

Introduction

Metabolic Dysfunction-Associated Steatotic Liver Disease(MASLD) Burden

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- MASLD is a spectrum of liver diseases driven by metabolic risk factors, encompassing simple steatosis to cirrhosis and hepatocellular carcinoma.
- Definition :

Metabolic risk factor	Adult criteria
Overweight or Obesity	Body mass index ≥25 kg/m^2 (≥23 kg/m^2 in people of Asian ethnicity) Waist circumference • ≥94 cm in men and ≥80 cm in women (Europeans) • ≥90 cm in men and ≥80 cm in women (South Asians and Chinese) • ≥85 cm in men and ≥90 cm in women (Japanese)
Dysglycaemia or type 2 diabetes	Prediabetes: HbA_{1c} 39-47 mmol/mol (5.7-6.4%) or fasting plasma glucose 5.6-6.9 mmol/L (100-125 mg/dl) or 2-h plasma glucose during OGTT 7.8-11 mmol/L (140-199 mg/dl) *or* Type 2 diabetes: HbA_{1c} ≥48 mmol/mol (≥6.5%) or fasting plasma glucose ≥7.0 mmol/L (≥126 mg/dl) or 2-h plasma glucose during OGTT ≥11.1 mmol/L (≥200 mg/dl) *or* Treatment for type 2 diabetes
Plasma triglycerides	≥1.7 mmol/L (≥150 mg/dl) *or* lipid-lowering treatment
HDL-cholesterol	≤1.0 mmol/L (≤39 mg/dl) in men and ≤1.3 mmol/L (≤50 mg/dl) in women *or* lipid-lowering treatment
Blood pressure	≥130/85 mmHg *or* treatment for hypertension

HbA1c, glycated haemoglobin; HDL, high-density lipoprotein; OGTT, oral glucose tolerance test.

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Global and Regional Epidemiology

- Approx. 30–38% of the global adult population has MASLD, with significant rises in recent years.
- Some regions, such as Latin America and the Middle East, report rates >40%.
- Trend: Prevalence is projected to exceed 55% of adults by 2040 and already surpasses previous forecasts in high-burden regions.
- Case Numbers: Estimated 1.27 billion people globally affected in 2021

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- MASLD is now the most common chronic liver disease worldwide, surpassing viral hepatitis and alcohol-related disease as a leading cause of liver morbidity.

- MASLD/MASH projected to become the leading indication for liver transplantation in many countries by mid-century.

- Mortality: MASLD accounted for ~138,000 deaths and 3.67 million DALYs globally in 2021—a steady increase since 1990.

- Economic Burden: Substantial healthcare costs due to hospitalizations, complications, and the chronic nature of disease; health systems face rising demand for liver care.

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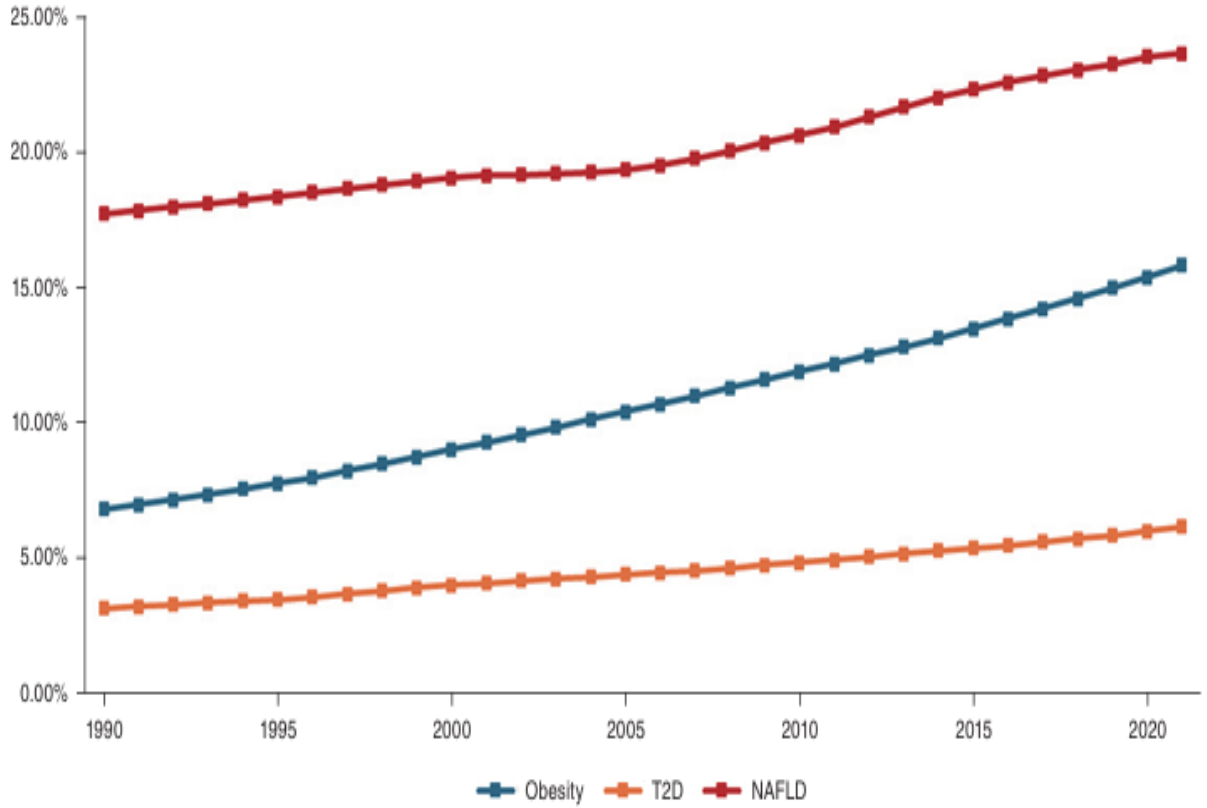

T2D and NAFLD data obtained from Global Burden of Disease 2020
Obesity data obtained from NCD-RISKC (noncommunicable disease risk factor collaboration)

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