidities.
ELIMINATING VIRAL HEPATITIS WILL STRENGTHEN HEALTHCARE SYSTEMS

Enhanced infection control services, including injection and blood safety and vaccination for health workers will improve quality standards in healthcare systems and reduce transmission of healthcare-acquired illnesses for both patients and providers. Infrastructures put in place to deliver hepatitis B immunisation can help increase coverage of other childhood vaccinations and ensure that new-borns receive appropriate postnatal care. Prevention of mother-to-child hepatitis B transmission can improve access to perinatal care, ensure healthy pregnancies and promote institutional deliveries. In addition harm reduction efforts will help prevent the spread of other blood borne viruses such as HIV, particularly among people who use drugs. Prevention of non-medical transmission via barbers, tattoos etc. is also required.

- By 2030, we can live in a world in which 90% of people with hepatitis B or hepatitis C are diagnosed, and 80% of them are receiving effective treatment.¹
- Where everyone is given blood and injections that are safe.
- Harm reduction services will ensure those who need it have access to sufficient, safe equipment.
- At least 90% of infants will be vaccinated from birth.
- We will take pride in safeguarding the health of the whole community, in particular our most vulnerable.

"Everything is possible. Egypt is a country with the highest prevalence of hepatitis C in the world, but it is leading the way towards elimination. We were a committee of volunteers who had absolutely nothing. If you are passionate you can achieve anything."

Professor Manel El-Sayed
MD, Egypt

¹ According to a落地 Africa report, 90% of people with hepatitis B or hepatitis C are diagnosed, and 80% of them are receiving effective treatment.
GLOBALLY, ONLY A HANDFUL OF COUNTRIES ARE ON TRACK TO ELIMINATE HEPATITIS C IN GENERAL POPULATIONS AND ONLY 72 COUNTRIES ON TRACK TO ELIMINATE HEPATITIS B IN PERSONS UNDER THE AGE OF 5 BY 2030.  

In 2017, only 82 countries had established national plans to tackle viral hepatitis and less than half of these reported dedicated funding for such plans.  

A lack of national and international investments in hepatitis programmes, especially in low- and middle-income countries, means that countries are struggling to finance national plans. As a result, the vast majority of patients remain undiagnosed, with only 1% of those infected able to access treatment and even the birth dose vaccine, which can cost less than 20 cents, not being delivered in 48% of countries worldwide.

“Elimination should include not just eradication through prevention, but elimination of the current suffering of those with the disease. Vaccines for hepatitis B are available; curative medicines are available for hepatitis C. So, curative medicines are needed for hepatitis B and vaccines are needed for hepatitis C. And, then, mechanisms to deliver these resources and care to the appropriate populations is needed.”

Dr Timothy Block  
Ph.D. USA
THE RACE TO ELIMINATION BY 2030

What is required to get us across the finish line:
- Improving data
- Closing gaps in prevention
- Accelerating innovation
- Scaling-up testing and treatment

FINISH

Elimination by 2030

BARRIERS TO OVERCOME
- Access to affordable testing and diagnosis
- High prices of medicines
- Lack of international public sector procurement
- Inadequate interdisciplinary approach to linkage-to-care
- Staff resources and training
- Availability of facilities
- Technical and logistical challenges
- Low awareness and education
- Stigma and discrimination
- Lack of national and international funding
- Low level of national plans for hepatitis

Without coordinated action at all levels of the viral hepatitis community to overcome these barriers, we will miss our chance to make the elimination of viral hepatitis our next greatest achievement.
THE ROLE OF MEDICAL PROFESSIONALS IN THE ELIMINATION OF VIRAL HEPATITIS

THE WORLD HAS AN EXTRAORDINARY OPPORTUNITY TO END THE HEPATITIS C AND HEPATITIS B EPIDEMICS, BUT THIS WILL NOT HAPPEN WITHOUT TARGETED ACTION FROM MEDICAL PROFESSIONALS.

Medical professionals have a key role to play in elimination by (i) educating peers that elimination is possible; (ii) increasing awareness of the issue amongst other key audiences; (iii) enabling other medical professionals to play their role and act interdisciplinarily; (iv) facilitating collaboration between key stakeholders; and (v) becoming an ambassador by promoting action and advocating change.

“Eliminating viral hepatitis means that a glaring inequity is removed, and that world class researchers and clinicians can demonstrate some of the stunning successes in modern science and medicine by reaching all of those living with viral hepatitis, starting with those most in need.”

Professor Chris Cunningham
New Zealand

WE HAVE THE TOOLS AND WE KNOW WHAT TO DO

KEY TARGETS FOR ELIMINATION
- Hepatitis B Vaccination (90% coverage)
- Hepatitis B PMTCT (90% coverage)
- Blood Safety (100% screening)
- Harm Reduction (Access to 300 clean needles/syringes a year)
- Injection Safety (0% unsafe injections)
- Testing and Diagnostic Services (90% diagnosed)
- Treatment (80% treated)

ACTIONS REQUIRED TO ACHIEVE TARGETS
- Complete birth dose of hepatitis B vaccine
- Safe Vaccination
- Blood Donations Screened
- Clean Syringes
- Increase in diagnosis
- Increase in treatment
- Dedicated financing

LEVERS FOR CHANGE
- Education
- Advocacy
- Funding
- Political will
- Anti-stigma and discrimination

PMTCT, prevention of mother-to-child transmission
4. PRINCIPLES OF A NOhep MEDICAL VISIONARY
BECOMING A NOhep MEDICAL VISIONARY

This section provides YOU with a practical guide for delivering progress and change – using the 5 Principles of a NOhep Medical Visionary. These principles provide guidance and actionable steps that you can take TODAY to work towards the elimination of viral hepatitis.

