BEST PRACTICES IN LIVER HEALTH POLICY

a Liver Health is Public Health Report
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction</strong></td>
<td>4</td>
</tr>
<tr>
<td><strong>Chapter One</strong></td>
<td>5</td>
</tr>
<tr>
<td>Egypt: 100 Million Healthy Lives to Eliminate HCV</td>
<td></td>
</tr>
<tr>
<td><strong>Chapter Two</strong></td>
<td>10</td>
</tr>
<tr>
<td>India: Integrating NASH into the National Programme for Prevention</td>
<td></td>
</tr>
<tr>
<td>and Control of Cancer, Diabetes, Cardiovascular Diseases &amp; Stroke</td>
<td></td>
</tr>
<tr>
<td><strong>Chapter Three</strong></td>
<td>14</td>
</tr>
<tr>
<td>Ireland: Screening Diabetes Patients for NAFLD with Community Pharmacy</td>
<td></td>
</tr>
<tr>
<td>Data</td>
<td></td>
</tr>
<tr>
<td><strong>Chapter Four</strong></td>
<td>17</td>
</tr>
<tr>
<td>Scotland: “intelligent Liver Function Testing” (iLFT) Pathway</td>
<td></td>
</tr>
<tr>
<td><strong>Chapter Five</strong></td>
<td>21</td>
</tr>
<tr>
<td>Türkiye: Deploying Medical Recommendations to Control NAFLD &amp; NASH</td>
<td></td>
</tr>
<tr>
<td><strong>Conclusion</strong></td>
<td>25</td>
</tr>
<tr>
<td><strong>References</strong></td>
<td>26</td>
</tr>
<tr>
<td><strong>Acknowledgments</strong></td>
<td>28</td>
</tr>
</tbody>
</table>
INTRODUCTION

In recent years, there have been significant advancements in the understanding and treatment of liver health conditions, including expanded diagnostic options, vaccines and treatments for viral hepatitis, and, most recently, breakthroughs in pharmaceutical interventions for fatty liver disease. However, access to care and opportunities for liver health improvement remains elusive for many patients globally.

The ramifications of liver disease are substantial, which affects individuals, communities, and economies worldwide. From losses in productivity due to fatty liver disease and the healthcare burden of viral hepatitis to premature loss of life from end-stage liver disease, the toll is significant. Additionally, the link between liver disease and other prevalent health conditions like cardiovascular disease and diabetes further complicates treatment outcomes and increases healthcare costs.

Currently, liver disease accounts for two million deaths annually and is responsible for 1 out of every 25 deaths worldwide.\(^1\) Nonalcoholic fatty liver disease (NAFLD) affects a quarter of the global adult population and is the second-leading cause of end-stage liver disease and liver transplantation in Europe and America.\(^1\) A rise in alcohol consumption, along with an aging population and increased prevalence of metabolic risk factors, is expected to lead to a significant surge in mortality associated with both alcohol-associated and nonalcoholic fatty liver disease in the coming decades.\(^1\) However, growing political involvement and investment to implement proven healthcare advancements bring much promise. This report serves as a call to action for the policymakers and health ministers who serve their populations; it provides examples of successfully implemented policies that can be modified and followed in further communities to improve liver health outcomes around the world.

A review of this report reveals a few themes: limited public understanding of liver health, widespread disparities and underdiagnosis, and a need for public awareness of the impact of obesity on liver health. The policies presented aim to address these issues. While its first edition provides five standout examples, future iterations will highlight policies from additional settings with different barriers, resource limitations, and diverse cultural contexts. Please take insight and inspiration from this report to develop policies that will improve the lives of liver patients and their families in your community.
Egypt: 100 Million Healthy Lives to Eliminate HCV

Executive Summary

Hepatitis C virus (HCV) infection is a significant public health concern globally because it affects millions of people and poses substantial economic burdens on healthcare systems worldwide. Through unified public health efforts, Egypt has successfully transitioned from having one of the highest rates of hepatitis C in the world to one of the lowest – reducing the prevalence of hepatitis C from 10% to 0.38% in just over a decade.1 Egypt initiated national control programs starting in 2008, with a significant shift towards elimination strategies by 2018. Egypt has made remarkable strides in combating this disease by implementing a comprehensive strategy that has led to significant reductions in HCV prevalence. Key components include national screening programs, the establishment of treatment centers, negotiation for affordable drug prices, public awareness efforts, community engagement, and international collaborations. Despite challenges such as limited healthcare infrastructure and stigma, Egypt, poised to achieve full elimination targets by 2030, offers valuable lessons globally for HCV elimination efforts.

