1. To what extent do you believe the Scottish Government’s Sexual Health and Blood Borne Virus Updated Framework and the approach by Integration Authorities and NHS Boards is preventative?

At its initiation the Scottish Government’s HCV Action Plan for Scotland was innovative and world leading in every aspect. The framework and the preceding HCV action plan laid out comprehensive, recommendations for the organisation of HCV prevention, testing, treatment and care services. The Action Plan and Framework recommended the formation of multi-agency Managed Care Networks (MCN) and Prevention Networks to oversee and enable whole system transformational change. Prevention is an integral and vital aspect of the overall programme and its strategic aims.

The recommendations for treatment services have since evolved as the demands of treatment support have changed with the advent of interferon free treatment regimens. Currently, the configuration of treatment services is focussed on the prevention of the complications of chronic infection with HCV i.e. the complications of cirrhosis; end stage liver disease and hepatocellular carcinoma. Emerging evidence would support the view that despite several years of cost driven treatment restriction, the services are reducing the number of patients with liver failure. The number with liver cancer is slower to fall as we now know the risk of cancer is set in train earlier in the disease and so the late stage treatment, which prevents liver failure still leaves a patient with a reduced, but significant risk of hepatocellular carcinoma.

The current programme will struggle to reach its targets for the reduction of liver failure and HCC because nearly half the infected population across Scotland have not been diagnosed and so are at risk of presentation with liver failure or cancer. A short life working group, convened by the framework will report by mid-2018 with a blueprint of the diagnostic activities needed to achieve high levels of diagnosis. However, with ongoing treatment number limitations there is likely to be considerable pressure to slow this activity and inertia among staff if they do not believe that patients who are diagnosed positive can be treated.

In terms of prevention of primary infection, the framework has made recommendations around harm reduction measures, which has led to improved service provision across the field, with the focus on Injecting Equipment Provision (IEP) and Opiate Substitution Therapy (OST). These are highly effective in preventing HIV transmission and about 80% effective in reducing HCV transmission.

The Framework advocates early intervention that has been shown to reduce risk taking behaviour, as well as awareness raising, education and health improvement. However, in terms of preventing substance misuse and in particular injecting risk behaviour, which is the primary transmission route for HCV, there is a strong interdependence on there being effective prevention strategies in place and prioritised by Alcohol and Drug Partnerships (ADPs). Whilst the Framework emphasises the importance of close links with the ADPs and addiction services, there has been limited recognition of the synergies and interdependence with BBV and sexual health in the corresponding alcohol and drug strategies and this can act as a barrier to more effective joint working. There is scope for much closer collaboration, including joint commissioning with ADPs in relation to prevention that could offer greater cost effectiveness and lead to scale up of essential preventative interventions.
2. **Is the approach adequate or is more action needed?**

The Scottish Government’s stated aim is to eliminate HCV. The current approach will see a significant reduction in the numbers of patients with liver failure and HCC but will require long term, high volume treatment to maintain this because of ongoing transmission of the virus, patients who are cured are replaced with newly infected ones.

There is no imminent likelihood of a clinically useful vaccine and the only option to consider is the use of Treatment as Prevention strategies among active People Who Inject Drugs (PWID). Which have been extensively modelled and had small scale, successful pilots, but now require empirical trials, a trial of rapid micro-elimination is being conducted in Tayside, the results are promising. The Scottish Government and the framework need to be bold and capitalise on the dramatic reduction in drug costs, by maintaining the spend on HCV treatment, directing this expansion of treatment to PWIDs and allowing Scotland to eliminate HCV.

3. **Are the services and Sexual Health and Blood Borne Virus Updated Framework being measured and evaluated in terms of cost and benefit?**

Yes, the Framework has five longstanding strategic outcomes and a series of performance indicators, these have been recently reviewed by the National Monitoring and Research Group (NMARG) and are routinely presented by HPS. The creation of the national information portal allows for data to be presented at a national level as well as some comparisons to be made across Scotland. This and other data sources needs to be effectively used to learn from the best and drive consistent improvement across the country. Local MCN provide overall governance and are responsible for performance management.

The SMC undertake cost benefit analysis in relation to new drug therapies. However, as for most other aspects of healthcare, there is very limited health economic input available, making cost benefit analysis challenging for local health boards. So overall there is more cost consideration of cost-benefit analysis for the framework compared to other aspects of health care, but the power of such analyses is not available to be utilised to in form change.

4. **Given the high cost of new medicines, what cost –benefit analysis has been done of primary prevention in general, and the role of the new medicines as a means of primary prevention?**

In HCV therapy the development of national treatment guidelines that ranked drugs as being of similar efficacy, allowed National Procurement Scotland to drive the price of medications down. While the actual price for the preferred drugs in Scotland is commercially confidential it is in the order of 1/6 to 1/7 of the list price.

Health economic analysis has been conducted on the use of HCV drugs and they are cost-effective. Applying these analyses to the models of Treatment as Prevention they are cost-effective at list price and will be therefore even more effective at the real cost to the NHS. The models have used two scenarios 1) low level long term “treatment as prevention” among active PWID over 10 year horizons or 2) high volume treatment over 2-3 years. The latter is much more cost effective due to dramatically reduced re-infection and therefore re-treatment rates but has higher treatment costs in the first 2 years. Further modelling suggests that his high volume treatment rate could be achieved within the budget spent on HCV drugs in 2016-17, due to the reduced drug costs since that time.

This makes a very strong economic case for treatment as prevention in HCV.