Gesundheit Österreich GmbH

Interventions to increase linkage to care and adherence to treatment for hepatitis C among people who inject drugs

A systematic review and practical considerations from an expert panel consultation

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Background & Aim

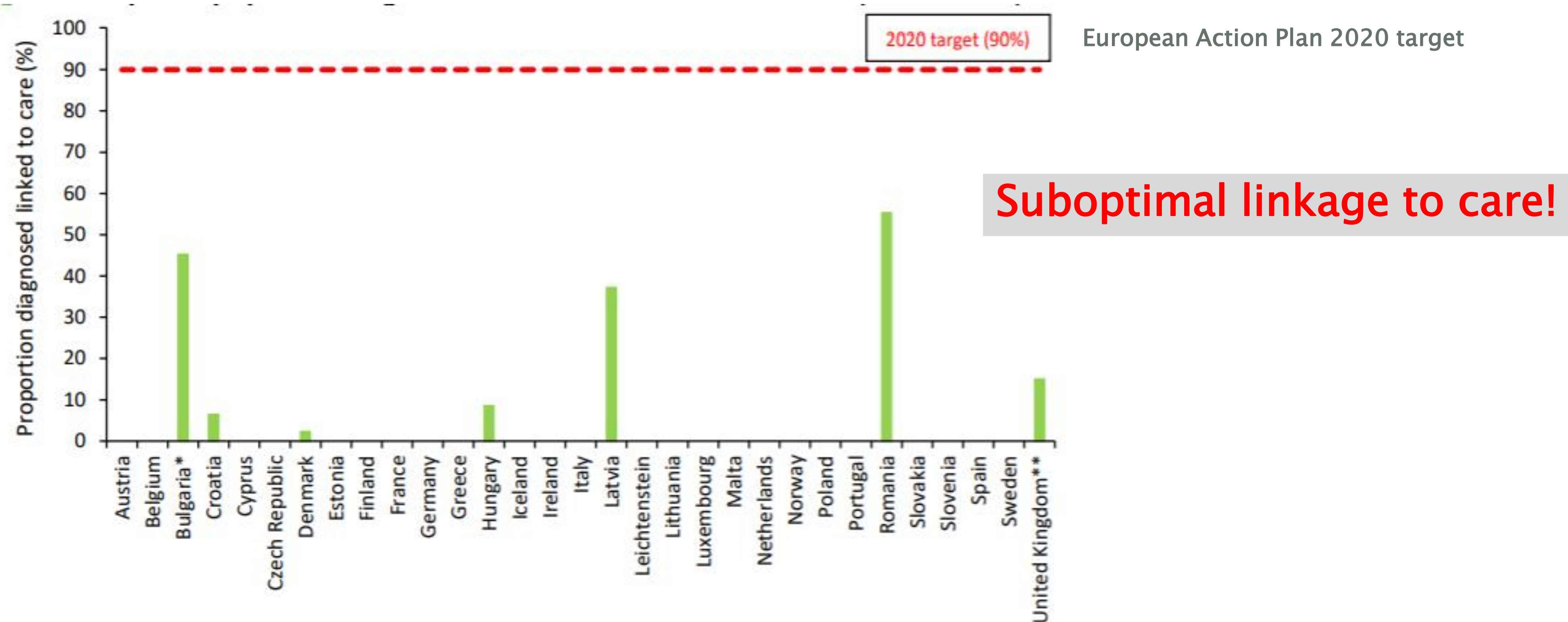
- In EU/EEA, persons who inject drugs are at high risk for HCV:
  - injecting drugs use: 49% of acute and 61% of chronic HCV infections reported in 2018 (ECDC, 2020)
  - HCV prevalence among PWID: 15% – 86% in nationally representative samples 2018–2019 (EMCDDA, 2021)
  - PWID priority population for HCV testing, linkage to care and treatment (ECDC testing guidance 2019)
- The ECDC & EMCDDA guidance on prevention of infections among PWID (2011) is currently being updated
- Systematic review commissioned by ECDC to GOEG, Austria, that:

aims to support the guidance update process by identifying interventions that can improve hepatitis C linkage to care and adherence to DAA treatment among PWID

