MASLD in the Metabolic Health Agenda:
A Public Health Blueprint for Multidisciplinary Action

Professor Jeffrey V Lazarus [Jeffrey.Lazarus@ISGlobal.org]

Professor of Global Health, CUNY Graduate School of Public Health & Health Policy, New York, NY, USA
Head, Public Health Liver Group, ISGlobal, Hospital Clínic, Barcelona, Spain
Affiliated Professor, WHO Collaborating Centre for Research and Training in the Patient Perspective on Medicines Use, Univ of Copenhagen, Denmark
Director, Global Think-tank on Steatotic Liver Disease and MASH Cities

PH Liver Group

Building consensus within the field – MASLD and MASH public health threats

b

Leadership for the NAFLD public health agenda
- Form a global coalition to develop a roadmap
- Collaborate across disciplines
- Develop guidelines, policy briefs and action plans

Human and economic burden
- Invest in research
- Develop global, regional and local investment cases
- Consider alternate research methods

Awareness
- Reconsider the terminology of fatty liver diseases
- Develop simple knowledge products and educational courses
- Engage health communication experts

Treatment and care
- Improve access to effective treatments
- Standardize trial end points
- Identify interventions with sustained impact

What will it take to advance the NAFLD public health agenda?

Policy strategies and a whole-of-society approach
- Address NCDs holistically
- Incorporate NAFLD into technical materials on NCDs
- Dedicate a World Health Day (7 April) to liver health

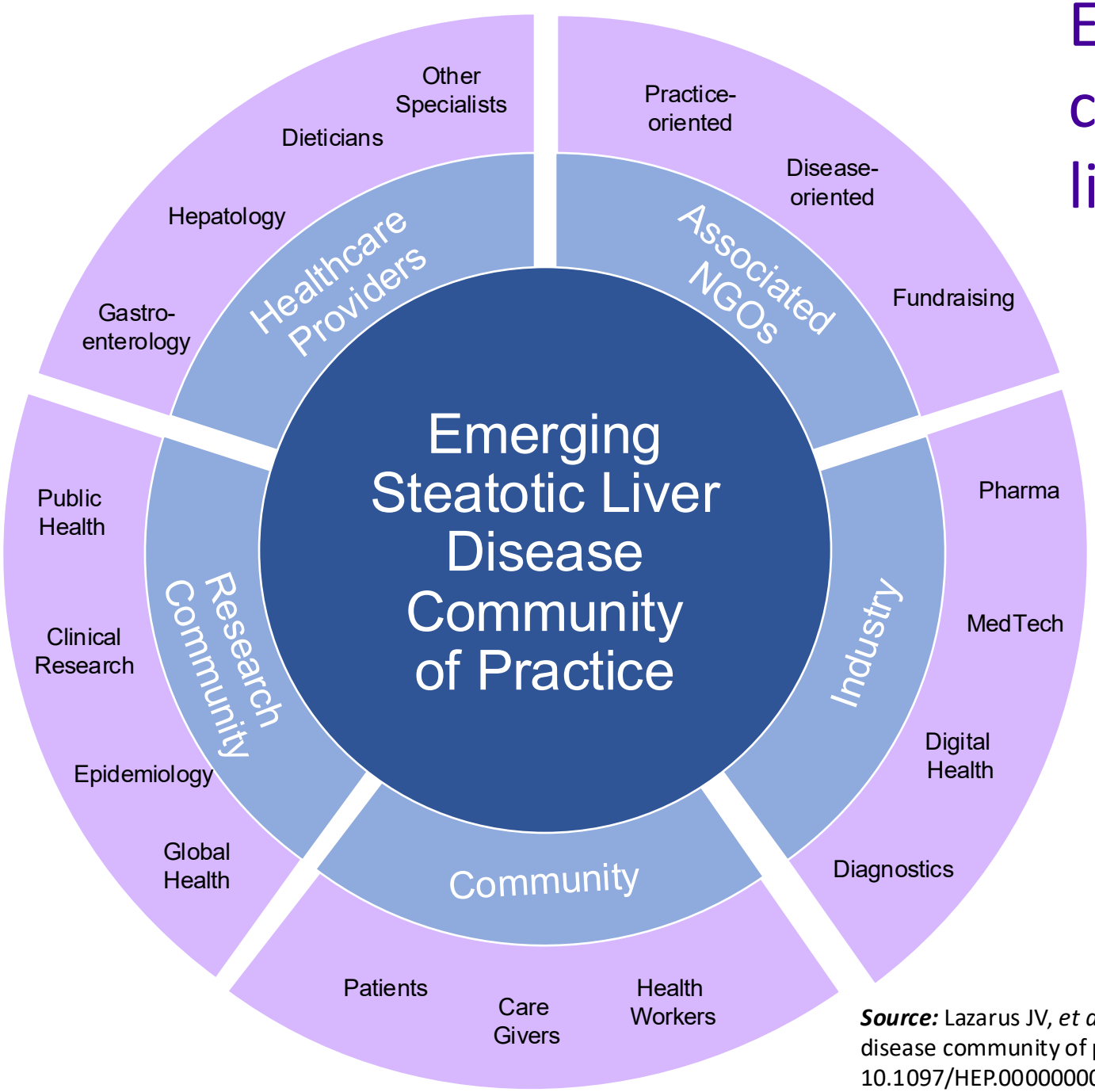
Patient and community perspectives
- Support patient groups
- Involve affected populations

Defining and implementing models of care
- Design and implement local care pathways
- Make multidisciplinary care models the norm
- Equip providers with the necessary tools
- Expand the use of implementation research

Source: Lazarus JV, *et al.* Advancing the global public health agenda for NAFLD: a consensus statement. *Nature Reviews Gastro Hep*. 2022;19:68-70.

A research & action agenda to turn the tide on steatotic liver disease – that goes beyond “the liver”

- Using a Delphi methodology, over two rounds steatotic liver disease research and action priorities were reviewed and ranked
- Across rounds, consensus increased in all domains for both the research and action domains
- The final agenda includes:
  - 👩🏾‍🔬 **28 research priorities** to tackle steatotic liver disease (*Journal of Hepatology* 2023)
  - 🎯 **29 action priorities** to turn the tide on steatotic liver disease (*Hepatology* 2023)