Egypt reduced the prevalence of hepatitis C from 10% to 0.38% in just over a decade.
Background

It is crucial to understand the burden of HCV in Egypt to understand the policy solutions deployed. Egypt, a lower middle-income country with a population of 100 million, had one of the highest burdens of HCV infections globally. In 2008, 15% of the population had antibodies to HCV, indicating they had been exposed to the virus, and 1 in 10 Egyptians aged 15–59 years had chronic HCV infection.² Chronic HCV infection can progress to advanced liver disease, including cirrhosis and liver cancer. Vulnerable populations, such as those with limited access to healthcare, are disproportionately affected. Addressing this burden through effective policy interventions was imperative to reduce HCV prevalence, prevent new infections, and alleviate the economic burden on the healthcare system, ultimately improving the health outcomes of the Egyptian population.

Objectives

In 2008, Egypt’s National Committee for Control of Viral Hepatitis (NCCVH) established the first Egyptian National Control Strategy for Viral Hepatitis, focusing on prevalence detection, treatment access expansion, and research quality enhancement. The initial objectives of the program were straightforward and ambitious, with the goal of infection control:

1. Expand detection through a national screening program.
2. Treat 2 million patients annually by 2030 to reduce new infections and prevent deaths.

Building on earlier initiatives, efforts to combat HCV intensified in 2014.

1. The 2014–2018 Plan of Action for the Prevention, Care & Treatment of Viral Hepatitis emphasized prevention, education, and access to care, with the goal of treating 300,000 patients annually.
2. Egypt committed to WHO’s 2030 goal of eliminating viral hepatitis and consulted with the World Bank to model elimination scenarios, ultimately opting for an ambitious approach that would eventually reduce health budgetary burdens.
3. In its transition from HCV control to elimination, Egypt seeks to lead by example and become a global model for hepatitis C elimination.²
Policy Components and Implementation

1. Establishment of treatment centers: The NCCVH, which was established in 2006 by the Ministry of Health in Egypt to help develop strategies for managing HCV in the country, set up specialized treatment centers across the country to provide comprehensive care for HCV patients. These centers provided access throughout the country to deliver treatment, monitor progress, and ensure patient retention.2

2. Development of treatment guidelines: NCCVH formulated treatment guidelines to standardize care and ensure quality across all healthcare facilities.2

3. Negotiation for affordable drug prices: The Egyptian government worked with several local and international pharmaceutical and medical device companies to negotiate reduced prices and procure direct-acting antiviral drugs for all residents, which helped make treatment affordable and accessible to the full population.2

4. Mass screening campaigns: Egypt launched mass screening campaigns, such as the “100 Million Seha” (100 Million Healthy Lives) campaign, to reach a significant portion of the population and identify individuals with HCV infection. These campaigns utilized a combination of media coverage, community engagement, and widespread availability of screening sites to maximize participation.2

5. Public awareness and education: The Ministry of Health and Population conducted extensive public awareness and education campaigns to reduce stigma, increase testing rates, and promote understanding of HCV transmission, prevention, and treatment options. These efforts aimed to empower individuals to seek testing and treatment proactively. The local media also played a role in promoting screening and treatment initiatives to the public.2

6. Monitoring and evaluation: Efficient monitoring and evaluation mechanisms were established and used to track progress, identify gaps, and inform adjustments. Regular evaluation of implementation activities helped optimize resource allocation and improve program effectiveness, while analysis of the outcomes allowed evaluation of the success of the program.2

7. Community engagement: Various community engagement strategies were employed to foster trust, promote participation, and address cultural barriers to care. These strategies included engaging community leaders, forming partnerships with local organizations, and tailoring interventions to meet the needs of diverse populations.2

8. International collaborations: Egypt collaborated with international organizations, including the World Health Organization (WHO) and the Coalition for Global Hepatitis Elimination, to leverage technical expertise, learn best practices, and access resources for program implementation. The World Bank provided $530 million of monetary assistance from the International Bank of Reconstruction and Development.3 By connecting Egypt to these resources, international partnerships played a crucial role in the country’s efforts to combat HCV.2
Challenges to Implementation

