

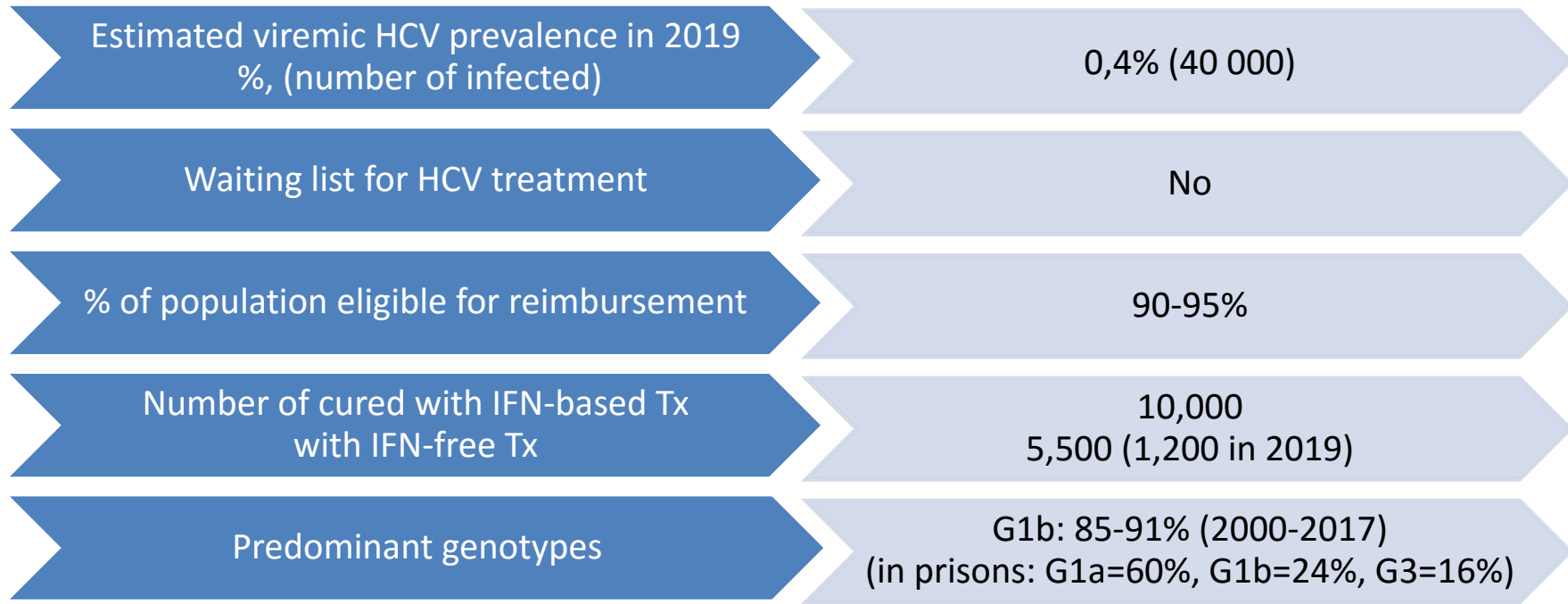
**The Hungarian Hepatitis Committee.
National program for chronic viral hepatitis
elimination.**

Bela Hunyady, Gabor Horvath

HBV quick facts, Hungary

Estimated HBV prevalence in 2019 %, (number of infected)	0,2% (20 000)
Diagnosed with HBV by 2015	7,500
Waiting list for HBV treatment	No
% of population eligible for reimbursement	99%
Number treated for HBV in 2015	NA = 651, pegIFN = 158, pegIFN+NA = 213
Predominant HBV genotypes	A: 51%, D: 46% (not routinely analyzed)
Immunization program	13 yrs old, born after 1986 Newborns of HBV infected mothers, HCW

HCV quick facts, Hungary



Prescriptions (2018)	GLE/PIB	SOF/LDV	SOF/VEL	SOF/VEL/VOX	GZR/EBR	OBV/PTV+DSV
	N/A	30%	2%	N/A	15%	53%