Over the following pages, you will find information, ideas and tools to help you implement these principles and play your part in a powerful global effort to eliminate viral hepatitis.

NOhep Medical Visionaries are medical professionals committed to the elimination of viral hepatitis by 2030.

- They maximise the role of medical professionals in improving hepatitis diagnosis, linkage-to-care, treatment and chronic care;
- They make a real difference to elimination efforts through bold and innovative actions (be that at a local, regional, national or international level) that advance progress and bring about change; and
- They actively engage peers, other medical professionals, budget holders, patients, the public and political decision-makers to advocate for change.
5 PRINCIPLES OF A NOhep MEDICAL VISIONARY

1. EDUCATE PEERS
   You educate peers that elimination of viral hepatitis is achievable

2. RAISE AWARENESS
   You raise awareness amongst key audiences of viral hepatitis as a human and economic issue, and the urgent need to act

3. ENABLE OTHERS
   You enable other medical professionals to play their role in eliminating viral hepatitis

4. FACILITATE COLLABORATION
   You facilitate collaboration between key stakeholders, teaming up with NGOs and the hepatitis community to advance viral hepatitis elimination efforts

5. VOCAL AMBASSADOR
   You are an ambassador for all efforts to eliminate viral hepatitis, promoting action and driving change that will help achieve ambitious goals
PRINCIPLE 1
YOU EDUCATE PEERS THAT ELIMINATION OF VIRAL HEPATITIS IS ACHIEVABLE

WHY?
Many healthcare professionals are still unaware that elimination of viral hepatitis as a public threat by 2030—specifically control of hepatitis B and elimination of hepatitis C—is both feasible and achievable through a combination of prevention, testing and treatment initiatives.

WHAT?
Control of viral hepatitis may be achieved through: \[10, 11\]

**Prevention**
- Vaccination against hepatitis B virus
- Prevention of perinatal and early childhood hepatitis B infection through infant vaccination, including universal immunisation programmes targeting infants
- Catch-up vaccination and other prevention strategies in key affected populations, including persons who inject drugs (PWID), men who have sex with men (MSM), and sex workers
- Prevention of viral hepatitis transmission in healthcare settings through blood and injection safety
- Harm reduction services such as syringe and needle distribution to PWID and substitution treatment of drug addiction

**Testing**
- Greater access to affordable viral hepatitis tests that have been approved by WHO
- Screening programmes targeting persons from populations with high seroprevalence or who have a history of risk exposure / behaviour (e.g. HIV-positive persons, PWID, MSM, sex workers, disproportionately affected birth cohorts, as well as other groups such as indigenous peoples, persons who are incarcerated, and persons of transgender)
- The use of simple, non-invasive diagnostic tests to assess the stage of liver disease and eligibility for treatment
- Linkage-to-care of all persons that tested positive

**Treatment**
- The use of antiviral agents for hepatitis B to suppress viral replication, prevent progression to cirrhosis, and reduce the risk of hepatocellular carcinoma (HCC) and liver-related deaths; preferentially using nucleos(t)ide analogues with a high barrier to drug resistance as first-line treatment according to the international clinical guidelines
- The use of direct-acting antivirals (DAAs) for hepatitis C virus treatment, which offer cure rates above 90% and a more tolerable treatment journey (oral administration, shorter treatment duration, and fewer serious adverse events than the previous interferon containing regimens) according to the international guidelines
Improved access to treatment through the availability of generics and licensing agreements in accordance with national policies

Assessing all adults with chronic hepatitis C infection for antiviral treatment, including PWID

Improving care of those with viral hepatitis, specifically:
- Regular monitoring for disease progression and early detection of HCC
- Improving retention in care and adherence to antiviral therapy
- Offering alcohol reduction/cessation interventions to reduce progression of liver disease

Through such interventions, WHO’s Global Health Sector Strategy targets for 2030 can be achieved.

HOW?

Four quick steps to get started

1. Hold a meeting or informal conversation with a colleague to discuss what more you can do to combat viral hepatitis
2. Deliver a presentation to colleagues on opportunities for action – and consider inviting an expert guest speaker to discuss the latest clinical and public health developments and innovations in the fight against viral hepatitis
3. Share interesting and relevant media and social media content with your peers, highlighting action on viral hepatitis elimination
4. Create an interdisciplinary group of colleagues and peers to meet regularly and exchange knowledge and experiences

OTHER RESOURCES TO HELP

- Use the roadmap to elimination discussion guide as a resource to support your conversations with peers and colleagues. This outlines key messages and data associated with achieving viral hepatitis elimination and provides a framework and flow to enable the presentation of a credible ‘elimination story’
- Educate your peers on the key recommendations from the WHO guidelines for chronic hepatitis B virus and hepatitis C virus infections, which are the foundation of control and elimination of viral hepatitis. Download copies of the hepatitis B and hepatitis C guidelines to share in your clinical practice or workplace
- Share WHO’s Global Health Sector Strategy targets – via the roadmap to elimination discussion guide – ensuring peers understand the specific goals of eliminating viral hepatitis
PRINCIPLE 1 CASE STUDY

DR NORAH TERRAULT

“Because I have seen many patients who didn’t make it. I don’t want to see more deaths from liver disease or liver cancer. The hepatitis C cure is so transformative. It changes their lives, they can move on and put the disease behind them.”