Expand the SLD community of practice beyond liver specialists

+Endocrinologists

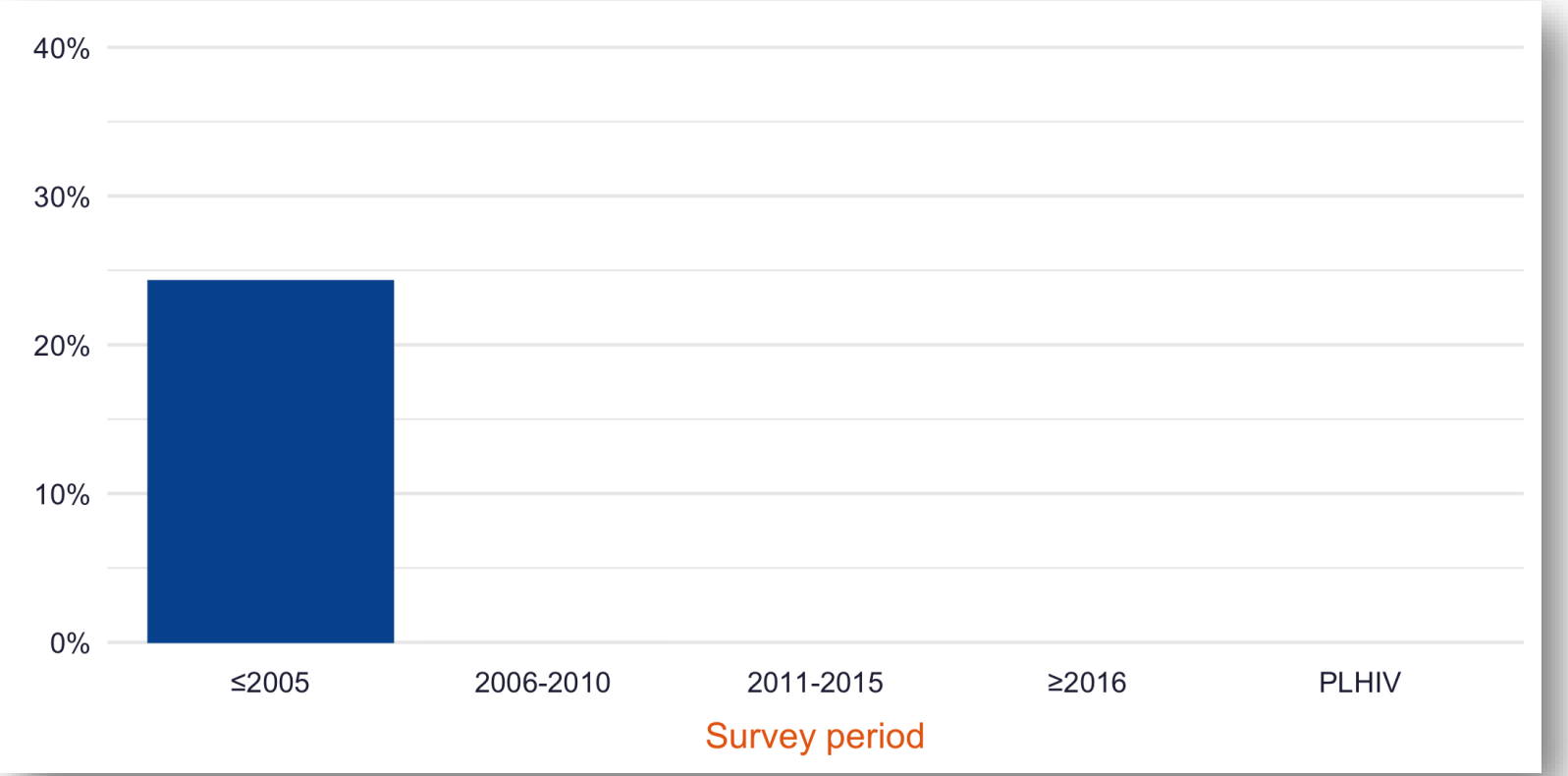
+Obesity management specialists

+Labs

Source: Lazarus JV, *et al.* It is time to expand the fatty liver disease community of practice. *Hepatology*. 2023 Jun 23. doi: 10.1097/HEP.0000000000000411.

AACE®

Global MASLD Prevalence is High and Rising: A Public Health Threat

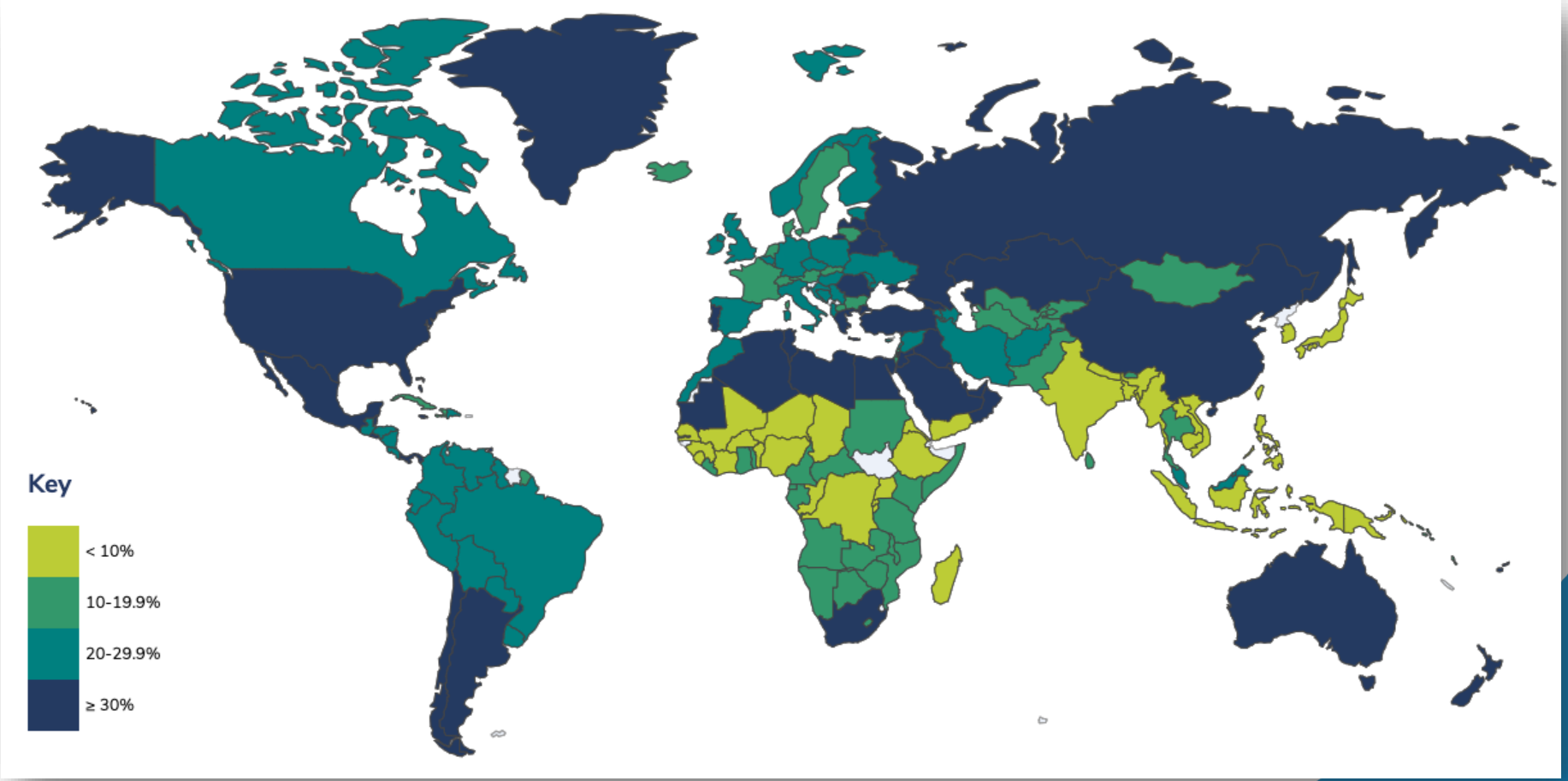


MASLD:
metabolic dysfunction-associated steatotic liver disease

Sources: Riazi *et al*. The prevalence and incidence of NAFLD worldwide: a systematic review and meta-analysis. *Lancet GastroHep*. 2022.
Manzano-Nunez R. *et al*. Uncovering the NAFLD burden in people living with HIV from high- and middle-income nations: a meta-analysis with a data gap from Subsaharan Africa. *JIAS*. 2023.