Egypt faced some significant challenges in implementing its HCV programs, including limited healthcare infrastructure, financial constraints, access barriers, stigma, treatment costs, political instability followed by a new president in 2014, and the overall complexity of HCV care. International collaborations were a huge contributor to combating these challenges. One of the largest challenges was low rates of follow-up testing after treatment and inadequate screening participation. Approximately 12.5 million Egyptian adults, constituting 20% of eligible adults did not undergo screening. While the cause of this is unidentified, the absence from screening could be attributed to the fact that around 10 million Egyptians live and work out of the country. Certain aspects of primary prevention could have been inadequately addressed such as limiting HCV in intravenous drug users as well as sex workers. The NCCVH plans to establish a harm reduction program for drug users, including syringe distribution as well as the establishment of a national follow-up program to combat these insufficiencies in implementation. Overcoming these barriers required a coordinated effort to ensure comprehensive care delivery and achieve the goal of eliminating HCV as a public health threat in Egypt.

Impact

• Egypt has successfully transitioned from having one of the highest rates of hepatitis C in the world to one of the lowest – reducing the prevalence of hepatitis C from 10% to 0.38% in just over a decade.1

• The “100 Million Seha” campaign spearheaded by the Ministry of Health and Population has facilitated the testing of over 60 million individuals and the treatment of more than 4 million people.2

• The incidence of new infections has drastically reduced from 300 per 100,000 in 2014 to 9 per 100,000 in 2022, bringing Egypt closer to the ultimate goal of HCV elimination.2

• Egypt has made significant strides in combating HCV infection, to become the first, and so far only, country to attain the “gold tier” status on the path to elimination as per WHO criteria.3,4 This achievement signifies Egypt’s fulfillment of WHO’s programmatic coverage targets, which positions the nation to achieve reduced incidence and mortality targets for full elimination before 2030.2
Conclusion

Egypt’s success in combating HCV stands as a global model. Through a multifaceted approach including national screening programs, affordable treatment access, public awareness campaigns, and international collaborations, Egypt transitioned from a high prevalence country to a leader in elimination efforts for HCV. Enabled by political support and strategic partnerships, Egypt’s comprehensive strategies have significantly reduced both incidence and prevalence, showcasing the importance of sustained commitment and collaborative action.

Continued dedication to sustaining these efforts is essential for Egypt to achieve its ultimate goal of HCV elimination by 2030. Encouragingly, the NCCVH plans to sustain HCV-related gains through initiatives such as screening pregnant women for HCV and hepatitis B virus (HBV), screening students in schools, and rescreening and treatment for at-risk individuals who missed or did not attend the initial screening program. Political commitment, adequate funding, and ongoing public engagement are imperative to maintain momentum and further decrease the HCV burden. Egypt's experience provides valuable lessons for other countries facing similar challenges in combatting HCV and advancing toward elimination.
Executive Summary

In 2021, India spearheaded a national initiative to address NAFLD and nonalcoholic steatohepatitis (NASH), thus recognizing the escalating prevalence and socioeconomic implications of these liver diseases. Integrated within the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS) frameworks, this guidance prioritizes early detection to mitigate healthcare costs and foster socioeconomic growth. Operational guidance spans management principles, monitoring, screening, health promotion, media planning, and capacity building. Implementation efforts include developing national guidelines, training healthcare workers, and establishing centers of excellence. Challenges in securing funding and launching training programs exist, nevertheless, analysts foresee a reduction in NASH prevalence, which would position India as a global leader in addressing NAFLD/NASH.
Background

This initiative, crafted by a coalition of prominent physicians and health policymakers, emerged in response to growing concerns over the rising prevalence of NAFLD/NASH and its consequential social and economic burdens on the nation. Studies suggest the prevalence of NAFLD is around 9% to 32% of the general population in India, with a higher prevalence in those who are overweight or obese and those with diabetes or prediabetes.¹ Researchers have found NAFLD in 40% to 80% of people who have type 2 diabetes and in 30% to 90% of people who are obese.¹ Lean NAFLD, NAFLD in patients who are not obese, is especially prevalent in Indian populations. Cumulative survival has been shown to be significantly shorter for patients with lean NAFLD, while risk of severe liver disease is higher compared to overweight/obese NAFLD.² With this heightened risk in mind for the Indian population, efforts to reduce fatty liver disease are of vital importance to the nation.