National Hepatitis Committee

- Established by Minister of Human Capacities in 2018
- Members: experts on the field of hepatology
- Mission:
 - Advise (health)politicians on how to achieve WHO 2030 global elimination goal
 - Form a national chronic viral hepatitis elimination program
 - Negotiations with (health)politicians and other stakeholders
 - Represent Hungary on WHO, EU, EC and other viral hepatitis summits

Members of National Hepatitis Committee

- Prof Dr Zsuzsa Schaff, chair, member of Hungarian Academy of Sciences
- Prof Dr Béla Hunyady, co-chair, full professor
- Dr Judit Gervain, associate professor
- Dr Árpád Gógl, previous health minister
- Dr Gábor Horváth, senior gastroenterology specialist
- Dr Mihály Makara, senior tropical medicine specialist
- Prof Dr Ferenc Szalay, professor emeritus
- Dr István Tornai, associate professor
- Dr Klára Werling, associate professor

Issues solved in viral hepatitis elimination (95% screening+linkage to care)

- Blood donors (mandatory)
- Haemodialysed (mandatory)
- Haemophiliacs (recommended, routine)
- Co-infected with HBV, HIV (recommended, routine)
- Organ transplanted (recommended, routine)
- Mandatory HBV screening/vaccination for HCWs from 1998
- Sufficient budget for mandatory HBV vaccination of qualifying persons
 - Adolescents at age 13 from 1999, or at birth if mother HBV infected
 - HCWs
- Sufficient budget for HBV and HCV therapy
- National guidelines for screening, diagnosis, treatment, follow up
- Reliable HCV treatment registry

To be completed in 2020 (screening+linkage to care)

- HCV screening and therapy for HCWs
 - Mandatory screening by June 2020 (already started)
 - Automatic reimbursed therapy
- Development of screening registry for HCWs is under the way

Elements of planned national chronic viral hepatitis elimination program in Hungary

- Prevention
- Screening
- Linkage to care
- Access to reimbursed therapy for all infected person (IFN-free for HCV)
- Logistic and IT developments (screening-registry)
- Sustainability (harm-reduction programs, regular tests for high risk populations)
- Compliance with human rights and data protection (GDPR)
- Harmonization with societal needs and interests

Prevention

- Awareness/education
 - population, decision-makers, health care professionals, etc,
- Safe healthcare
 - safe procedures/blood products, strict regulations, audits
- Safe non-medical procedures
 - Strict regulations and audits is tattoo, acupuncture, piercing saloons, etc.
- Safe sex
 - Promotion of condom-use
 - Strict regulations and audits, regular screenings amongst sex-workers
- Prevention of individuals at risk
 - Prevention/management of adverse childhood experiences (ACE)
 - Prevention of iv. drug use
 - Extension of harm-reduction programs and social services
- Extension and follow up of HBV immunization
 - Non-medical staff in health-care system, armed forces, sex-workers, MSM
 - Non-vaccinated pregnant women
 - Anti-HBs follow up for vaccinated individuals with high risk

Estimated numbers to be screened and treated to achieve WHO goal in Hungary

	Est. viremic prevalence per 10M	Est. viremic incidence per 100 000	To be treated per year for WHO goal	To be screened per year for WHO goal
HBV	20,000	0,4	???	???
HCV	40,000	15-20???	3-4,000	400-500,000 40-50,000*

*If screening/treatment includes PWID and/or MSM population outside prison

Must be screened populations

- Persons with elevated liver enzymes
 - Reflex HBV/HCV serology?
- STD clinics attendees
 - Risk-assessment based screening or reflex HBV/HCV serology
- Biological-, immunosuppressive-, chemotherapy recipients
- PWID
- MSM
- Incarcerated persons
- Persons under criminal supervision
- Non-medical staff in healthcare facilities

Screening and therapy of HCV in prisons (2007-2016)

- Screened: 25,384
- Anti-HCV positive: 1,669 (6.6%)
- HCV PCR positive: 967 (58%)
- Started therapy (IFN): 643 (64%)
- SVR: 425 (66%)

Screening for HCV in prisons (2018)