Engaging healthcare professionals at the community setting

Dr. Norah Terrault is Professor of Medicine and the Director of the Viral Hepatitis Centre at the University of California San Francisco. She is recognised internationally for her work related to viral hepatitis, especially in the setting of liver transplantation.

There is a sense of urgency in Northern California, an urgent need for community interventions to combat the growing hepatitis epidemic. 14 out of 15 Northern California counties have higher rates of hepatitis C incidence than the state average.

In California alone, more than 27 million people are living with hepatitis C, and that number is growing with the rise in infections due to the opioid crisis.

A large proportion of this group is unaware of their infection, leading to long-term health complications including cirrhosis and liver cancer.

Recognising the detrimental impact of hepatitis C on both her patients and the healthcare system, leading hepatologist Dr Terrault rolled-out a community-wide educational project.

Entitled Project Echo Plus, this initiative established Project Echo, which was developed by Dr Sanjeev Arora in 2008. It aims to rapidly expand the number of healthcare workers in underserved areas by developing the capacity of healthcare workers to safely and effectively treat hepatitis C.

The UCSF Project Echo started in November 2016 and after its 18 months, had on-boarded 51 ‘spokes’ across 21 counties in the state. The focus has been on Northern and Central California, where the prevalence of new hepatitis C cases is highest. In addition to biweekly virtual clinics that provide didactic and case-based learning, the UCSF Project Echo offers quarterly in-person immersion for new hepatitis C providers - called HCV 101 - at UCSF.
The combined educational opportunities in-person and virtually was felt to more rapidly allow primary providers to become actively engaged in treatment. Dr Terrault hasn’t stopped there. Recognising that the elimination of viral hepatitis won’t be achieved without scaling up diagnosis, she has launched the second phase of the project. This includes instigating a partnership with The University of California, Davis, to utilise their extensive tele-medicine network to increase awareness and knowledge among healthcare workers. The project is going to use this network and turn it into tele-mentoring system, rapidly scaling up their capability to combat this disease.

In addition, she has employed Jennifer Sleplin as an outreach liaison officer who goes into communities to identify areas of support needed to tackle the disease. A registered nurse and someone who has lived with hepatitis C, she founded a non-profit organisation, HepCareStream, that raises awareness, tests and provides treatment whilst educating healthcare workers in those areas. Over the next three years, HepCareStream aims to travel to 13 counties to recruit primary care providers into an educational programme for hepatitis C. They will also provide community education and testing free of charge throughout the entire region.

Building capacity and increasing education amongst healthcare workers is a key principle of the NOhep Medical Visionary Programme. Both Norah and Jennifer demonstrate the importance of advocacy in achieving real-world impact in the elimination of hepatitis.
PRINCIPLE 2
YOU RAISE AWARENESS AMONGST KEY AUDIENCES OF VIRAL HEPATITIS AS A HUMAN AND ECONOMIC ISSUE, AND THE URGENT NEED TO ACT

YOU RAISE AWARENESS OF THE BURDEN OF VIRAL HEPATITIS, AS WELL AS THE POSITIVE IMPACT OF DIAGNOSIS AND TREATMENT, AMONGST PEERS, PARTNERS AND THE PUBLIC. THROUGH SHARING OF DATA AND STORIES, YOU CREATE BOTH MOTIVATION AND A SENSE OF URGENCY.

WHY?
Key stakeholders – including fellow medical professionals, partners, patients and the public – must understand the human and economic impact of viral hepatitis, to be motivated to drive change.

WHAT?
As detailed in Section 3 of this guide, viral hepatitis is a global killer responsible for 1.34 million deaths a year. Chronic hepatitis B and hepatitis C are life-threatening infectious diseases that cause serious liver damage, cancer, and premature death, with 257 million and 71 million people living with hepatitis B and hepatitis C, respectively.

Eliminating hepatitis B and hepatitis C as public health threats by 2030
- Will save approximately 10 million lives
- Will reduce inequalities and enhance lives, ensuring healthy futures and reducing stigma among marginalised populations
- Is cost-effective and feasible², protecting patients against catastrophic healthcare costs and productivity losses

HOW?
Three quick steps to get started
1. Include moving and impactful stories, whether from your own experience or from NOhep resources, when presenting on or discussing the impact of viral hepatitis
2. Utilise data from your own clinical practice to demonstrate the positive impact of treatment and diagnosis in a meaningful and motivational way, e.g. the increase in hepatitis diagnoses since the launch of an awareness programme, or the number of hepatitis C cures achieved to date
3. Post flyers in your local practice or area of work to inform others of the burden of viral hepatitis disease, emphasising moving stories of the impact of the disease on individuals and communities. Highlight that you are a NOhep visionary and provide your contact details for others to get involved if they wish