Researchers have found NAFLD in 40% to 80% of people who have type 2 diabetes and in 30% to 90% of people who are obese.

Objectives

As an integral component of the broader NPCDCS initiative, operational guidelines were unveiled to streamline the detection and treatment of NAFLD/NASH, across five categories.³

1. Establish operational principles for managing NAFLD/NASH at community, regional, and national levels.

2. Implement monitoring and screening protocols.

3. Foster health promotion strategies tailored towards NAFLD/NASH.

4. Form media plans to raise awareness.

5. Enhance capacity building and training programs.

Lean NAFLD is disproportionately high in Indian populations, and it is linked to higher risk of severe liver disease and shorter survival.
Policy Components and Implementation

The Ministry of Health and Family Welfare spearheaded the launch of this guidance, which emphasizes the goal of early detection of NAFLD/NASH, with a two-pronged approach of curtailing escalating healthcare costs and mitigating the adverse effects on socio-economic development.\(^3\)

The monitoring framework for all non-communicable diseases (NCDs) has been expanded to encompass indicators for NAFLD/NASH. Population-based risk factor screening data can now be analyzed through the NCD data portal. At both the national and state levels, the following initiatives are underway\(^3\):

1. Development of national guidelines for the diagnosis and treatment of NAFLD/NASH.
2. Creation of a training manual for healthcare workers to disseminate information and educate communities.
3. Establishment of a Centre of Excellence for NAFLD/NASH tasked with overseeing the implementation of actions outlined in the guidelines at the state level.
4. Implementation of a clinical pathway for the detection and management of NAFLD/NASH by integrating liver function tests (LFTs) into primary care based on Clinical Biochemistry Analytical Committee recommendations with risk stratification tools and transient elastography (an ultrasound-based non-invasive diagnostic technology).

Examination of Findings

Evaluation is still underway to assess the effectiveness and impacts of this policy.

Challenges to Implementation

Incorporating NAFLD/NASH into the national health priorities through NPCDCS-enabled funding would cover various activities like health promotion, population-based screening, monitoring and evaluation, and capacity-building efforts. However, since funding explicitly marked for NAFLD/NASH care pathway is not specified, there might be competition for resources with other NCDs. This could hinder implementation. Capacity-building will play a crucial role in facilitating the widespread rollout of management guidance. Training programs have not yet been put into action.

Dedicated funding for NAFLD/NASH and investment in workforce capacity building will be needed to fully deploy this initiative in India.
Impact

- According to analysts at GlobalData, the inclusion of NAFLD into the national prevention program is expected to lead to a decrease in the prevalence of NASH in India.⁴

- This adds to the strength of India’s efforts to address chronic disease through lifestyle promotion. Combined with the country’s ‘Eat Right India’ and ‘Fit India Movement’ initiatives, the government has taken an active role in the shift from diagnostic to preventive care.¹

- India became the first country to approve an innovative therapy, saroglitazar (Lipaglyn), a dual peroxisome proliferator-activated receptor α/γ agonist for NAFLD in December 2020, following approval for NASH in March 2020.⁵

Conclusion

India’s proactive approach to tackling NAFLD/NASH through the integration of operational guidance shows its commitment to addressing significant health challenges. By prioritizing early detection, implementing monitoring and screening protocols, fostering health promotion strategies, and building the capacity of its workforce and infrastructure, India has set a precedent for global action. Despite challenges in funding and launching training programs, the anticipated decrease in NASH prevalence shows the potential effectiveness of India’s efforts.
Ireland: Screening Diabetes Patients for NAFLD with Community Pharmacy Data

Executive Summary

NAFLD poses a significant health challenge for the Irish population. Its prevalence closely aligns with that of type 2 diabetes (T2D) and, to a lesser extent, obesity, with projections indicating it could impact up to a quarter of Ireland’s population within the next decade.¹ Dr. Suzanne Norris (St James’s Hospital and Liver Wellness®) and collaborator Diabetes Ireland spearheaded an initiative to boost liver health by screening for NAFLD and NASH in T2D patients. Using community pharmacy and transient elastography, an ultrasound-based non-invasive diagnostic technology, the program swiftly identifies high-risk individuals for tailored assessment and treatment. Though facing funding challenges, the initiative promises early detection, cost savings, and better outcomes, which emphasizes the need for ongoing investment in liver health initiatives for Ireland’s population.