Part of a larger review on hepatitis B and C, HIV, and tuberculosis

HCV continuum of care, EU/EEA 2017 data

Proportion (%) of people diagnosed with HCV who are linked to care

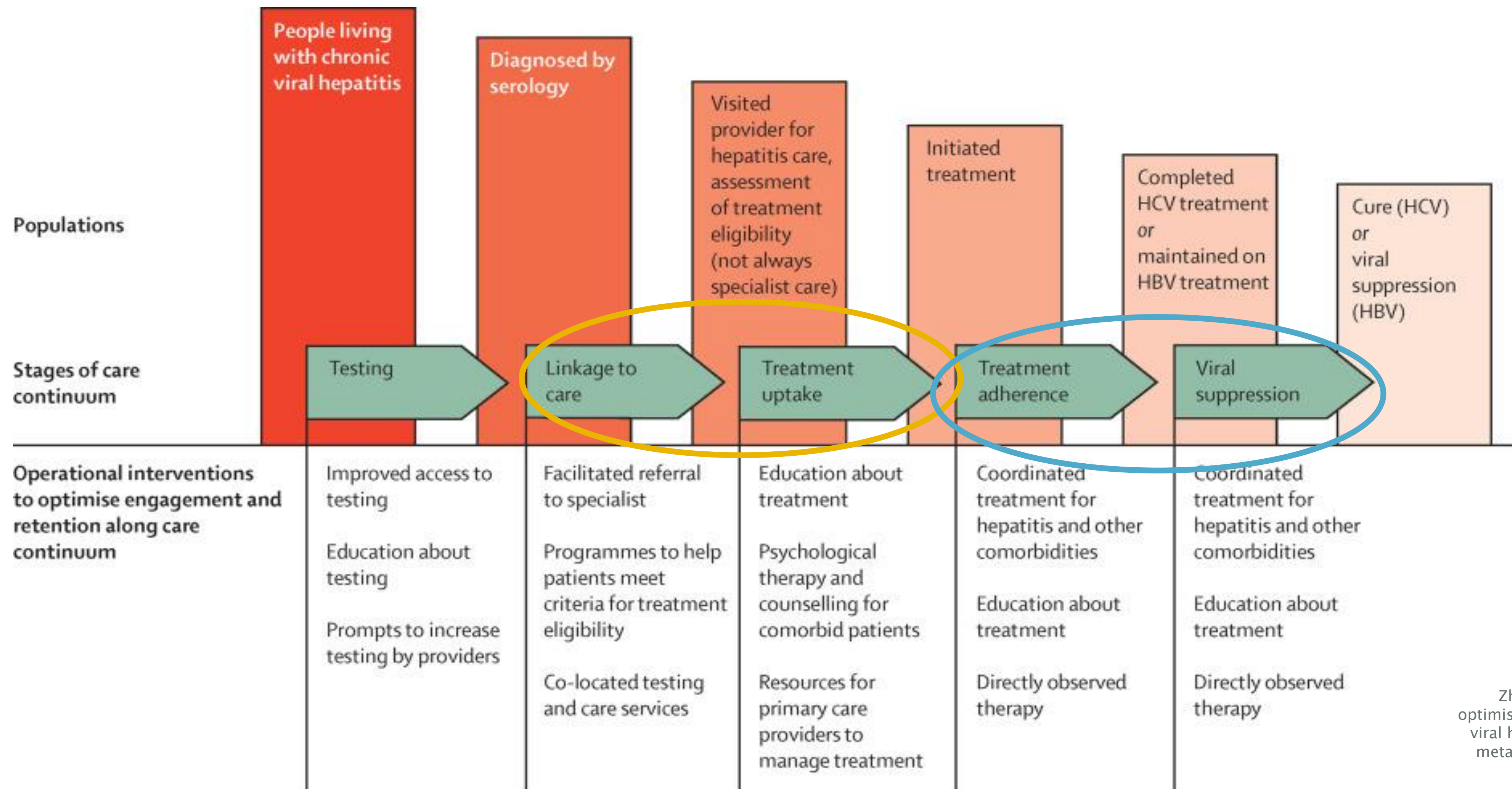


European Action Plan 2020 target

Suboptimal linkage to care!

Source: ECDC. Monitoring the responses to hepatitis B and C epidemics in EU/EEA Member States, 2019.
https://www.ecdc.europa.eu/sites/default/files/documents/hepatitis-B-C-monitoring-responses-hepatitis-B-C-epidemics-EU-EEA-Member-States-2019_0.pdf

HCV cascade of care



Zhou et al. (2016). Interventions to optimise the care continuum for chronic viral hepatitis: a systematic review and meta-analyses. *The Lancet. Infectious diseases*, *16*(12), 1409-1422. https://doi.org/10.1016/S1473-3099(16)30208-0

