COMMENTARY

Overview of Hepatitis C Elimination Efforts in Pakistan and the Launch of Prime Minister's Programme for the Elimination of Hepatitis C

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Hepatitis B and C are serious viral infections that can cause liver damage and death. According to the World Health Organization (WHO), there are currently 2.8 million people living with hepatitis B in Pakistan, and 9.8 million people living with hepatitis C.[1] These numbers represent a significant burden of disease for the country. The current prevalence of hepatitis B in Pakistan is 1.1%, which corresponds to one-quarter of the burden of the disease in the Eastern Mediterranean region.[1] The prevalence of hepatitis C is 7.5%, which is the highest in the world. Almost 37,000 people die each year in Pakistan due to hepatitis B and C.[2] The high prevalence of hepatitis B and C in Pakistan is a major public health concern. These infections can lead to serious health complications, including liver cancer and cirrhosis. The economic cost of hepatitis in Pakistan is also significant, due to lost productivity and healthcare expenses.

This data has been abstracted from the global HBV, HCV report 2024[3]. The data was collected in 2021 and is presented by WHO in 2024. For Pakistan, the data from this report has been extracted for the readers to understand where Pakistan stands currently on the road to hepatitis elimination i.e. what has been achieved and what is not achieved. Addressing the hepatitis B and C epidemics in Pakistan will require a multi-faceted approach. This will include increasing awareness of the diseases, improving access to diagnosis and treatment, and implementing prevention strategies such as vaccination and safe blood transfusion practices.

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The data on hepatitis B and C status in Pakistan from the global report Hepatitis B status in adults and children:

Hepatitis B status in adults was modelled by CDA foundation[3] and was found to be 1.7% or 3.83 million HBV infected population. Only 25% of the infected population has been diagnosed (0.974 million) out of a treatment-eligible population of 1 million. So far only 131,000 (12%) patients have been put to treatment. Yearly 10,260 people die secondary to HBV, making the death rate per 100,000 as 7.3

The HBV status in children less than 5 years, shows a prevalence of 0.3% (15,600). The penta three dose coverage is 85%, hepatitis B birth dose (HB-BD) coverage is 3%. Antiviral prophylaxis in HBsAg reactive pregnant mothers is also low. According to the recent data that was collected in the provincial hepatitis programme evaluation for Sindh and Punjab, in 2023-24 the hepatitis B birth dose coverage across primary care delivery sites in Sindh and Punjab has reached 65% while vaccination is also being undertaken at the tertiary care MNCH sites where it is given by the delivery nurses4. The private sector, secondary level and home deliveries are still being missed.

HBV related policies: The analysis of HBV related policies shows that Pakistan belongs to the Eastern Mediterranean Region (EMR) and is considered a low middle income country (LMIC). The HBV elimination goal has been established and an HBV Action Plan 2024-30 has been developed. However, there is no data on elimination of HBV MTCT goal. Routine official reporting of HBV mortality and incidence has not been adopted. Though no national hepatitis sero-surveys were done but following devolution of health, two large Provinces undertook HBV prevalence surveys in the last 5 years (Punjab-2018 & Sindh-2019). The estimates of HBV economic burden have not been undertaken, systems to monitor HBV testing and treatment are partially adopted

and the universal HB-BD policy with 24 hours is also partially adopted.

HCV status: The HCV status in adults shows a modelled prevalence of 7.7% (2022) and 19,000 deaths/ year. The HCV related mortality rate per 100,000 is 7.8.

HCV elimination policies: The HCV elimination policies show that Pakistan belongs to EMR and is a LMIC. The HCV elimination goal is adopted and HCV action plan 2024-2030 has been developed but routine official reporting of HCV mortality and incidence is not adopted. Following devolution of health, two provinces have undertaken the hepatitis C sero-survey in 2018 and 2019. Simplified HCV care with no fibrosis restrictions has been adopted and so are the estimates of HCV economic burden adopted. Systems to monitor HCV diagnosis and treatment are partially adopted because an electronic medical record system is not being used across the board and many provinces are collecting paper-based data. Recommendations to screen for HCV in pregnant women is partially adopted.

The testing and treatment for HCV has been simplified with no fibrosis and sobriety restrictions adopted and no genotyping is required. The national strategy addresses key populations but national anti-discrimination law protecting people living with hepatitis is not adopted. The national policy for harm reduction in PWIDs and syringe exchange in prisons has not been adopted but decriminalization of possession of syringes, paraphernalia and drug use has been adopted.