Nonalcoholic fatty liver disease (NAFLD) poses a significant health challenge for the Irish population.
Background

NAFLD is increasingly recognized as a pressing health issue in Ireland as rates of obesity and T2D rise. Ireland is estimated to become Europe’s most overweight nation by 2025: 36% of the Irish population aged over 50 is obese, with a further 43% overweight.\(^2\) Lifestyle factors like sedentary behaviors and poor dietary habits, compounded by genetic predispositions and socioeconomic factors, contribute significantly to NAFLD susceptibility and severity.

The downstream impacts of NAFLD extend beyond individual health, imposing substantial economic and public health burdens. Costs include direct healthcare costs for diagnosis, management, and treatment and indirect costs such as productivity loss and added travel. Progression to severe stages like NASH, cirrhosis, and liver cancer significantly increases healthcare expenditures and mortality rates.\(^3\) Addressing NAFLD through targeted interventions, including liver screening initiatives, is crucial to mitigate these downstream impacts and alleviate the growing burden on both individuals and society as a whole in Ireland.

Objectives

- Evaluate the practicality and advantages of screening high-risk individuals for NAFLD/NASH in primary care settings.
- Develop a framework and evidence to establish a national policy.
- Reduce rates of progression to NASH and cirrhosis through early detection and treatment.

Policy Components and Implementation

- Individuals with T2D are identified through pharmacy prescription records.
- After identification, target individuals receive invitations to participate in a screening with transient elastography technology at a community-based location.\(^2\)
- After the screening, assessments are provided on the same day, with personalized recommendations forwarded to the respective primary care physician or consultant for further treatment considerations.\(^4\)
- High-risk individuals and treatment guidance follow the recommendations outlined in the 2016 practice guidelines from the European Association for the Study of the Liver (EASL).\(^2,4\)
Impact

Transient elastography technology, usually limited to specialized centers, demonstrated the capability to facilitate risk stratification and enable earlier detection of liver fibrosis when deployed in a community setting. The assessment of fibrosis outside of the hospital environment is anticipated to yield significant cost savings for the broader healthcare system, considering the national economic burden of NAFLD in terms of direct annual medical costs has been estimated at $103 billion in the US, €27.7 billion in three European countries combined (Germany, France, Italy) and £5.24 billion in the UK. Given that early diagnosis of NAFLD is crucial to a patient’s liver health, this initiative provides patients the opportunity for an early diagnosis, limiting progression and further complications.

Conclusion

Led by Dr. Suzanne Norris (St James’s Hospital and Liver Wellness®) and in collaboration with Diabetes Ireland, the initiative to enhance liver health in Ireland through proactive screening for NAFLD/NASH among individuals with T2D represents a critical step towards improving public health outcomes by promoting early screening and diagnosis for a high-risk population.

By leveraging community pharmacy data to identify high-risk patients and transient elastography for quick screening, this initiative identifies liver fibrosis at earlier stages than usual, allowing for timely interventions and personalized treatment recommendations. Overall, the potential impact of this policy extends beyond the immediate care pathway, with anticipated benefits including improved patient outcomes, reduced healthcare costs, and enhanced health equity. Moving forward, funding and community buy-in will be essential to effectively operationalize this technique to improve liver health by addressing the pressing public health issue of NASH for individuals across Ireland.
Scotland: The “intelligent Liver Function Testing” (iLFT) Pathway

Executive Summary

The intelligent Liver Function Testing (iLFT) pathway emerges as a crucial response to the escalating liver disease burden in Scotland, leveraging automated algorithms to streamline diagnosis and management. The iLFT enables primary care practitioners to electronically request tests, which brings about automated investigations and tailored management plans. Despite challenges such as anticipated increases in referrals and the need for additional laboratory technology and training, iLFT demonstrates significant benefits, including improved diagnosis rates and cost-effectiveness. General practitioner feedback is overwhelmingly positive, and the intention by the National Health Service (NHS) Scotland to adopt the iLFT program throughout the country underscores its potential to enhance patient outcomes and healthcare efficiency.