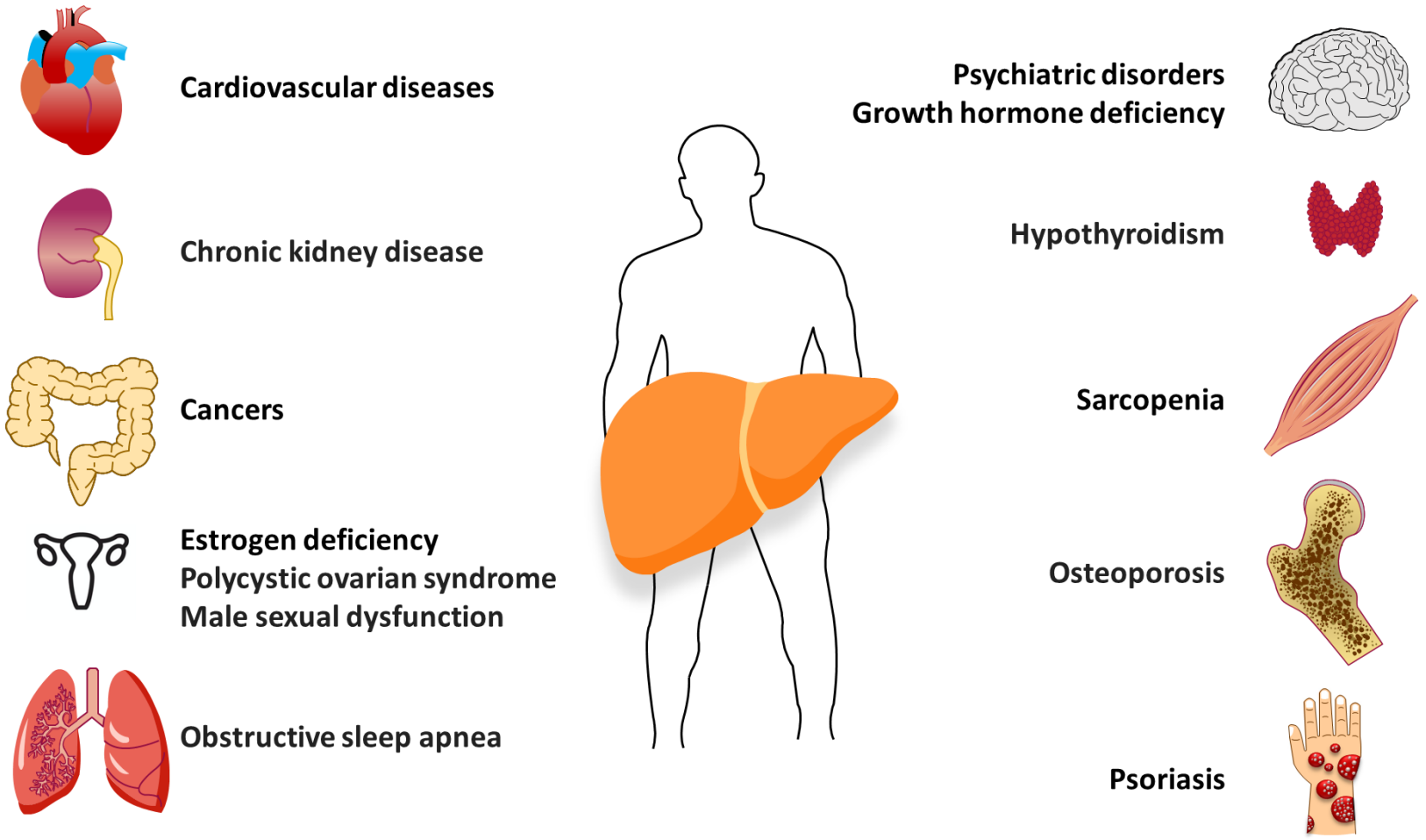
Obesity & Metabolic Syndrome: Major Drivers of the MASLD Increase

Obesity prevalence map



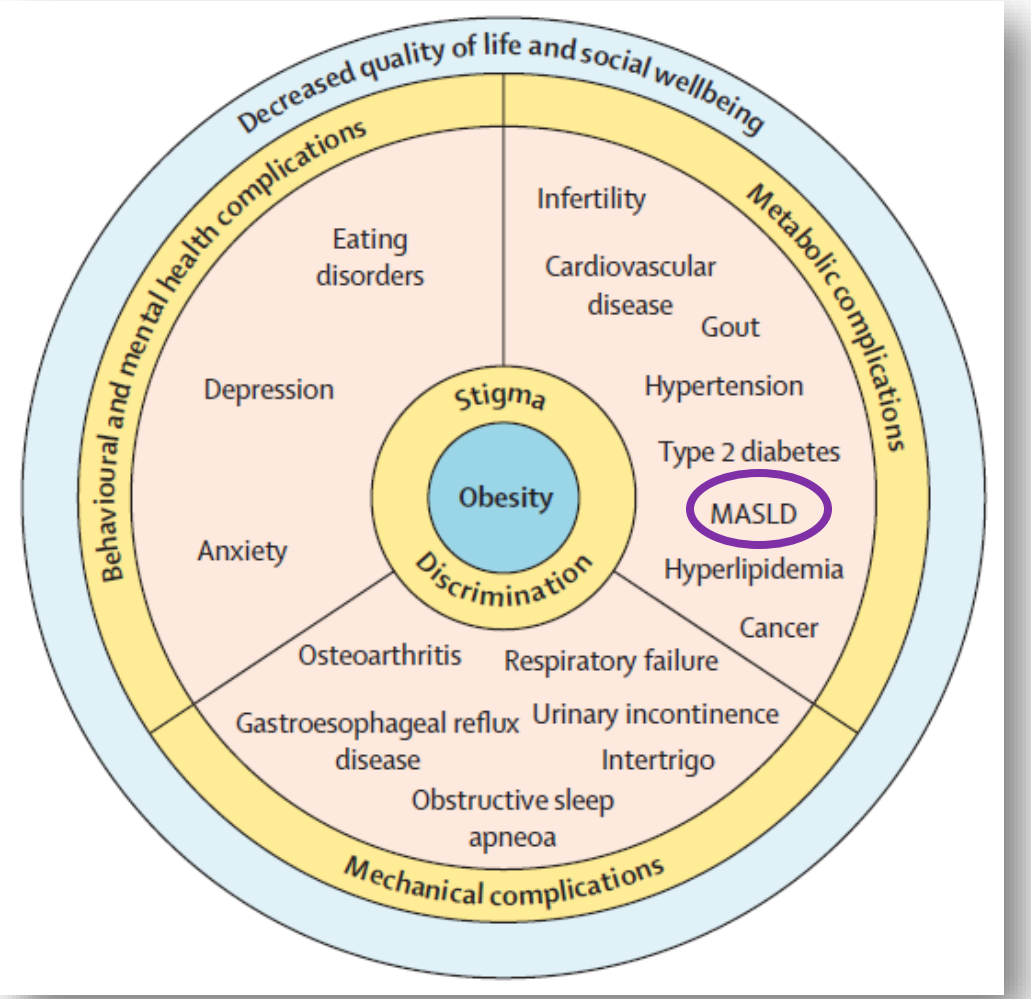
Source: World Obesity Federation: https://data.worldobesity.org/region/who-africa-region-2/#data_prevalence