Methods: PICO

Population	PWID or ≥50% of study sample composed of people who ever injected drugs *or* people receiving OST; with chronic HCV infection
Intervention	Intervention(s) aimed at improving engagement at one/both of following stages of HCV care cascade: a) linkage to care – defined as clinical assessment of HCV infection/liver disease b) adherence to treatment (regimens combining interferon/DAA or DAA only)
Comparator	RCTs: Participants **receiving care as usual or routine care** as defined by study authors; Non-randomised studies: before and after intervention comparison
Outcomes	a) For linkage to care: • % study population that came in contact with a care provider i.e., **"visit"** and/or, • % study population initiating HCV treatment i.e., **"treatment initiation"** as defined by the study authors b) For adherence to treatment: • % study population **adherent** to HCV treatment and/or **completing** HCV treatment • **SVR12 or SVR24**

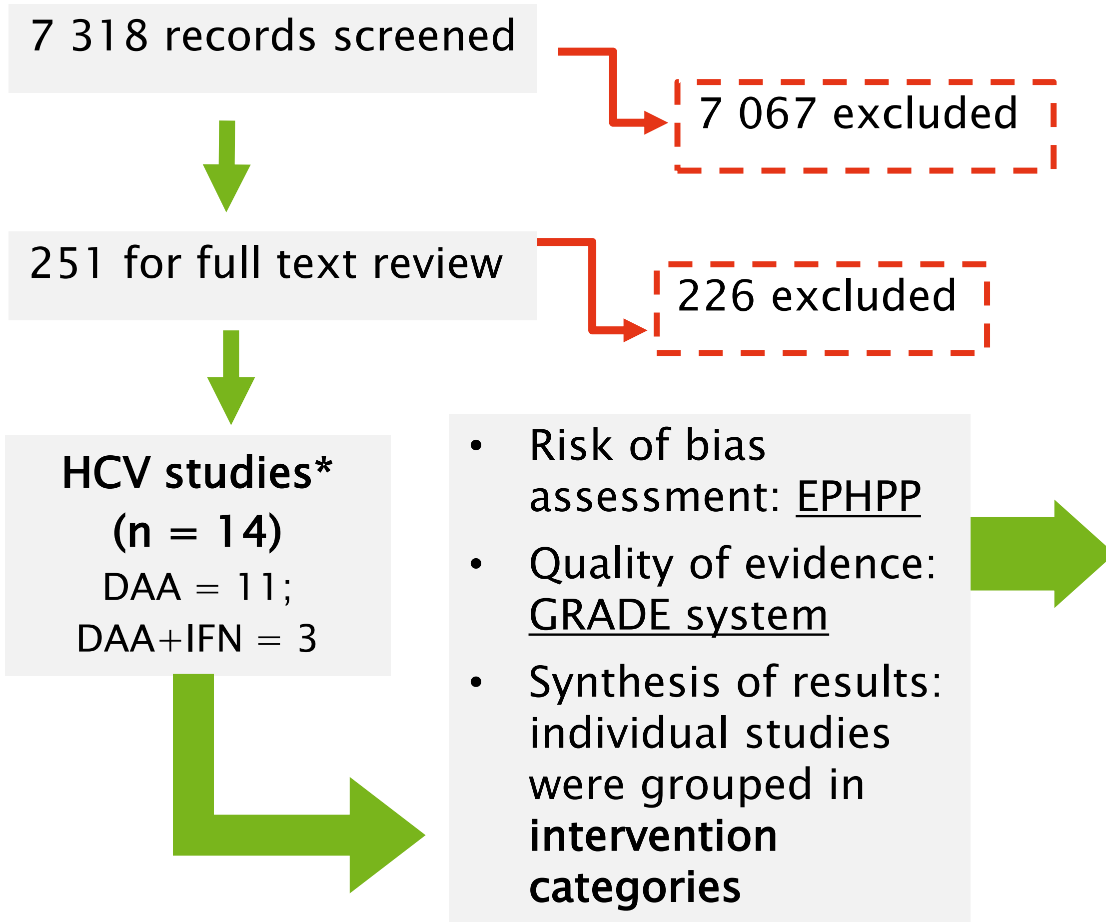
Source: PROSPERO https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=191116

Methods

- **Databases**
  - PubMed, EMBASE, PsycINFO, Clinical Trials Registry, CDSR
- **Time period**
  - from 01/01/2011 to 08/07/2020
- **Geographical considerations**
  - EU/EEA/EFTA countries, EU candidate countries, the UK, US, Canada, Australia and New Zeeland
- **Exclusion** of
  - non-peer-reviewed scientific articles or conference abstracts, study protocols, review articles including systematic reviews and non-comparative studies

Source: PROSPERO https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=191116

Results



Expert Panel

Before the meeting:

- Evidence to Decision tables were developed and submitted to the experts
- Summary of Expert's feedback and comments on recommendation

2-days virtual meeting (3-4 hours discussion each day)