The intelligent Liver Function Testing (iLFT) pathway emerges as a crucial response to the escalating liver disease burden in Scotland.
Background

The prevalence of NAFLD and NASH in Scotland reflects a significant public health concern. There were 17.4 chronic liver disease deaths per 100,000 population in Scotland in 2022.¹ Studies have indicated a rising prevalence of NAFLD/NASH that mirrors global trends driven by sedentary lifestyles, poor dietary habits, and rising rates of obesity. Liver disease is closely linked with inequality and deprivation. In Scotland, premature deaths from liver disease are 4 times higher in the most deprived areas compared with the most affluent.² Early diagnosis of a progressive disease such as liver cirrhosis holds immense value as a crucial upstream intervention to mitigate the risk of complications like liver cancer and the need for transplantation, which will ultimately enhance patient outcomes and quality of life. There is an urgent need for target interventions and policy measures, such as iLFT to address this growing health challenge.

Objectives

- Authenticate an iLFT tool for diagnosing prevalent liver conditions, offering fibrosis staging, and recommending management strategies.³
- Establish clear, objective criteria necessary for confident diagnosis in a substantial real-world cohort of patients.³
- Diminish morbidity, mortality, and expenses linked with late-diagnosed liver diseases by enhancing early detection, ensuring proper referrals, and maintaining cost effectiveness.⁴

Policy Components and Implementation

Professor John Dillon, consultant gastroenterologist and hepatologist, and Dr. Ellie Dow, consultant in biochemical medicine, worked with colleagues from NHS Tayside and the University of Dundee to develop the iLFT pathways to detect liver disease at an early stage, potentially saving thousands of lives.⁵

- In Dundee, general practitioners can electronically request liver function tests (LFTs).⁵
- General practitioners can input patient data such as BMI, alcohol consumption, and other risk factors.⁵
- If abnormal LFT results are detected, additional tests are automatically conducted on the same blood sample to identify the cause and stage of fibrosis.⁵
- The system automatically identifies the diagnosis and determines the need for specialist referral.⁵
- The system provides a management plan, including lifestyle advice for patients with NAFLD/NASH.⁵
- The iLFT utilizes automated algorithms to investigate abnormal LFT results from initial blood samples in primary care.⁵
Examination of Findings

- The accuracy of diagnosis and management advice from 323 iLFT cases were compared to the clinician's final opinion to confirm validity.\(^3\)
- An automated pathway achieved diagnostic agreement in 82.4% of cases, indicating appropriate referral selections by the algorithm.\(^3\)
- Correct referral choices were made in 91.3% of cases, irrespective of diagnostic accuracy.\(^3\)
- Implementation of iLFTs led to a 43% increase in diagnoses.\(^6\)
- iLFTs proved cost-effective, estimated to save the NHS £3,216 per patient over their lifetime.\(^6\)

Challenges to Implementation

Anticipated increases in referrals to liver services are expected due to heightened diagnosis and follow-up, particularly in the short term, but are crucial for timely interventions and improved outcomes.\(^4\) The anticipated increases in referrals to liver services may place additional strain on specialists’ workload and resources, necessitating careful management of patient flow and allocation of healthcare resources to ensure efficient and effective delivery of care. While the algorithm’s implementation minimally impacts training and resources in primary care, additional technology and training are needed in testing laboratories. Testimonials from patients, doctors, and health system administration may be necessary to boost confidence in the algorithm among general practitioners before wider implementation.

Increased diagnosis means increased referrals, which may put strain on liver specialists.
Impact

- iLFTs offer a safe and reliable method of risk-stratifying and diagnosing patients based on a single blood draw, thus reducing the necessity for invasive, expensive procedures.\(^6\)

- General practitioners expressed positivity towards iLFTs, found them user-friendly and workload-reducing, and expressed a desire to maintain access.\(^6\)

- Since being launched as a routine service in NHS Tayside, the program has tested more than 7,500 patients. The tests have now been made standard practice across NHS Tayside, and the Scottish government’s Modern Outpatient Programme is considering the opportunities this might present, with work underway to roll this out more widely across Scotland. It has already been established in sites in England.\(^5\)