MASLD Forms Part of Obesity-related Complications



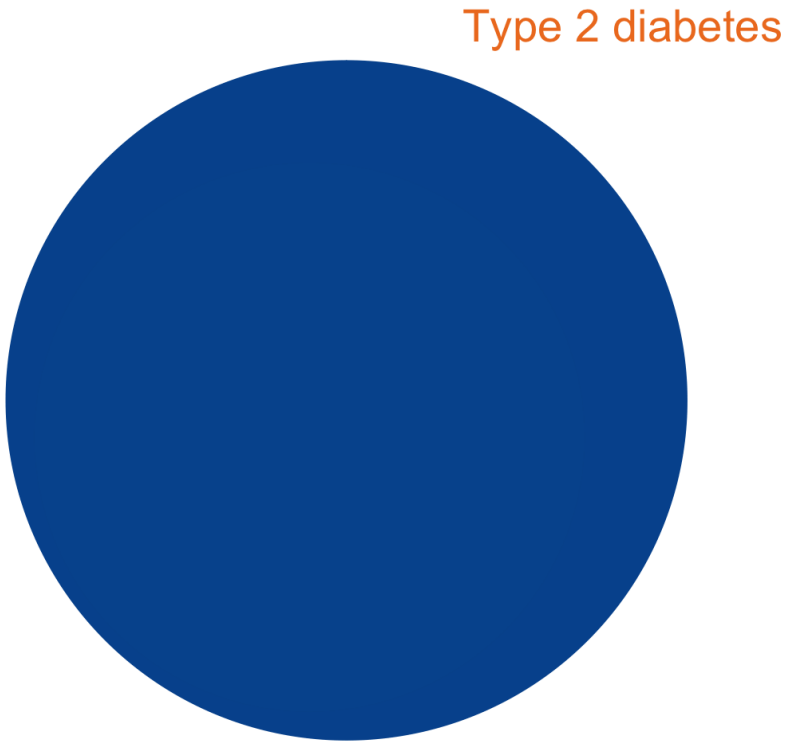
Source: Yip TC *et al. Hepatology* 2023;77:1404-1427

Obesity in Adults – A Major MASLD/MASH Risk Factor



Source: Lingvay I, Cohen RV, le Roux CV, Sumithran P. Obesity in adults. *The Lancet* 2024.
See also the new consensus statement on obesity (a move from BMI to waist circumference): Rubino *et al. Lancet Diabes and Encoc* 2025.

Type 2 Diabetes and Liver Disease



Estimates

- **65%** MASLD prevalence
- **32%** MASH
- **15%** Advanced liver fibrosis

MASLD: metabolic dysfunction-associated steatotic liver disease.

MASH: metabolic dysfunction-associated steatohepatitis.

***Source**:* En Li Cho *et al*. Global prevalence of non-alcoholic fatty liver disease in type 2 diabetes mellitus: an updated systematic review and meta-analysis. *Gut*. 2023.

Image prepared for the LIVERAIM webinar, "Tackling the silent epidemic of chronic liver disease through early diagnosis and linkage to care: The LIVERAIM project "
https://www.liveraim.eu/2024/10/29/tackling-the-silent-epidemic-of-chronic-liver-disease-through-early-diagnosis-and-link-to-care-the-liveraim-project/

American Diabetes Association 2025 MASLD Consensus Report: *Treatment Algorithm*

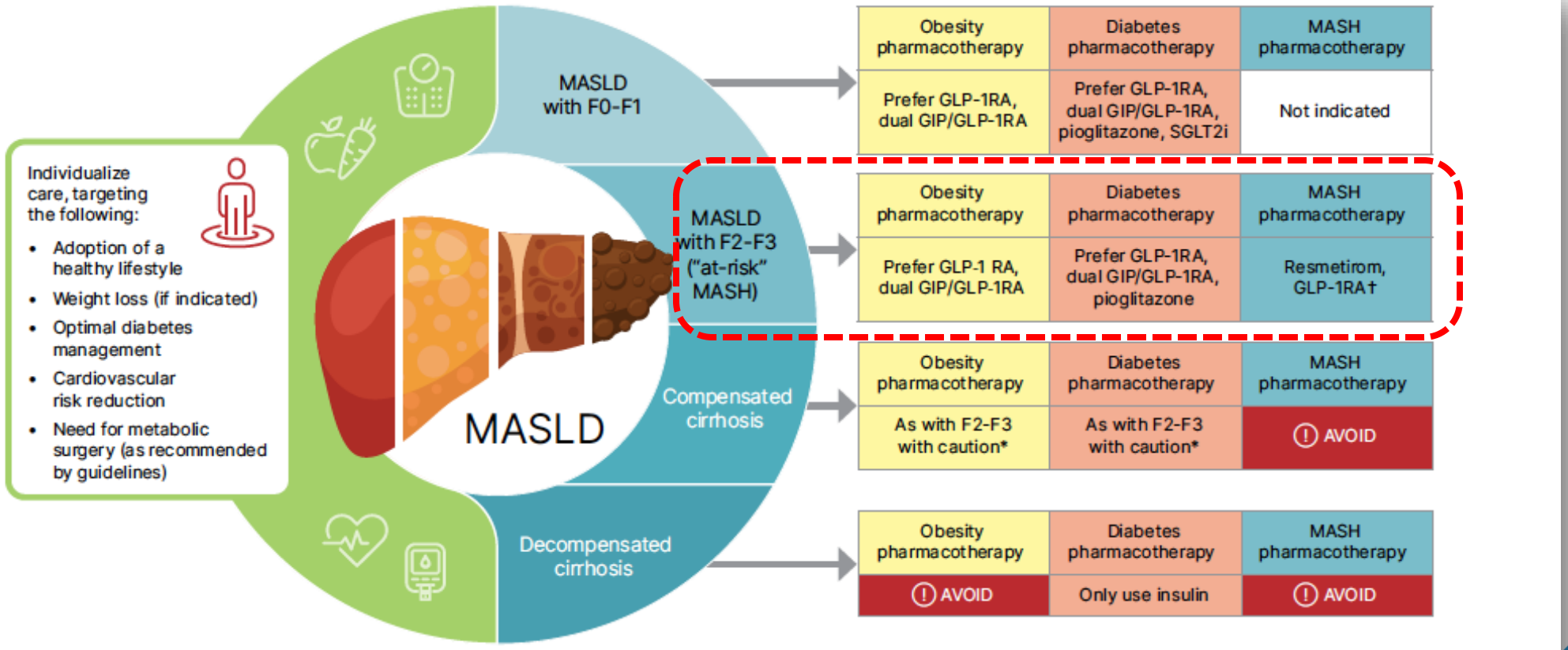


Figure 4—MASLD treatment algorithm for individuals with prediabetes or diabetes. Fibrosis stages: F0 and F1, mild or no liver fibrosis; F2, moderate fibrosis; F3, advanced fibrosis. CV, cardiovascular; SGLT2i, SGLT2 inhibitors. *Individualized care and close monitoring is needed in compensated cirrhosis given limited safety data available. †Only semaglutide among GLP-1RA has been reported to be of benefit in a phase 3 RCT with histological outcomes in MASH. Adapted from "Standards of Care of Diabetes—2025" (59).

Source: Cusi *et al.* American Diabetes Assoc. May 28, 2025; https://doi.org/10.2337/dci24-0094

The Future of MASH Treatment: Nutrition-aligned Drug Roll-out

https://doi.org/10.1038/s41591-024-02958-z

Opportunities and challenges following approval of resmetirom for MASH liver disease

Jeffrey V. Lazarus, Dana Ivancovsky Wajcman, Henry E. Mark, Zobair M. Younossi, Christopher J. Kopka, Nevin Cohen, Meena B. Bansal, Michael Betel & Paul N. Brennan

The US Food and Drug Administration (FDA) has approved the first drug, resmetirom, for metabolic dysfunction-associated steatohepatitis (MASH), but much work remains for the industry, practitioners and health systems so that this approval will benefit all patients.