Location	Number (N)	Anti-HCV+	HCV PCR+	GT 1/a	GT 1/b	GT 3
Vác	435	54	39	20	7	5
Solt	142	22	12	5	3	3
Állampuszta	264	16	11	4	2	3
Vác	110	13	5	4	0	0
Szombathely	117	8	6	2	3	1
Tököl	360	34	25	14	4	4
Márianosztra	359	53	35	20	9	2
Sándorháza	240	45	33	13	8	7
Balassagy.	143	13	14	8	2	0
Eger	100	12	12	5	1	1
Győr	202	2	1	1	0	0
SUM, n (%)	2,472	272 (11%)	192 (7.75%)	96 (60%)	39 (24%)	26 (16%)

Easy to find populations recommended for screening

- Ministry of Defence (armed forces)
 - At admission to army
 - High school/college students
- Ministry of Interior
 - Police
 - Catastrophe services
 - Anti-terror units
 - Correction facilities
 - Screening program by civil organizations, industry support
 - High school/college students
- Pregnant women
 - Screened currently only for HBV

Further recommendations for screening

- Risk-assessment based HBV and HCV screening at various providers
 - GPs
 - Occupational medicine
 - Emergency units
 - Dental facilities
 - Etc.
- Individuals to be identified
 - Blood product recipients, persons with major surgery before 1993
 - Children of infected mothers
 - Sexual partners of infected persons
 - Persons after acupuncture, tattoo, piercing
 - Immigrants from high prevalence countries

Risk assessment questionnaire

QUESTION	YES	NO	DON'T KNOW
Diagnosed with hepatitis B or hepatitis C	10	0	1
Received blood transfusion (i.e. at delivery)/blood products/organ transplantation before 1993	2	0	1
Intravenous or intranasal drug abuse ever	2	0	1
Current or previous long term healthcare worker	2	0	0
Prolonged or repeated hospitalisations, or major surgery	1	0	0
Refused from blood donation ever	2	0	1
Haemodialysis ever	2	0	1
Liver enzyme (ALT/GPT) elevation repeatedly	2	0	1
Born in a country with high prevalence of viral hepatitis B or hepatitis C	2	0	1
Born before 1970	1	0	0
Mother has/had hepatitis B or hepatitis C	2	0	1
Mother has/had got liver disease of unknown aetiology	1	0	0
Sexual partner is infected with hepatitis B or hepatitis C?	1	0	0
Vaccinated against hepatitis B	0	1	1
Donated blood/plasma or tested negative for hepatitis B <u>and</u> hepatitis C (both!) within the last 10 years	-5	0	-1

PWID populaion

- Main reservoir
 - Estimated size: 40.000 person
 - Prevalence: 50-60%
 - Many are seen in correction facilities
 - GT1a and GT3 are the dominant genotypes
 - ***WHO goal can not be achieved without success in this population***
- Political will and support are mandatory
 - Iv. drug use is linked to adverse childhood experiences (ACE)
 - Prevention, screening and treatment should be societal responsibility
 - De-criminalization, new regulations, universal healthcare coverage, extension of low-threshold services are mandatory

PWID population: stakeholders

Government

- Parliament
- Ministry of Finance
- Ministry of Interior
- Ministry of Human Capacities
 - Secretary of Health
 - National Institute of Environmental Health
 - Hungarian National Drug Focal Point
 - Secretary of Social Affairs

Medical Societies

- Society of Addictology
- Federation of the Hungarian Drugtherapeutic Institutes
- Society of Gastroenterology/hepatology
- Society of Infectology and Clinical Microbiology

Civil Organizations, NGOs

- Foundations (INDIT, MBA, etc)