OTHER RESOURCES TO HELP
- Visit the World Hepatitis Alliance’s ‘Wall of Stories’, a collection of stories from around the world, to find moving and impactful patient testimonials to use as part of your presentation. Available at: www.worldhepatitisalliance.org/wall-stories
- Use the viral hepatitis disease discussion guide as a resource to support your conversations with peers and colleagues. This outlines key messages and data associated with the burden of disease and provides a framework and flow that highlights the human and economic cost of viral hepatitis.
PRINCIPLES OF A NOhep MEDICAL PROFESSIONAL

4. CASE STUDY
DR PHILLIP BRUGGMANN, HEAD OF INTERNAL MEDICINE AT THE ARUD CENTERS FOR ADDICTION MEDICINE IN ZURICH

Dr Bruggmann is an internal medicine specialist and has worked as head of internal medicine at Arud in Zurich, Switzerland since 2003. He is also currently serving as head of the executive board of Swiss Hepatitis. In this function he leads the Swiss Hepatitis Strategy project. He is also a founding member and former president of International Network on Hepatitis Care in Substance Users.

Engaging PWID and working in the community to educate healthcare practitioners and give them the knowledge and skills to expand hepatitis C care beyond hospital settings

As the founding member and former President of the International Network on Hepatitis in Substance Users (INHSU), an international organisation dedicated to scientific knowledge exchange and translation, Dr Philip Bruggmann embodies the role of a NOhep Medical Visionary. Not only is Dr. Bruggmann an internal medicine specialist, he also currently serves as head of the executive board of Swiss Hepatitis. In this capacity, he leads the Swiss Hepatitis Strategy project and uses his position to advocate for the prevention, treatment and care of HIV and hepatitis C viral infection, particularly among people who use drugs.

Dr Bruggmann firmly believes multi-stakeholder collaboration is key to the elimination of viral hepatitis, both in and outside healthcare settings. For example, the Swiss Hepatitis Strategy network combines the expertise of civil society groups, patient organisations, doctors, the scientific industry, health authorities, politicians, health insurance and pharmaceutical companies, to tackle all aspects of the disease from testing and treatment, to engaging high-risk groups. Dr Bruggmann also advocates for other medical professionals like addiction medicine doctors as well as general practitioners (GPs) to play a key role in diagnosing and linking patients to care.

Over the last few years, Dr Bruggmann has been working with opiate substitution units and GPs who are licensed to prescribe

“The legacy of the interferon drugs lives on within the PWID community, the treatment was horrible and had very bad side effects. That’s still the challenge, to spread the message that the new treatments work faster and have no side effects”
opiate substitutions. He realised that many GPs and opiate substitution units in Switzerland were not testing for hepatitis or offering treatment, which meant that many people were slipping through the net.

In response, he and his organisation began to work with relevant medical professionals, providing training and education on how to test for viral hepatitis and oversee the patient’s treatment. A key element in his work was to educate his colleagues about the new treatments for hepatitis C and the positive impact they have on the lives of their patients. Investing in peer-to-peer education has had a huge impact on the numbers of people living with the disease who are now seeking out treatment.

One of the key principles of being a NOhep Medical Visionary is a willingness to collaborate with all internal and external stakeholders to advance action towards our goal of elimination. Dr Bruggman is an excellent example of what can be achieved when we all work together.
PRINCIPLE 3
YOU ENABLE OTHER MEDICAL PROFESSIONALS TO PLAY THEIR ROLE IN ELIMINATING VIRAL HEPATITIS

YOU SUPPORT MEDICAL PROFESSIONALS – AT ALL LEVELS – TO HELP THEM UNDERSTAND THE ROLE THEY CAN PLAY IN COMBATING VIRAL HEPATITIS

WHY?
Medical professionals are the gatekeepers to the elimination of viral hepatitis and as such have a powerful role to play in achieving its elimination. This includes everyone from specialists already working in the field of hepatitis through to the wider healthcare community such as staff working in sexual health or community outreach centres. Ensuring all medical professionals are aware of the actions they can take – no matter how big or small – is key to unlocking their potential.

WHAT?
Those working in the field of viral hepatitis (e.g., hepatologists, gastroenterologists, infectious disease specialists and specialist nurses) have a responsibility to deliver optimal treatment strategies to all patients, whether following national or regional guidelines, or the recommendations set out in the WHO hepatitis B and hepatitis C guidelines.

Members of the wider healthcare community can also help in different ways:
- Everyone can practice injection safety, including reporting on and preventing drug diversion by colleagues
- Midwives can promote and administer hepatitis B birth dose vaccinations
- Nurses and outreach workers can promote awareness and testing services in the local community
- Social and drug and alcohol workers can promote safe behaviours and testing, utilising their connections with at-risk groups
- Medical staff in prisons should be aware of high rates of viral hepatitis and encourage testing and treatment
- Laboratory staff can ensure blood safety procedures are implemented

Beyond these direct interventions, healthcare professionals can use their influential positions to help promote change:
- Education – e.g., providing training to colleagues or sharing resources with patients
- Advocacy – e.g., sharing a #NOhep tweet to help spread the message
- Funding – e.g., engaging with and influencing decision makers
- Political will – e.g., building alliances and communicating viewpoints
- Anti-stigma and discrimination – e.g., initiating local campaigns

Furthermore, all healthcare professionals can become NOhep Medical Visionaries themselves and contribute even further towards achieving the 2030 targets through educating peers, raising awareness, supporting peers, collaborating and being a vocal ambassador for all activities towards eliminating viral hepatitis.