Millions of people, and their doctors, have long wished for an approved pharmacological therapeutic to treat MASH (previously known as NASH). MASH represents a necroinflammatory variant of metabolic dysfunction-associated steatotic liver disease (MASLD), formerly known as non-alcoholic fatty liver disease (NAFLD)[1]. MASH is charac-

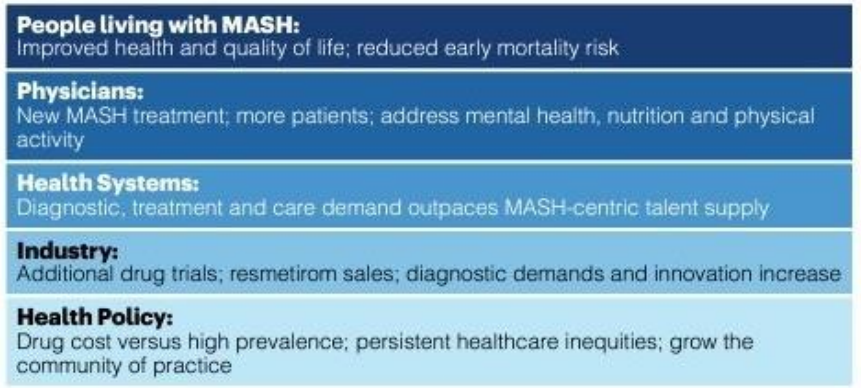


Fig. 1 | Cascading effects of the approval of resmetirom. In addition to directly affecting people living with MASH, resmetirom's approval will have implications that will influence practice, systems, industry and policy around the world.

nature medicine

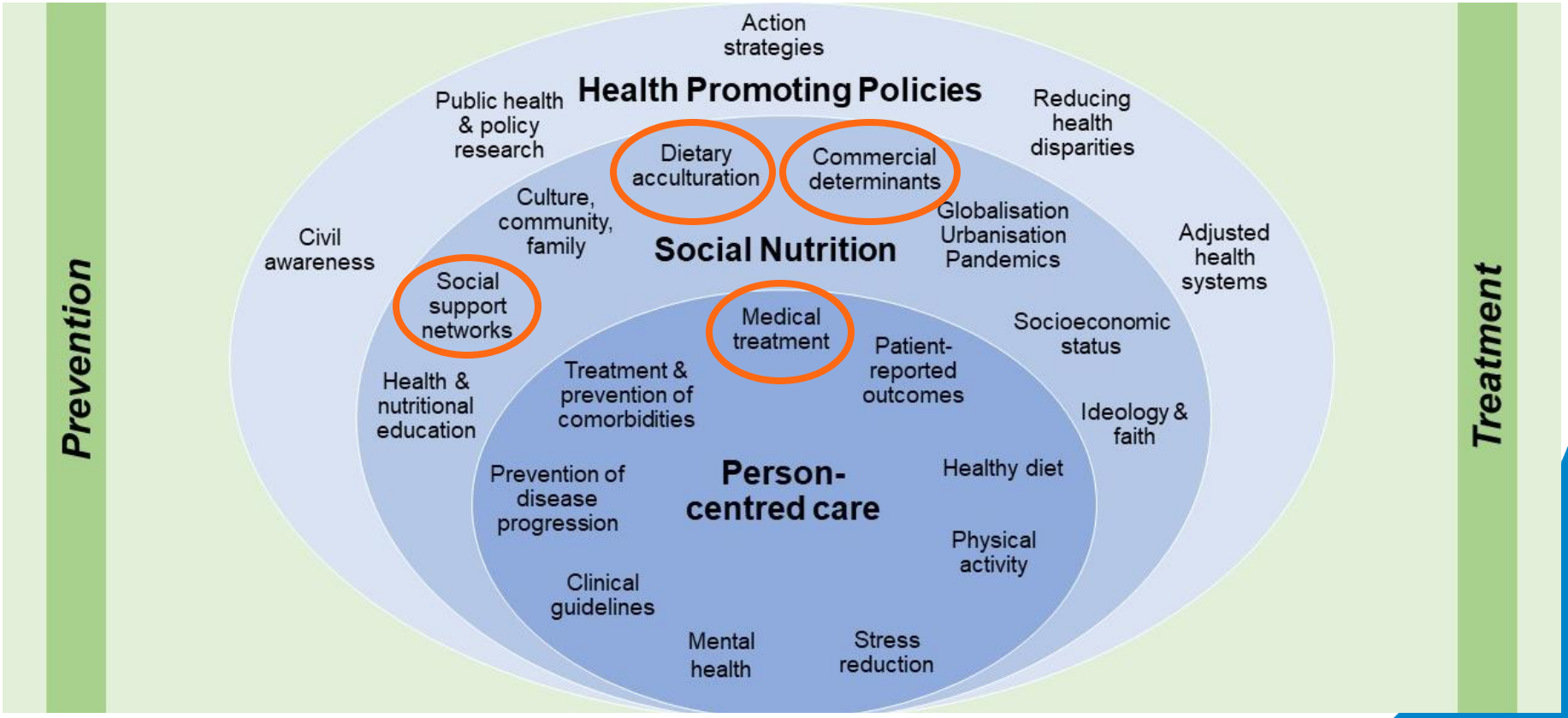
Source: Lazarus JV *et al. Naure Medicine* 2024, https://www.nature.com/articles/s41591-024-02958-z.

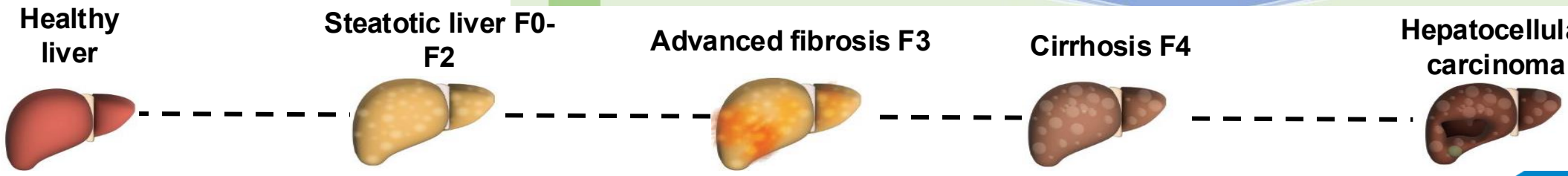
Preventive hepatology through social nutrition

Social prescribing: linking individuals with suitable non-medical resources to enhance their well-being

Social nutrition: how social factors influence:

