Concluding remarks and responses to questions

The participants considered the question of whether there is enough scientific evidence to include treatment as prevention in guidelines for the prevention of transmission of HCV in all risk groups(PWID, MSM, prisoners and migrants) or only some groups.

Modelling studies indicate that treatment as prevention should lead to decreased transmission of HCV and reductions in the number of deaths in particular risk groups. A recent global modelling study calculated that the most benefit would derive from targeting PWID globally, although the number of infections averted would vary with geographical location and factors such as population growth and the size and distribution of risk groups in countries or regions.

Real-life data from Australia, Iceland, and Tayside in Scotland showed that achieving high coverage of treatment of PWID with HCV could decrease the incidence of primary HCV infections but also re-infections, and lower the number of viraemic patients, dramatically in some instances. Similarly, real-life data from Switzerland and the Netherlands showed that free access to HCV treatment substantially decreased the incidence of new HCV cases in MSM. Although modelling studies forecast that treating all infected people in prisons would be cost-effective, no real-life studies have yet shown convincing evidence. Furthermore real life data in some risk groups (haemophiliacs, HIV/HCV co-infected, Haemodialysis) look promising currently no MSM project attained the WHO elimination goals of reducing HCV incidence by 90%. Moreover recent Dutch data showed, despite persistent treating of all acute HCV case a plateau in the incidence, without reaching the90%.

Several gaps and weaknesses were identified. With regard to data, many modelling and real-life studies focused on populations in western Europe, leaving populations with or at risk of HCV infection in many low- and middle-income countries largely uninvestigated. Migrants have not been studied even though HCV seroprevalence in them has been shown to be higher compared to general population – imported infections are a touchy social and political area. Unsafe medical practices have not been studied well. In some low- and middle-income countries focusing on safe medical injections could generate greater benefits. Although impact of unsafe behaviour is studied quite well nevertheless still huge hepatitis C outbreak occurs like in Egypt and Pakistan showing that upscaling of combined opioid substitution treatment (OST) and needle and syringe programmes with or without treatment may be the most effective harm reduction. In some countries PWID in particular as well as MSM with HCV infection cannot access care services or be reached - worse, they may be subject to stigmatization, violence and even death; treatment as prevention is simply not feasible. Guidance on treating those at risk in these situations is lacking.

Availability and accessibility of DAAs varies from country to country and with region. Their initial licensing was based on treatment of chronic HCV infection, but population-level preventive effect of hepatitis C treatment programmes would require also treatment of recent HCV infections (earlier referred as acute hepatitis C), often re-infections, which are quite common in risk groups as PWID and MSM. Most recent EASL guidelines on treatment of hepatitis C recommend offering DAA-based treatment to all treatment-naïve and treatment-experienced patients with recently acquired or chronic HCV infection.[i]

Implementation of the policy of testing all people at risk for HCV infection should lead to the treatment of all those who are found to be infected. The concept of treatment as prevention covers both care of the individual to prevent life-threatening events and the social benefit of prevention of further HCV transmission, as recognized in WHO's guidelines. Modelling studies and empirical data support treatment as prevention for PWID, MSM and prisoners (modelling studies) in conjunction with harm-reduction measures. Health authorities need to evaluate which risk groups it would be

most valuable to treat, especially when other interventions such as screening, linkage to care and harm-reduction are in place..

A second question asked whether treatment as prevention in risk groups should be included in national plans for eliminating HCV. WHO is planning to update its Key Populations Guidelines[1] that will take the populations-centred approach, covering both HIV and viral hepatitis prevention and response. It will also update its recommendations on HCV testing and treatment and will review the evidence in support for recommending treatment of recent HCV infections among high-risk groups.[ii][

Participants recognized the importance of the adage "know your epidemic". Countries should assess the pattern of their epidemic and the contribution and role of different risk groups. The elements of treatment as prevention would need to be defined for each national plan, which would need to cover awareness campaigns, testing, linkage-to-care and then treatment. Countries will have to estimate costs, but they will need support through further cost-effectiveness studies and information on the implementation and costs. The population-level benefits of implementing treat-all approach, in combination with other HCV prevention measures, that will result in decreasing both prevalence and incidence of HCV infection should be strongly considered while developing national HCV elimination goals. Modellers could contribute further analyses on value for money of alternative approaches such as higher target rates or maximum realizable rates to achieve. Treatment as prevention should feature in the elimination goals and thus in national plans.

[i] European Association for the Study of the Live. EASL recommendations on treatment of hepatitis C: final update of the series. [J Hepatology 2020; xx:1-49?]

[ii] WHO. Guidelines for the screening, care and treatment of persons with hepatitis C infection. Geneva: World Health Organization; 2014 (https://apps.who.int/iris/bitstream/handle/10665/111747/9789241548755_eng.pdf;jsessionid=256E3327BAA68EE34896D3F7A958FEE5?sequence=1).