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4. **PRINCIPLES OF A NOhep MEDICAL PROFESSIONAL**

**HOW?**

**Four quick steps to get started**

1. Write a letter or email to medical professionals in your local network detailing what actions you are taking towards eliminating viral hepatitis and invite them to join you and/or play their own role.

   - Include a copy of the role of medical professionals in viral hepatitis elimination guide to provide ideas.

2. Be aware of drug diversion as a threat to injection safety and report any suspected cases.

3. Be innovative - why not involve medical students through coursework or workshops to design new or improved services and campaigns?

4. Send a weekly #NOhep tweet highlighting different roles medical professionals can play to eliminate viral hepatitis.

**OTHER RESOURCES TO HELP**

- **Review** The role of medical professionals in viral hepatitis elimination guide for more ideas on the potential roles or contributions of different medical professionals in the viral elimination fight. Use this to help focus discussions with peers and colleagues based on their HCP type.

- **Share** copies of relevant guidelines within your practice and local network, whether national or local guidelines, or WHO hepatitis B and hepatitis C guidelines.

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*Myanmar Liver Foundation*
Principle 3: Case Study A
Dr. Su Wang

Su Wang, MD, MPH is an internal medicine physician and the Medical Director of the Center for Asian Health at Saint Barnabas Medical Center in Livingston, New Jersey. Dr. Wang served as the Assistant Director of Medical Affairs at the Charles B. Wang Community Health Center in New York City, where she led its nationally recognised hepatitis B programmes, including clinical care programmes, community based research, a primary-care based model of care and community outreach. She also sits on the board of the World Hepatitis Alliance.

Working with peers to develop Innovative ways to screen people at risk of viral hepatitis in Emergency Departments

Liver cancer incidence and mortality rates are on the rise in the US, with chronic hepatitis C and hepatitis B infections being the leading causes. The majority of people infected with hepatitis B and hepatitis C are unaware of their diagnosis, even though hepatitis C is now curable with oral medication in 8-12 weeks, and hepatitis B is preventable with vaccination and treatable with medication. Scaling-up hepatitis screening is of high public health importance for early diagnosis and care of these patients, to reduce morbidity and mortality from cirrhosis and liver cancer.

In USA, CDC recommends hepatitis C screening for all baby boomers (people born 1945-1965) and hepatitis B screening for people born in hepatitis B endemic countries. Recognising that first point of care settings like Emergency Departments (ED) offer key opportunities to increase screening, Su Wang and her colleagues at Saint Barnabas Liver Center, New Jersey, USA initiated a programme to utilise the electronic health record (EHR) system and create an automated process to link ‘at-risk’ groups with hepatitis C and hepatitis B tests.

The first step in the process was to create a multidisciplinary working group, including members from the ED, informatics, laboratory and billing departments, to create protocols and implement the process. The protocol was simple: if patients are born between 1945 to 1965, have bloodwork ordered by the provider and have not had previous hepatitis C diagnosis or testing, the protocol triggers an hepatitis C antibody (HCVAb) test. If the HCVAb result is positive, it reflexes to hepatitis C RNA (viral load) to confirm infection. Nursing staff and patients are then notified of the testing, and patients may opt out if they choose.
For hepatitis B, a Country of Birth (COB) field was created as part of registration to identify people from endemic countries. If the patient meets qualifications, a protocol triggers a hepatitis B surface antigen (HBsAg) test. EHR alerts of positive test results notify both nursing staff and a patient navigator (PN). The PN initiates contact with the patient to set up timely follow-up. The PN evaluates whether the patient already has a primary care physician (PCP) or specialist to provide hepatitis evaluation and provides lab results to those providers. If not, the PN can directly schedule patients to be seen at the Saint Barnabas Liver Center, where viral hepatitis evaluation and care are provided.

Over a 2-month period in 2018, 2,097 patients were hepatitis C eligible with 1,480 (71%) screened and 47 (3%) HCVAb+ and 14 (0.9%) confirmed infected by hepatitis C RNA. Five patients (36%) have been linked to care thus far.

Dr Wang and her colleagues initiated hepatitis B and hepatitis C screening of high-risk patients in emergency departments to close the gap on the low diagnosis rates and to increase people being linked to care. Through multi-disciplinary collaboration, she has set about change that has already had a remarkable impact on the lives of people in her community.

Of the 1,149 eligible for hepatitis B screening, 835 (73%) were screened and 14 (2%) were HBsAg+, and 2 (14%) have been linked to care, a rate still very low for both hepatitis B and hepatitis C. Before the screening, no baseline of eligible hepatitis B patients could be ascertained because country of birth was not collected, but 309 HBsAg tests were ordered in 2016 with 2 (0.7%) hepatitis B infected patients identified.