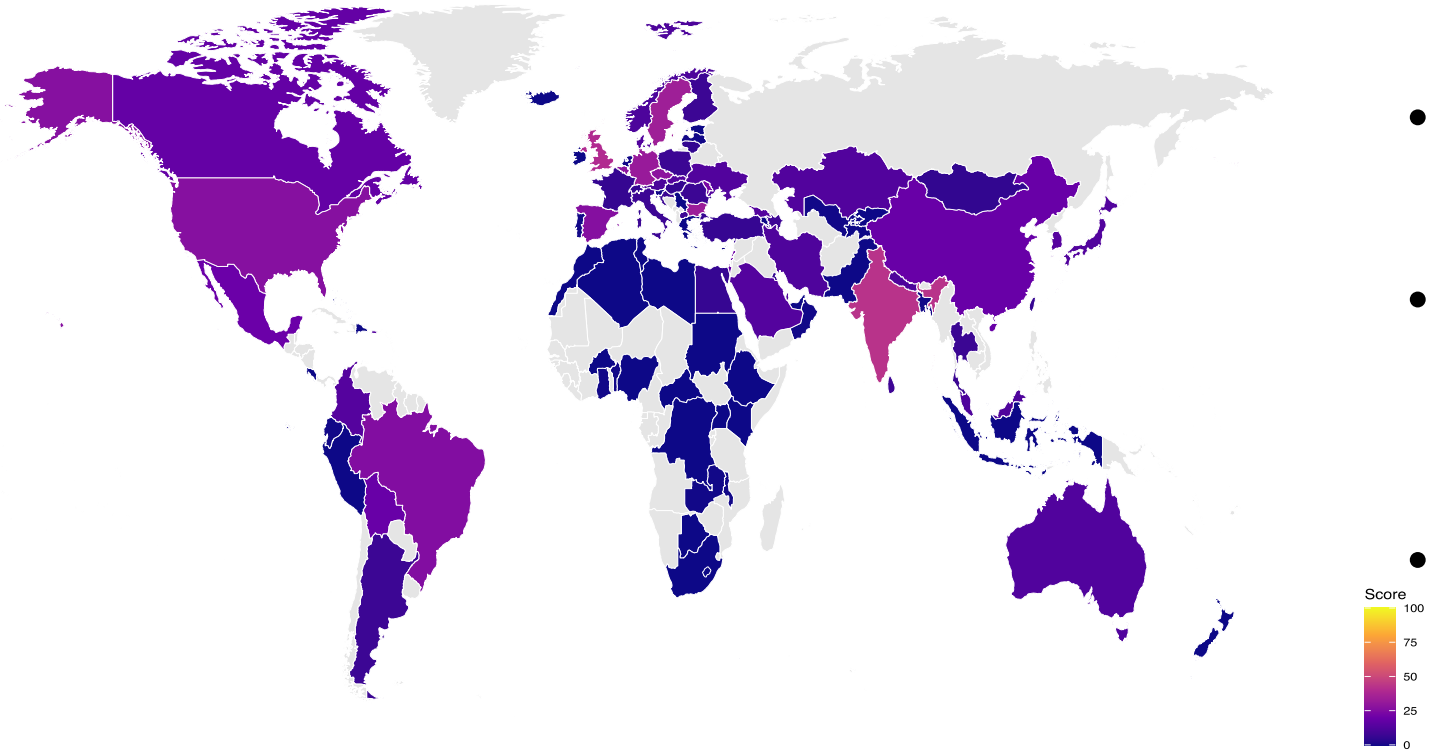
- What, when, how, and why individuals eat
- The likelihood of developing NCDs





Source: Ivancovsky Wajcman D *et al*. Integrating social nutrition principles into the treatment of steatotic liver disease. *Communications Medicine*. 2023.

Establishing a policy baseline for action and then measuring progress



EASL | JOURNAL OF HEPATOLOGY

- **None of the 102 countries was found to be well prepared to address MASLD.**
- Close to a third of countries received an overall score of zero.
- The results can assist countries in identifying priority actions to improve their MASLD preparedness.
- We can use the index to track national, regional, and global progress over time.

Source: Lazarus JV, *et al.* The global NAFLD policy review and preparedness index: Are countries ready to tackle the challenge?. *J Hepatology*. 2021;76(4):771-780.

AACE®

NCD BEST BUYS

AND OTHER EFFECTIVE INTERVENTIONS

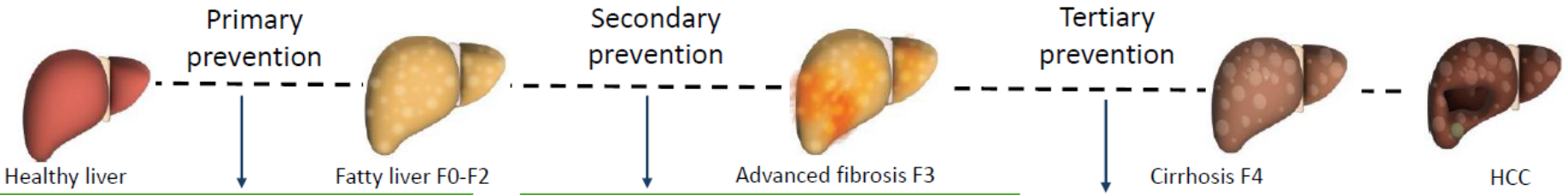
Why do we need Best Buys for MASLD and MASH?

- The **WHO NCD Best Buys** are a flagship initiative but do not explicitly address MASLD and MASH.

- We need a clear set of policy options for countries to address the growing unmet needs, from prevention and diagnostics to linkage to care, treatment and management.

Source: Lazarus, JV *et al.* Best buys for metabolic dysfunction-associated steatotic liver disease and metabolic dysfunction-associated steatohepatitis: a global Delphi study. *The Lancet GastroHep,* 2025.

The unique role of liver associations



Liver Associations

- Stress the role of primary and secondary prevention of liver diseases (e.g., HBV vaccination and viral hepatitis screening) to prevent liver cancer
- Support the inclusion of primary prevention in all clinical practice guidelines and the education of liver specialists
- Collaborate with non-governmental and community-based organizations, including patient advocates from multiple therapeutic areas, and representatives of at-risk groups to raise awareness on the prevention of advanced liver disease and liver cancer

Liver specialists

- Inform patients on liver disease and the role of lifestyle behavioral change in plan language
- Assess comorbidities, patient-reported outcomes and quality of life
- Screen for advanced liver disease
- Advise on additionally consulting other specialists (e.g., dietitians, addiction specialists, behavioral therapists, etc.)
- Inform about pharmacotherapy (if needed and indicated)
- Focus on patient-centered goals (e.g., joint agreement on treatment goals)
- Refer patients who require social assistance to relevant support services (governmental and non-governmental), in line with social prescribing principles

Liver specialists

- Assess and discuss comorbidities (e.g., obesity and diabetes)
- Inform patients on treatment and referral options according to clinical practice guidelines in plain language
- Assess patient-reported outcomes, quality of life, and mental health
- Assess progress on patient-centered treatment goals and provide support

Source: Ivancovsky-Wajcman D, Nicolas A, et al. Prioritising viral hepatitis elimination to prevent hepatocellular carcinoma: A public health approach for effective preventive hepatology. *JHEP Reports* 2025

The Healthy Livers Healthy Lives call to action in 2026

To correct the MASLD/MASH course, a blueprint for WHO action should include:

- Recognise MASLD and MASH as a single dynamic disease spectrum, so that prevention and treatment strategies cover the full continuum.
- Embed MASLD/MASH explicitly into NCD normative guidance and action plans.
- Establish epidemiological targets and indicators to monitor MASLD/MASH progress, as is already done for other major NCDs.
- Name MASLD/MASH in the implementation of WHO "best buys", including in fiscal policies, food environment reforms, the regulation of marketing of unhealthy products, front-of-pack labelling on ultraprocessed foods and sugar-sweetened beverages, and health-promoting taxation.
- Integrate MASLD/MASH into digital health, primary care, and screening strategies, as part of person-centred and equitable care across all health systems.
- Institutionalise engagement so that lived experience shapes policy from the start, instead of being an afterthought.