In screening, testing and treatment strategy, licensed point of care PCR testing to detect HCV is adopted along with HCV risk-based screening and universal screening recommendations adopted. No patient co-pays for anti HCV testing or treatment. National HCV treatment guidelines have been developed with simplified HCV care (< 2 clinic visits during treatment) and, non-specialist can prescribe treatment.

HCV treatment coverage shows that diagnosis of persons living with HCV is 36% while new data from WHO global health observatory shows that in Pakistan, 54% persons with HCV have been diagnosed (WHO target 2025 >50%). This indicator was not previously used in the profile and here a different denominator has been used by WHO. The HCV treatment coverage is 20%[2] (WHO 2025 target <50%). The progress towards WHO 2025 target is <60%. Only few countries like Rwanda, Spain, Switzerland, USA and Chinese Taipei have progressed > 60% while many countries like Myanmar, Nigeria, Peru, Philippines, Senegal, South Africa, Thailand, Ukraine, Vietnam have progressed <60%.

For the People Who Inject Drugs (PWIDs) the number of needle syringe provided per PWID is 215 (2021) through global fund support, while then WHO 2025 target was 200, so we have achieved the target.

All hepatitis programme support is coming from the public budget line for HCV testing and treatment and Global Fund to fight against AIDS, tuberculosis and malaria (GFATM) are used for HBV/HCV testing and treatment in harm reduction.

HCV elimination efforts: For HCV elimination efforts, the Prime Minister's Hepatitis C Elimination Programme was launched on 29th July 2024 with a total cost of PKR 68.25 billion[4] (Federal=51% and Provincial funding=49%). The project shall run simultaneously all over Pakistan. The duration of the project is 3years (2024-27) with the 2nd phase from 2027-2030 and it is sponsored by the Ministry of National Health Services Regulation and Coordination. Out of a total population of 253 million, 50% population over the age of 12 years will undergo screening in the 1st phase. This figure comes to screening of 82.547 million individuals. The federal government will supply HCV rapid tests for 82.547 million people, PCR for 30% or 1.7 million and will support treatment for 50% or 3.8 million cases.

For good governance, a National Task Force (NTF) has been notified, which is headed by the Prime Minister along with Federal ministers, Chief ministers, and Secretaries of health. Under the NTF, the Technical Advisory Group (TAG) will function. It is an academic group that shall assist the ministry in project execution. A project management unit (PMU) has been established by the Ministry of National Health Services Regulations and Coordination (MoNHSR&C). The PMU has an IT Cell, Media cell, procurement cell, training Cell, data analysis, monitoring and evaluation cell. All Provinces shall be the implementing partners.

Implementation Strategy: An active and passive screening for HCV shall be undertaken of every one aged 12 years or more, residing in the high prevalence districts of each province. For screening the lower level of health facilities i.e. Rural Health Centre and in some cases Basic health Unit will be engaged where one or two persons will undertake rapid testing for HCV while one person will undertake the data entry in a purpose built electronic medical record. All anti HCV non-reactive will be informed that they are not exposed and therefore will not be processed further. All anti HCV reactive will undergo reflex testing (venous blood will be collected) for HCV

RNA or confirmation of disease. All showing no virus will be informed that they do not have the disease and will be given a certificate while all cases with a detected PCR will be treated.

National electronic medical record (EMR): A special software has been developed locally to capture screening, testing and treatment data. The platform of the software is simple and can be uploaded on a smartphone/tablet. It is based with live geo-referencing and is also adaptable for offline access. There is a Prime minister's portal which enables the patients to register from home and schedule appointments at nearest screening facilities.[5] Call centres will be attached to each provincial programme that will communicate lab results, medication pickup points, follow-up reminders, and issue "NO HEPATITIS C" certificates as incentives for screening or post-treatment cure. Mapping of public and private health facilities has been done. In the programme only WHO prequalified rapid tests and PCRs shall be used and HCV medicines that are made in Pakistan (Sofosbuvir and daclatasvir) shall be used.

Public private partnership: to gain access and greater participation of the population, public private partnership shall be encouraged. All NGOs, CSOs, hospitals, laboratories, doctors, educational institutions (schools, colleges, universities), population welfare department, madressa, mosques, banks, BISP, Pakistan Medical Association, physician's association etc. shall be used as partners to undertake passive screening of the population in their premises. Active screening shall be done at the health facilities for all patients and their relatives.

Challenges are many and these include improving public awareness, addressing supply chain issues, low human resource and internet access issues but these shall be dealt at the provincial and district level. With great harmony and cooperation, we can achieve this mission and make Pakistan Hepatitis free by 2030.

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