**CASE STUDY B**

**PROF. MOJCA MATICIC, MD, PHD**

Prof. Mojca Maticic, MD, PhD is a co-founder of a multidisciplinary national network for the management of viral hepatitis in PWID. She also chairs the National Viral Hepatitis Expert Board in Slovenia that set up the strategy, plans and clinical guidelines for the management of viral hepatitis in 1997 and is responsible for all the necessary current updates and activities. As a member of AIDS Commission at the Ministry of Health of Slovenia, she reports the activities of the Expert Board to the policy makers. Read more about the Slovenian model for management of viral hepatitis in PWID here: www.ncbi.nlm.nih.gov/pmc/articles/PMC4178585/
PRINCIPLE 4
YOU FACILITATE COLLABORATION BETWEEN KEY STAKEHOLDERS TO ADVANCE VIRAL HEPATITIS ELIMINATION EFFORTS

YOU ENGAGE WITH KEY COMMUNITIES TO SHARE CONTENT, RESOURCES AND BEST PRACTICES THAT COULD IMPROVE WIDER VIRAL HEPATITIS ELIMINATION EFFORTS – ENTERING INTO MEANINGFUL PARTNERSHIPS TO SHARE AND ADVANCE THE NOhep PRINCIPLES.

WHY?
Working together with key stakeholders – namely civil society groups and patient organisations – is an efficient way to achieve a common goal: the elimination of viral hepatitis.

WHAT?
Civil society groups and patient organisations are powerful change agents in the fight to eliminate viral hepatitis. Collaboration with such groups represents an ideal opportunity to share best practice, knowledge, and lessons from other settings, all of which are key tenets to local and global change. Civil society groups and patient organisations typically have clear and realistic objectives, use resources wisely, have good relationships with funders, and know how to secure media coverage. Through sharing your insights and expertise with such groups, you can create shared value and strengthen elimination efforts, with the added benefits of wider exposure, contacts and resources. Most groups welcome medical professionals to ensure the board has a wide range of skills, experience and knowledge.

HOW?

Four quick steps to get started

1. Search for civil society groups and patient organisations in your area and make contact to offer support. Many may already have projects underway that will benefit from your collaboration. You can use the World Hepatitis Alliance’s member page to find patient groups in your country.

2. Develop a relevant case study from your clinical practice (of a new initiative or best practice example) to share or present at the next available opportunity.

3. Consider how collaborating with a civil society group or patient organisation could help your practice to do more. Do you need volunteers to promote testing services, or could a representative visit to provide education to your patients?

4. Talk to politicians and health authorities, raising awareness to inform, educate and apply political pressure, where necessary.

OTHER RESOURCES TO HELP

- Engage others using the Engaging stakeholders communities guide, a ‘how to’ guide to engaging with wider stakeholder communities such as patient groups, the public, civil society groups, and political and funding decision-makers, designed to enable a more focused discussion with each various stakeholder type.

4. Talk to politicians and health authorities, raising awareness to inform, educate and apply political pressure, where necessary.
PRINCIPLE 4  CASE STUDY

DR SAEED HAMID, IBNE SINA PROFESSOR AND CHAIRMAN, DEPARTMENT OF MEDICINE THE AGA KHAN UNIVERSITY, KARACHI, PAKISTAN

Dr Hamid was a Member of the Executive Council, Asian Pacific Association for the Study of the Liver, 2006-2010, and currently serves as President, Pakistan Society for the Study of Liver Diseases. He has been a long serving member of the WGO Guidelines and Publications committee and also a member of many guideline development groups of the APASL. He chaired the WHO Guidelines Development Group on hepatitis C treatment guidelines, which were released in April 2016.

“...I think there has been a consistent effort to raise awareness and that is now being evidenced. Many people are now aware and are very engaged in the effort. National stats are not just known, they have seen friends and relatives die of this disease.”

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**Working with communities to increase capacity**

10% of the global hepatitis C burden lies in Pakistan, with 7.1 million people living with the disease. According to a recent WHO report, 90% of cases are not diagnosed and less than 160,000 people were treated in 2016. National efforts towards eliminating the virus have been minimal with the bulk of efforts being carried out by NGOs on the ground.

Recognising the pivotal role healthcare practitioners’ play in raising awareness of the disease and scaling-up diagnosis and treatment, Dr Saeed Hamid, Ibne Sina Professor and Chairman of Department of Medicine at The Aga Khan University, Karachi, Pakistan, embarked on a series of activities to engage them in the fight against viral hepatitis.

Dr Hamid has used his role as a medical professional to interact with the community and healthcare workers. One of the key projects he is currently working on is The Echo Community Project titled “Extension of Hepatitis C Screening, Diagnosis and Treatment into the Community: A Low Cost, One Window, Test-and-Treat Model for Pakistan.” This is supported by confirming diagnosis using GenExpert for hepatitis C and linking viremic patients to care.

Initially, general practitioners were hesitant about treating people living with hepatitis C having experienced low uptake and success rates with interferon treatments. Once educated on the advancements of the DAA treatment and the positive patient outcomes, they became confident and willing to treat patients through the programme. To date, more than 3811 people have been diagnosed and 54 treated.