Our call is simple but urgent: the UN and WHO must name MASLD and MASH for what they are – a dynamic continuum of metabolic liver disease – and place them at the centre of the global NCD agenda, alongside other major NCDs.[14,15] Anything less risks condemning hundreds of millions of people to preventable disease and undermines the global pledge to reduce premature NCD deaths by 2030. The world cannot wait. The time for WHO to act is now.

In February 2026, the World Health Organization (WHO) Executive Board recommended that the 79th World Health Assembly (May 2026) adopt a landmark resolution on Steatotic Liver Disease (SLD), marking a critical step in recognizing it as a major, under-recognized non-communicable disease (NCD) affecting over 1.7 billion people. The resolution calls for global action to integrate SLD prevention, diagnosis, and care into national health strategies.

Sources: Lazarus (Global Think-tank), Pessoa (ALEH), Shawcross (EASL), Schwarz (IDF), Su (AASLD), Barquera (WOD). Name MASLD/MASH - and act on it. Simultaneously published in *Annals of Hepatology* (ALEH), *Hepatology Communications* (AASLD), *JHEP Reports* (EASL) 2025

Global position statement supporting a World Health Assembly resolution on steatotic liver disease

Comment

https://doi.org/10.1038/s41575-026-01201-z

Global position statement supporting a World Health Assembly resolution on steatotic liver disease

Jeffrey V. Lazarus, Bruno Halpern, Peter E. H. Schwarz, Delfina Boudou, Harriette G. C. Van Spall, Veronica Miller & Ajay Duseja

Check for updates

Steatotic liver disease has a high human and economic burden, yet remains absent from WHO normative guidance, action plans and strategies. This position statement — endorsed by patient, national and international organizations from around the world — calls on the World Health Assembly to pass the first ever steatotic liver disease resolution.

Steatotic liver disease (SLD), which affects an estimated 1.7 billion people[1,2], remains under-recognized within the global non-communicable disease (NCD) architecture despite its high human and economic burden, a widely-disseminated global action agenda and calls to action from medical associations[3–5]. The proposed 79th World Health Assembly resolution[5,6] on SLD offers WHO member states a distinct opportunity to align scientific evidence with institutional policy by formally embedding SLD within the global NCD and universal health coverage (UHC) agendas. We, the undersigned, alongside other experts from around the world as well as 55 international, national and patient organizations and societies (Fig. 1 and Supplementary Table 1), strongly support the adoption of the resolution, which recognizes the global burden of SLD and its links to other major metabolic conditions, including type 2 diabetes, obesity, chronic kidney disease and cardiovascular disease. We welcome the resolution's call to integrate SLD into existing NCD frameworks, policies, primary healthcare and UHC packages; to strengthen prevention, early detection, and monitoring; and to enhance global, regional and national collaboration with relevant actors.

sign of systemic metabolic imbalance. It therefore foreshadows the continuum of metabolic dysfunction, which links obesity, insulin resistance, cardiovascular disease and liver cancer within a shared biological and policy landscape[1,8,9].

Modelling studies project a marked increase in advanced liver disease and liver cancer if current trends continue. Yet global and national policy frameworks have not kept pace. The proposed resolution can help close this gap by integrating SLD into existing NCD and metabolic health strategies, action plans and normative guidance[10].

Healthcare expenditures associated with advanced liver disease, together with productivity losses from disability and premature death, impose growing burdens on health systems and national economies[1]. As these factors disproportionately affect populations with limited access to preventive services and health-promoting environments, they exacerbate existing health inequities[1] in low-, middle- and high-income settings alike. Countries would benefit from strengthened surveillance and integration of SLD into national and international monitoring systems, as the resolution emphasizes[1].

An omission in the NCD architecture

Despite its scale and shared risk factors — including unhealthy diets, increased body weight, physical inactivity, tobacco use and alcohol consumption — with other NCDs, SLD remains largely absent from global NCD strategies and monitoring frameworks, UHC benefit packages, the WHO NCD 'best buys' and the United Nations' Sustainable Development Goals (SDGs)[11]. This contributes to late diagnosis, when SLD has already progressed to advanced fibrosis, cirrhosis or liver cancer[1].

The challenge is no longer a lack of scientific evidence. Around the world, and especially in many low- and middle-income countries, where diagnostic capacity and specialist referral pathways remain constrained[1], the resolution can act as a catalyst for institutional into-

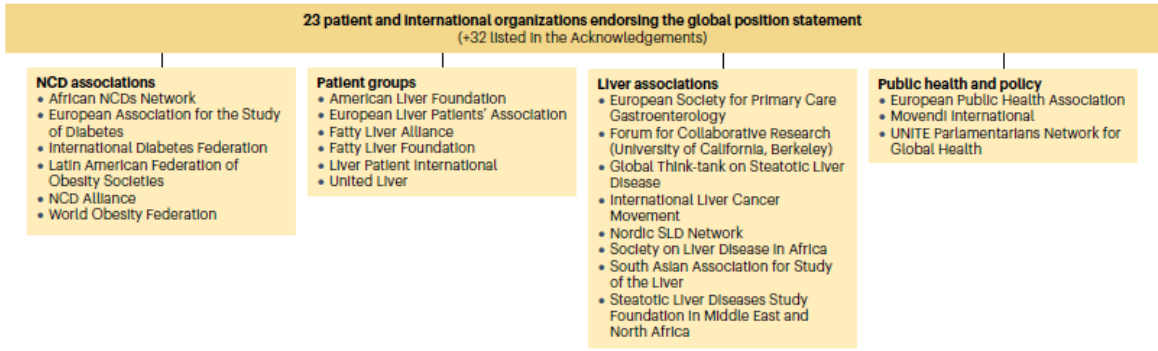


Fig. 1 | Organizations endorsing the global position statement in support of the World Health Assembly resolution on steatotic liver disease. Patients and international organizations endorsing the position statement in support of the World Health Assembly resolution on steatotic liver disease (SLD). NCD, non-communicable disease.

Source: Lazarus *et al.* Global position statement supporting a World Health Assembly resolution on steatotic liver disease. *NRGH* 2026.

A 2026 call to action from the Global Think-tank on Steatotic Liver Disease

Four interrelated levers:

- **Recognition** is an essential foundation for action
- **Collaboration** is the key to unlocking a complex challenge
- **Implementation** requires scaling pre-existing examples of positive deviance
- **Innovation** is needed to accelerate the pace of discovery

BOX 1

Priorities from the Global Think-tank on Steatotic Liver Disease and key milestones to 2027

Future-proofing liver health using person-centred preventive strategies

- Develop a MASH compendium that outlines the diverse drivers of disease and prevention actions needed across social, commercial and structural determinants, along with common comorbidities
- Support and expand awareness campaigns among the public (particularly in high-risk groups) and a broad range of healthcare providers

Doubling MASH diagnoses by 2027 with an non-invasive test revolution

- Develop real-world case studies that document where non-invasive tests are being successfully scaled in primary care settings and where challenges remain
- Create knowledge exchanges on lessons and insights around non-invasive test scaling

Showing the power of collaboration with multidisciplinary teams in early diagnosis and risk stratification

- Conduct a review of MASLD and MASH care models with an emphasis on non-invasive tests, high-risk groups and expanding the community of practice, updating the 2021 publication led by the think-tank's precursor
- Identify MASLD and MASH centres of excellence that can share best practices with other health systems that are working to implement comprehensive models of care