Conclusion

The iLFT pathway offers a promising solution to address under-investigated abnormalities in LFTs. By utilizing automated algorithms, iLFT streamlines the diagnostic process, leading to early diagnosis, reduced referrals, and technology/training needs. iLFT has demonstrated notable benefits: increased diagnosis rates, cost-effectiveness, and positive feedback from general practitioners. The endorsement for adoption by NHS Scotland highlights confidence in iLFT’s ability to improve patient outcomes and healthcare efficiency. Continued support and integration efforts are essential for maximizing iLFTs impact across healthcare settings. Overall, iLFT represents a valuable tool in enhancing early detection, proper referrals, and cost-effective management of liver diseases, contributing to improved patient care and outcomes.
Türkiye: Deploying Medical Recommendations to Control NAFLD & NASH

Executive Summary

The prevalence of NAFLD in Türkiye is concerning, affecting almost 1 in 2 individuals within the population. Despite its significant impact on public health, the nation lacks comprehensive nationwide studies on NAFLD and its progressive form, NASH. In response, the Turkish Association for the Study of the Liver (TASL) issued guidelines tailored to the Turkish population, emphasizing evidence-based management strategies. These guidelines coincide with Türkiye’s 2017 National Plan to Combat Non-Communicable Diseases (NCDs), a plan led by the Public Health Institute of the Ministry of Health in collaboration with other ministries, governmental bodies, academic institutions, and civil society organizations. However, challenges persist, such as the need for cost-effective screening programs specifically targeting NAFLD/NASH. There has been little response to the guidelines, possibly due to competing health priorities that must be overcome to address this pressing public health issue and hopefully contribute to the implementation of health policies to support NAFLD/NASH outcomes in Türkiye.

The prevalence of non-alcoholic fatty liver disease (NAFLD) in Türkiye is concerning, affecting almost 1 in 2 individuals within the population.
Background

NAFLD impacts nearly half of Türkiye’s population – 48.3%.¹ NAFLD stands as one of the leading causes of chronic liver disease and cirrhosis in Türkiye, like in many Western countries.² Existing research primarily comprises small-scale, single-centered studies targeting specific groups, which leaves a notable gap in understanding.¹ To address this deficiency, health leaders and policymakers must initiate urgent large-scale, multi-center investigations to accurately assess the burden of NAFLD and NASH across diverse populations in Türkiye. Such endeavors are pivotal to informing and providing evidence to support policies and interventions to combat the escalating public health crisis posed by NAFLD and NASH in the country.

Objectives

2017 National Plan to Combat NCDs objectives:

- Prioritize prevention and control of NCDs in national and international agendas.³
- Strengthen national capacities, leadership, and partnerships for NCD prevention.³
- Reduce modifiable risk factors and address social determinants through health promotion.³
- Enhance health systems’ response to NCDs and support research and development.³
- Monitor trends and assess progress in NCD prevention and control.³

TASL NAFLD and NASH guidelines objectives:

- Provide evidence-based management guidelines tailored to Türkiye’s population.⁴
- Encourage the formulation of early intervention strategies for NAFLD diagnosis and prevention.⁴
Policy Components and Implementation

In 2017, Türkiye’s Ministry of Health initiated a comprehensive action plan for NCDs. In 2021, the Turkish Liver Association released clinical guidelines for NAFLD, advocating lifestyle modifications and cost-effective screening programs. The Ministry of Health promotes healthy lifestyle choices to prevent cardiovascular disease, which indirectly reduce NAFLD/NASH incidence. Currently, no established policies exist for cost-effective screening programs, but these guidelines are expected to inform future health policies in this area.

2017 NCD Action Plan:

• **Prevention**: Focus on tobacco control, healthy diets, physical activity, and alcohol reduction. Use community-based interventions like education programs and support groups.

• **Early Detection and Diagnosis**: Improve access to screenings for common NCDs such as diabetes, hypertension, and cancer within existing healthcare systems.

• **Treatment and Management**: Strengthen primary healthcare for comprehensive NCD care and ensure access to essential medicines and technologies.

• **Surveillance and Monitoring**: Establish a national NCD registry to collect data on prevalence, incidence, and risk factors, and enhance surveillance systems.

• **Intersectoral Collaboration**: Engage stakeholders and establish committees to coordinate efforts between government, healthcare, academia, and civil society to address social determinants of health.