During the meeting, the Expert Panel members

- examined the evidence gathered during this review and the identified gaps
- discussed the evidence tables and the draft recommendations (including practice considerations);
- commented and formulated expert opinions, suggested revisions/edits; and
- gave direction for final recommendations

*six HCV studies reporting interventions in interferon only era were excluded

Results

	Contingency management	Telemedicine	Peer interventions	Directedly observed therapy (DOT)
Settings	• NSPs, other service providers for PWID	• Limited/remote access to healthcare • Prisons • Drug treatment centres	• Closed informal social networks • High stigma	• Close to daily lives of PWID, e.g. pharmacy, NSP, OST, DCR, emergency centres; prisons
PWID sub-populations (where specified)	• Vulnerable groups (incentives may reduce barriers)	• Marginalised PWID	• Hidden and hard to reach PWID (e.g. foreigners, migrants, illiterates)	
Practice consideration	• In addition to peer-lead interventions, harm-reduction, OST, NSP education, community campaigns • **Consider legal framework** • **Avoid inequalities**	• More effective for adherence to treatment (SVR) than linkage to care • Can be challenged by lack of equipment • **COVID-19 context!**	• **Training of peers as pre-condition** • Raise awareness on peer work • Consider legal framework	• Enable link to specialised HCV care • Consider healthcare system characteristics and legal requirements • DOT should not be a condition to receive DAA • Linking DOT with OST can be a major success factor

NSP: Needle and Syringe Programmes; OST: Opioid Substitution Treatment; DCR: Drug Consumption Rooms; DAA Direct-Acting Antivirals; SVR: Sustained Virological Response

Outcomes indicators for *linkage to care* – visit, treatment initiation and *adherence to treatment* – treatment adherence, treatment completion, SRV12
Comparator – usual care (for most, hospital)

Results

	Opioid substitution treatment	Primary care	Integrated services and case management
Practice consideration	• OST not directly impacted treatment completion, SVR12 or safety – OST should therefore not be a barrier/prerequisite to treatment access. • Integration OST & HCV treatment beneficial; **OST provides a fixed setting, regular meeting point during therapy.** • High benefits for PWID with underlying psychiatric comorbidities.	Familiar environment, easy to access, however, consider organisation of healthcare system e.g. • GP offer DAA &OST? • GPs trained and allowed to prescribe DAA? • GP perform first pre-treatment visit and handle complex patients (comorbidities)?	Integrated care approach combining: • addiction, • infectious diseases, • mental health therapy, **could increase accessibility and facilitate treatment success** by covering various needs of PWID population. High benefits for PWID with underlying comorbidities. • Between: harm reduction services, mobile units and HCV care providers, • Preferably located in same geographic area, • Should **reduce barriers by actively accompanying clients in the referral to other services.** • Cooperation between drug addiction services and institutions providing treatment

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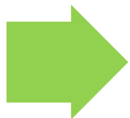
Conclusions

- Linkage to care of people diagnosed with HCV is pivotal for progressing the elimination efforts.
- Highly effective DAA regimens are a key facilitator for patient populations historically defined difficult to cure or even excluded from HCV treatment
- Critical success factors for interventions:
  - Implemented in **settings** close to target population (e.g., harm reduction services, OST)
  - Adequate **funding** and **coverage**
  - **Testing** and **treatment free** of costs for PWID
  - Recent drug use should not be an exclusion criteria for DAA treatment
  - Interventions tailored to and integrated in existing national strategies



To improve the HCV cascade of care among PWID, interventions should be implemented in combination with harm reduction services, drug treatment and considering the healthcare system characteristics and legal framework.

Acknowledgements and further information

Special thanks to Otilia Mårdh (ECDC), Ilonka Horváth (GOEG) and the Expert Panel members for providing valuable input and for sharing their expertise.

Relevant publications:

» Schwarz, T., Horváth, I., Fenz, L., Schmutterer, I., Rosian, I., Mårdh, O. Interventions to increase linkage to care and adherence to treatment for hepatitis C among people who inject drugs: a systematic review and practical considerations from an expert panel consultation [Manuscript submitted for publication]

» European Centre for Disease Prevention and Control. (2021). *Interventions to increase linkage to care and adherence to treatment for hepatitis B and C, HIV and tuberculosis among people who inject drugs – a systematic review.* Stockholm: ECDC (in press).

» European Centre for Disease Prevention and Control. (2021). *Models of good practice for community-based testing, linkage to care and adherence to treatment for hepatitis B and C, HIV and tuberculosis and for health promotion interventions to prevent infections among people who inject drugs.* Stockholm: ECDC (in press).

➡ updated PWID guidance to be published in early 2022

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