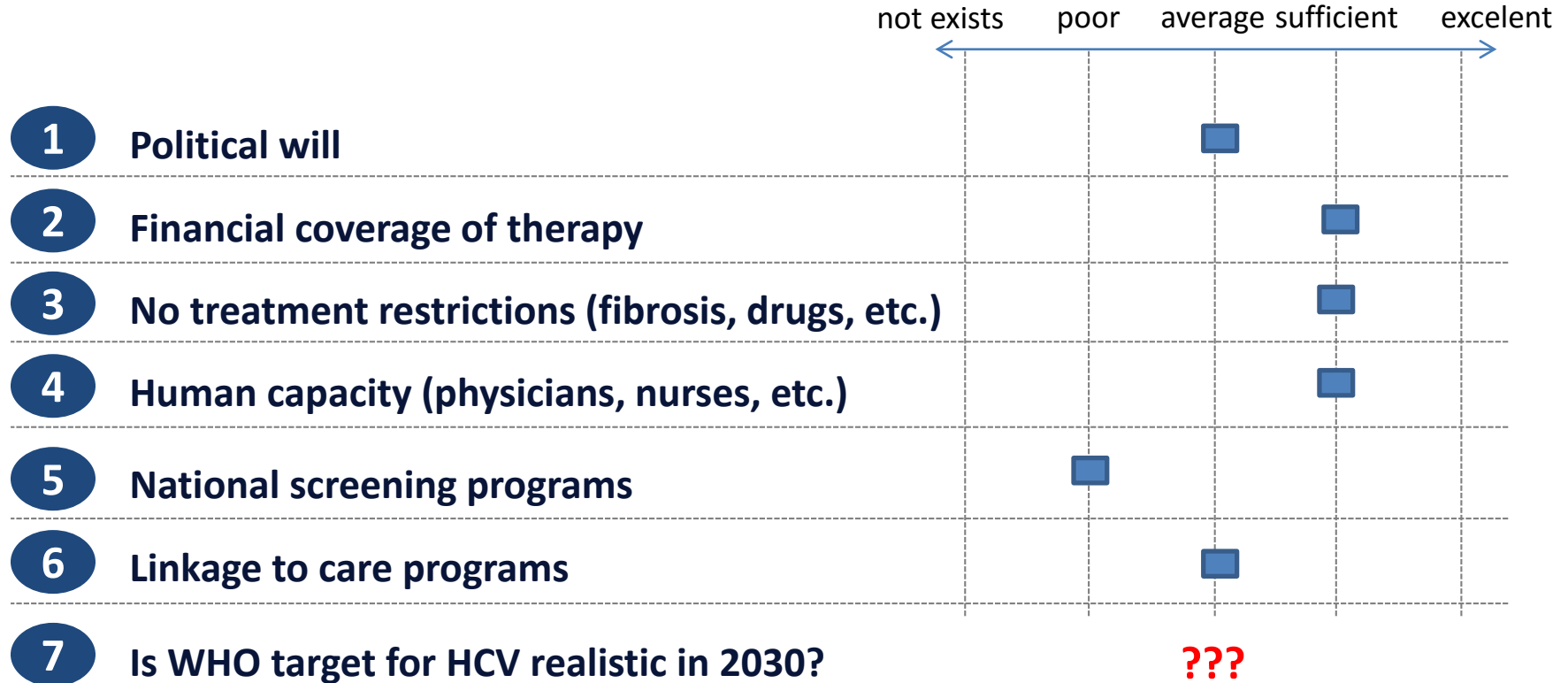
Initiatives in PWID population so far

- Round-table for stake-holders
- Contact with authorities
 - Ministry of Human Capacities, Ministry of Interior
- Ongoing screening and therapeutic programs
 - Organized by civil and health-professionals' organizations

Elements of planned PWID program in Hungary

- Identification of „musts” (regulatory, organizational, logistic, IT, etc.)
- Recommendations on changes of laws and legislations
- Recommendations on drug-prevention and HCV prevention programs
 - ACE prevention services
 - Extension of low-threshold services (needle exchange programs, etc.)
 - Diversion to high-threshold services, OST programs
- On site screening, diagnosis, and therapy for HCV
 - Voluntary at low-threshold facilities (with compensation) and correction units
 - Automatic/opt out at addiction clinics and rehabilitation units
 - Client-management: social workers, peers, NGOs,
 - Simplification (if regular guideline can not be followed)
 - Serology quick test, rapid PCR (potentially dry blood spot PCR)
 - GT, routine lab tests, fibrosis tests might be skipped
 - Mobile screening/diagnostic and therapeutic units

How close is Hungary to chronic viral hepatitis elimination?



**UNTIL NATIONAL ELIMINATION PROGRAM WAS FULLY OPERATIONAL,
MICROELIMINATION PROGRAMS TO BE CONTINUED!**