TASL Guidelines on NAFLD and NASH:

• Standardize clinical approaches that benefit specialists in various medical fields for NAFLD diagnosis and treatment.

• Increase the use of non-invasive diagnostic methods, given research indicating the clinical efficacy of non-invasive diagnostic methods such as transient elastography and FIB-4 (a liver fibrosis biomarker) within Turkish populations.

• Evaluate individuals with metabolic abnormalities for NAFLD presence.

• Begin diagnosis with abdominal ultrasound, with consideration of transient elastography and magnetic resonance elastography (MRE) for liver fibrosis assessment if accessible.

• Liver biopsy remains the gold standard for diagnosis.

• Emphasize lifestyle modifications, including dietary changes, exercise, and management of metabolic disorders, for effective NAFLD management.
Examination of Findings

Achieving the behavioral risk factor targets in the Multisectoral Action Plan of Türkiye for Noncommunicable Diseases 2017–2025 would have averted approximately 20,000 deaths in 2017.² Evaluation is still underway to assess the effectiveness and implications of Türkiye’s NASH and NAFLD guidelines.

Challenges to Implementation

The national action plan prioritized interventions and capacity-building that offer broad benefits across all non-communicable diseases, resulting in greater cost-effectiveness. This may result in diminished emphasis on NAFLD/NASH specifically. There is evidence supporting the need for cost-effective screening programs and funding to launch pilot initiatives.

Impact

Studies have indicated that attaining non-communicable disease policy objectives can avert numerous fatalities within the nation.² However, there has been minimal uptake to the NAFLD/NASH guidelines, which suggests that fatty liver disease is considered a lower priority compared to other NCDs.

Conclusion

Addressing NAFLD/NASH in Türkiye’s healthcare system is crucial, starting by integrating initiatives into existing national NCD action plans and establishing pilot screening programs. Leveraging resources and collaborating with health stakeholders can effectively combat NAFLD/NASH and improve health outcomes. Türkiye’s proactive approach, exemplified by TASL guidelines and the 2017 Action Plan, demonstrates a commitment to combating NCDs and liver diseases. Continued dedication, collaboration, and resource allocation are vital for sustained progress in tackling these complex public health challenges.
CONCLUSION

This policy report highlights the critical yet often overlooked issue of liver health in several national contexts. While this first edition does not and cannot provide a comprehensive review of every innovative liver health policy, it instead highlights a selection of successful policies that have resulted in tangible improvements for patients. Despite affecting over 1.5 billion people worldwide, liver conditions still receive limited or delayed treatment, are subject to stigma, and lead to unnecessarily poor outcomes. With the prevalence of liver disease projected to rise due to sedentary lifestyles and overnutrition, urgent action is needed to address this growing burden.

Liver health requires a public health approach that will prioritize public education, accessibility to preventive measures, early detection, and seamless integration with healthcare systems. Practical interventions that consider individual preferences, cultural backgrounds, and socioeconomic circumstances, are essential for effective disease management.

Global Liver Institute presents this report to inspire solutions and garner greater awareness of and political commitment to liver health. It builds upon the foundation of international gatherings of experts to place liver health at the forefront of public health agendas worldwide.

Moving forward, stakeholders across healthcare sectors must collaborate to implement policies and programs that prioritize liver health promotion and disease prevention. By working together, we can improve health outcomes for millions of individuals globally.
INTRODUCTION


EGYPT


INDIA


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IRELAND


SCOTLAND

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TÜRKİYE


CONCLUSION


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Global Liver Institute (GLI) is a 501(c)3 nonprofit organization founded in the belief that liver health must take its place on the global public health agenda commensurate with the prevalence and impact of liver illness. GLI promotes innovation, encourages collaboration, and supports the scaling of optimal approaches to help eradicate liver diseases. Operating globally, GLI is committed to solving the problems that matter to liver patients and equipping advocates to improve the lives of individuals and families impacted by liver disease. GLI holds Platinum Transparency with Candid/GuideStar, is a member of the National Health Council, and serves as a Healthy People 2030 Champion. Follow GLI on Facebook, Instagram, LinkedIn, and YouTube or visit www.globalliver.org. Follow GLI on Facebook, Instagram, LinkedIn, and YouTube.

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