Navigating treatments through strategies for an evolving landscape

- Advance the evidence base for nutrition-aligned drug rollout to understand how best to optimize health outcomes
- Outline the opportunities and potential pitfalls of the evolving treatment landscape through to the end of 2027, with a focus on achieving equitable access

A digital transformation in SLD care through big data, AI and personalized solutions for better outcomes

- Collate and analyse digital innovations that support SLD diagnosis, treatment and care
- Harness individual and population-level data to better identify those living with, or at risk of, SLD
- Collaborate with closely related therapeutic areas to accelerate the use of AI in active case finding for SLD

A deep dive into SLD policy and regulatory processes

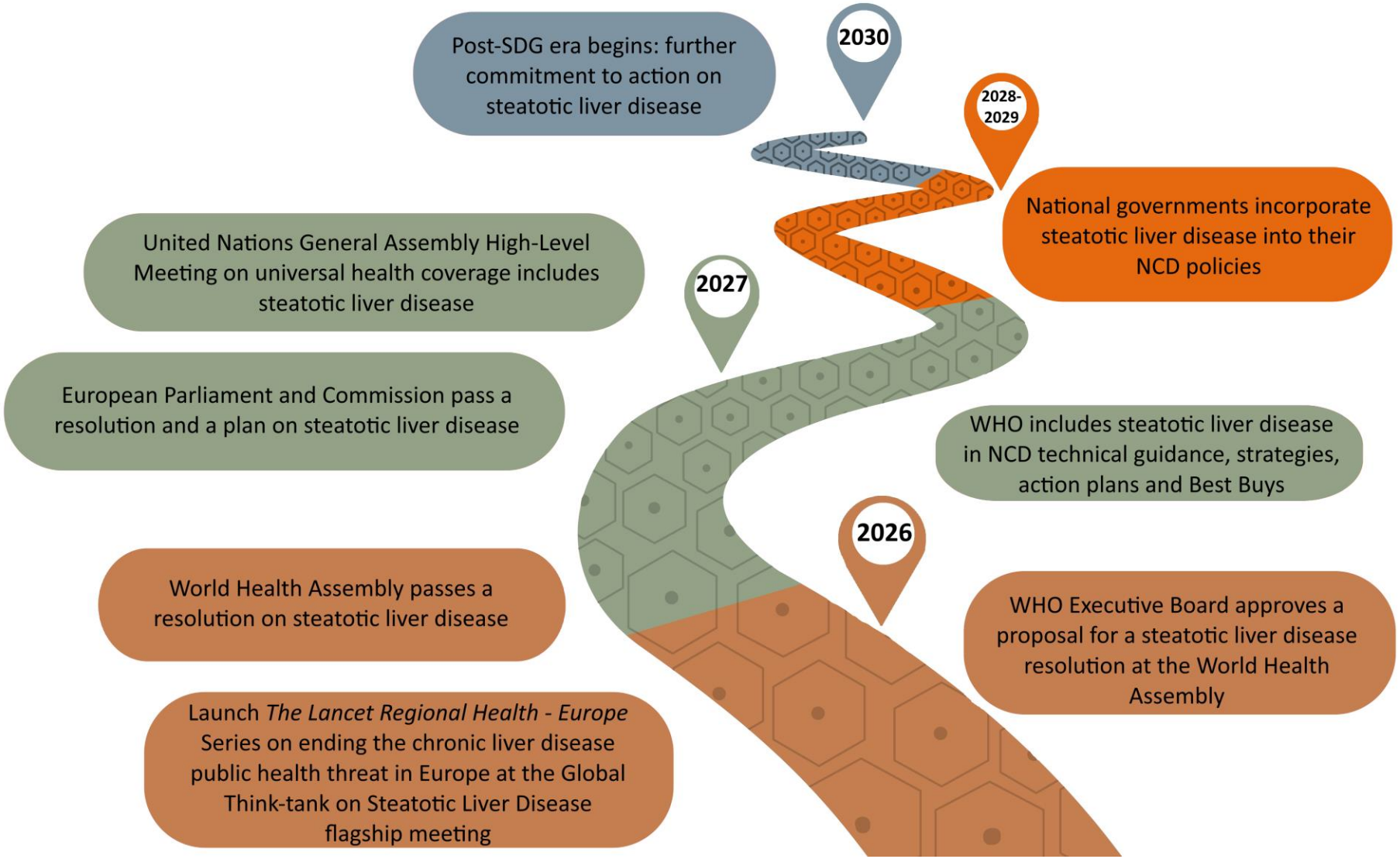
- Develop an evidence-based list of 'best buy' and 'quick buy' interventions for MASLD and MASH that spans prevention, early diagnosis, treatment and care
- Engage WHO Member States to support a proposal for a World Health Assembly resolution on liver health in 2027, recognizing the public health threat and calling for their full integration into WHO NCD action plans, strategies, programmes and normative work
- Engage with the universal health coverage community and UN Member States to have MASLD and MASH recognized in the UNGA Political Declaration of the 2027 High-Level Meeting on Universal Health Coverage

Urban solutions to tackle SLD in cities

- Expand the MASH Cities programme across the USA and Europe to build a network of cities that are supported in taking concrete action on MASLD and MASH
- Monitor and fast-track progress towards global NCD goals at the city level

Source: A call to action from the Global Think-tank on Steatotic Liver Disease. *Nature Health* 2026

The policy roadmap 2026-2030



Source: Lazarus JV & White TM, et al. Assessing Europe's policy readiness to confront the MASLD/MASH public health threat. *The Lancet Regional Health-Europe* Series on Chronic Liver Disease. In press, 26 May 2026.

Where do we go from here?

- We have a strong body of work from which to build: now is the time to accelerate our efforts!
- The growing burden around the world requires policy changes that address not only social determinants, but also structural and commercial determinants along with primary and secondary prevention + treatment and care.
- We need to grow the "liver" community to engage policy-makers, policy influencers, and people with lived experience as stewards of change.
- We also need to think globally, and bring a common voice for more awareness and action on steatotic liver disease, together with WHO and the UN.

🎯 **Grow the global community of practice for steatotic liver disease.**

🎯 **Bring a united voice to global conversations.**

🎯 **Support a 2026 World Health Assembly resolution on SLD**

AACE®

Acknowledgements

Contact: Jeffrey.Lazarus@ISGlobal.org

Collaborations and initiatives of the ISGlobal Public Health Liver Group
https://www.isglobal.org/en/public-health-liver-group

Global Think-tank on Steatotic Liver Disease

VIRAL HEPATITIS COMSAVAC
Multi-Country Community Screening, Vaccination, and Care

AIM LIVER

HBV COMSAVA

CARe PAthway

MASH CITIES

Hepatitis C Free Balears

NOhep
Hepatitis C micro-elimination

The META Trial

HEP-HOP
Health Equity Program: Hepatitis Outreach for Migrant Populations

GLOBAL METABOLIC HEALTH
Roundtable Series

CUNY SPH GRADUATE SCHOOL OF PUBLIC HEALTH & HEALTH POLICY

ISGlobal Barcelona Institute for Global Health

PH Liver Group

ALIANZA PARA LA ELIMINACIÓN DE LAS HEPATITIS VÍRICAS EN ESPAÑA

EASL The Home of Hepatology

WORLD LIVER DAY 19 April

HEALTHY LIVERS HEALTHY LIVES

NOBODY LEFT OUTSIDE
Improving healthcare access for marginalised people

AACE