Working with communities to increase capacity

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“I think there has been a consistent effort to raise awareness and that is now being evidenced. Many people are now aware and are very engaged in the effort. National stats are not just known, they have seen friends and relatives die of this disease.”
One of the key components still lacking in Pakistan is a network of active patient-led advocacy and support groups. This is because there is still a large amount of stigma attached to the disease, with those affected being too afraid to speak out or even seek help.

To bridge this gap Dr Hamid created a forum within The Society of Gastroenterology (of which he is vice president) called Hepaid with the aim of bringing together and providing a platform for NGOs in Pakistan working within the field to share resources and knowledge, where previously they had been working independently with no communication between groups. Thanks to his interventions, and that of other organisations running awareness campaigns and screening programmes on the ground, the landscape is beginning to shift. Those who have had a positive experience with the new treatments are now more willing to come out and speak about it and the impact it has had on their lives. As a result, awareness of the disease among the general population is beginning to rise.

We need to bring on board all healthcare practitioners, especially family physicians, nurses and midwives in rural areas to raise awareness, educate and reach marginalised populations. Dr Hamid is planning on working with a group of “lady health workers”. Initially focusing on obstetrics and gynaecology, they can be taught to widen their remit to include provision of the hepatitis B birth dose vaccine, raise awareness of viral hepatitis within their communities and survey local populations.

Supporting medical professionals at all levels to understand the roles they can play in combating viral hepatitis is a key principle of being a NOhep Medical Visionary. The work Dr Hamid is doing in Pakistan to educate healthcare practitioners' in rural areas demonstrates the vital role medical professionals can play in helping us reach our goal of elimination.
PRINCIPLE 5

YOU ARE AN AMBASSADOR FOR ALL EFFORTS TO ELIMINATE VIRAL HEPATITIS, PROMOTING ACTION AND ADVOCATING CHANGE THAT WILL HELP ACHIEVE AMBITIOUS GOALS

YOU TRANSLATE GLOBAL GOALS INTO RELEVANT LOCAL ACTIONS, ENGAGE AUDIENCES WITHIN AND OUTSIDE OF THE MEDICAL COMMUNITY, AND CHAMPION HEPATITIS ELIMINATION IN YOUR LOCAL COMMUNITY AND NETWORKS, IN ALL THAT YOU DO

WHY?
Elimination of viral hepatitis is a global goal that will deliver benefits on many levels but can only be achieved through local and relevant actions. Sharing the message and encouraging participation across local communities and networks is essential to ensure everyone works together as part of a wider movement to end the public health threat of viral hepatitis.

WHAT?
Achieving WHO’s 2030 targets requires the cumulative efforts of individuals and groups. Every opportunity must be taken to ensure this message reaches a wide audience, utilising a wide variety of channels including direct conversation, local, national or international meetings, social media, press coverage opportunities and more.

Local actions must be realistic and achievable based on available resources. Everyone should be encouraged to share ideas and promote actions, seeking ways to involve all members of the community. Identifying a priority based on local needs (e.g., improving needle exchange services in areas with a high population of PWID) and focusing efforts in this one area is a good way to generate strong initial results and build momentum towards tackling more areas. Championing local successes (e.g., the Eastern Mediterranean Region has the highest proportion of hepatitis C patients started on treatment) is important to drive motivation.

HOW?
Three quick steps to get started
1. Send the monthly NOhep newsletter to your local practice and network and encourage them to sign up at www.NOhep.org
2. Invite local press to visit your practice to hear about the NOhep movement and any new initiatives you have launched. Consider asking selected patients if they would be willing to be involved – patient stories are a good media sell-in
3. Set up a local NOhep Facebook group – open to everyone both within and outside of the healthcare practice – to create a local community and a forum to share ideas, updates and activities towards the elimination of viral hepatitis

OTHER RESOURCES TO HELP
- Present, using a ready-made presentation, the core NOhep and viral hepatitis ‘elimination story’, key messages and data at local meetings or events
PRINCIPLE 5  CASE STUDY
MANAL EL-SAYED: PROFESSOR OF PAEDIATRICS
AT THE AIN SHAMS UNIVERSITY, CAIRO, EGYPT

Manal El-Sayed, MD, is Professor of Pediatrics at Ain Shams University, Cairo, Egypt. She is an active member of the Egyptian National Committee for Control of Viral Hepatitis, and since 2006 has been charged with a programme for prevention and management of viral hepatitis. She contributed to development of the national strategy for control of viral hepatitis and programmatic treatment of more than hundreds of thousands of patients with hepatitis C. Since 2011 Professor El-Sayed has been appointed as Vice Chair of the WHO’s Technical Advisory Group for Prevention and Control of Viral Hepatitis in Egypt 2012 through 2018 and by the Minister of Health as the supervisor (oversight) of the Egyptian national programme for control of viral hepatitis at Ministry of Health.

Raising awareness within the healthcare community and the general public

Viral hepatitis is one of Egypt’s most significant public health challenges, with an estimated 8-10 million persons, or 10% of the population, living with the disease and millions more at risk for infection.13 A NOhep Visionary, Prof. Manal El-Sayed has been working in the field of viral hepatitis since 1990. As a professor of paediatrics she has worked in paediatric hematology and oncology teams developing a programme for the management of liver disease in children and adolescents with hematological disorders. She is a founding member of the Egyptian National Committee for Control of Viral Hepatitis (NCCVH), charged with planning and implementing the nationwide programme for prevention and management of viral hepatitis. As part of the NCCVH she was assigned to develop a system of liver centres all over Egypt with trained physicians and nurses. These centres were then connected to each other through a database of networking system for patients. Over seven years they treated over 350,000 patients with PEGylated interferon and ribavirin until 2014 when Direct Acting Antivirals became available. She was part of the team negotiating prices of new DAAs resulting in massive scale up of treatment.

Prof. El-Sayed has been a strong advocate for change in her country and internationally. She has used her voice to fight for viral hepatitis to be recognised as a public health threat that affects the lives of millions of people, alongside the burden of the disease on the public health system through increasing the number of liver transplants due to cirrhosis of the liver or liver cancer.

Through her role as a medical professional, she has undertaken a series of educational activities to increase diagnosis and link people to new cures for hepatitis C and treatment and vaccination for hepatitis B.

One of the most successful campaigns initiated by Prof. El-Sayed included going directly into universities and delivering lectures to students. Through this programme, El-Sayed and her team managed to vaccinate 30,000 medical students against hepatitis B.

“Everything is possible. Egypt is a country with the highest prevalence of hepatitis C in the world, with 100M people living here and very limited resources. We were a committee of volunteers who had absolutely nothing. We started something out of nothing. If you are passionate you can achieve anything.”
A most recent similar campaign reached thousands of university students and employees and screened them for hepatitis C and linked positive cases to care. Alongside her efforts to raise awareness amongst key populations, she used mass media to raise wider awareness. Recognising that every family in the country has been affected by this disease in some way, she used media as a key strategy to increase education. Dr El-Sayed strongly believes in empowering the public and giving them the tools needed to demand access to life saving diagnosis and treatments as a key tool in the elimination of viral hepatitis. Communication and education played a crucial role in ensuring community empowerment. Engagement and involvement of multiple stakeholders including the media, civil society and public early in the programme increased demand for access to affordable treatment and prevention strategies. Critical messages on their right to protect themselves and their families as well as to demand behavioral changes and early access to care increased political and government advocacy. Discussions of public needs resulted in removal of stigma associated with hepatitis C infection. Public participation and engagements increased awareness significantly over the past few years and currently the majority have learned about hepatitis, modes of transmission, access points for testing and treatment. The impact of screening programmes within healthcare systems combined with the use of the media to educate the wider public means that to date they have treated an estimated 1.5 million people. Raising awareness of the burden of viral hepatitis, as well as the impact of diagnosis and treatment, is a key principle of being a NOhep Medical Visionary. Dr Manal El-Sayed is an exemplar of what can be achieved through raising awareness and education for viral hepatitis.
5. APPENDIX
USEFUL LINKS

DATA SOURCES
World Health Organization’s hepatitis page: www.who.int/hepatitis/en/
The Lancet Global Burden of Disease page: www.thelancet.com/gbd
Polaris Observatory - The authoritative resource for epidemiological data, modelling tools, training, and decision analytics to support global elimination of hepatitis B and C by 2030: www.cdafound.org/polaris/
US Centers for Disease Control and Prevention’s hepatitis page: www.cdc.gov/hepatitis/index.htm
European Centre for Disease Prevention and Control: ecdc.europa.eu/en/home

REPORTS
World Health Organization’s Fact sheet on Hepatitis C: www.who.int/en/news-room/fact-sheets/detail/hepatitis-c
World Health Organization’s Fact sheet on Hepatitis B: www.who.int/en/news-room/fact-sheets/detail/hepatitis-b
World Health Organization’s Global health sector strategy on viral hepatitis 2016-2021: www.who.int/hepatitis/strategy2016-2021

PATIENT STORIES
Also available on World Hepatitis Alliance’s wall of stories www.worldhepatitisalliance.org/wall-stories
Su’s story: youtu.be/vajBS3lI5W8
George’s story: youtu.be/S3_ry4oz3OQ
Ivana’s story: youtu.be/4EFbOpWY_1Y
Ammal’s story: youtu.be/GDcSjmhx3m4
Dee’s story: youtu.be/x3vZzlwEaa8
Kenneth’s story: www.facebook.com/NOhepmovement/videos/845609178968168/
NOhep Documentary: youtu.be/dUtupHy2i88
Intro to NOhep: youtu.be/OerCwnKZU

NOhep RESOURCES
Background Factsheet - The NOhep Visionary Programme: www.NOhep.org/wp-content/uploads/2017/12/NOhep-Visionaries-Backgrounder_FINAL.pdf
NOhep infographics: www.NOhep.org/resources?type=7
NOhep Videos: www.youtube.com/channel/UCCMkGCI56xEeqCmQTH-WgmkA?view_as=subscriber

HEPATITIS SUPPORT SITES:
Hepatitis B Foundation: www.hepb.org
Hepatitis Delta: www.hepb.org/research-and-programs/hepdeltaconnect/
Liver Cancer Connect: www.hepb.org/research-and-programs/liver/
USEFUL LINKS

ENDNOTES

CONTACT DETAILS
For more information, please contact:
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Find out more information about NOhep here:
www.NOhep.org/about
Find out more about NOhep Visionaries here:
www.NOhep.org/visionaries