

THE LONGITUDINAL AGEING STUDY OF INDIA (LASI)

LASI¹ is India's first and globally, the largest in Health and Retirement Studies. LASI Wave I was conducted in 2017-18 with a sample of 72,250 adults (30,569 men and 41,681 women) aged ≥ 45 years and their spouses (irrespective of age) across all states and union territories (UTs) in India (excluding Sikkim). The Wave-1 India Report was released on 6th January 2021. It provides vital information on a number of health, economic, and social determinants and consequences of population ageing in India.

In this factsheet, we have collated key findings and undertaken a secondary analysis of the burden estimates, diagnosis and control patterns provided for hypertension (HTN) and Pre-Hypertension (Pre-HTN) in the LASI Wave-1 India report. The factsheet is for use by policy makers and program managers for evidence-based decision making.

PREVALENCE OF HIGH BLOOD PRESSURE

- **At the time of the survey**, 31.7 percent men and 29.2 percent women were found to have high blood pressure (BP) i.e. systolic BP (SBP) >140 mmHg and/or diastolic BP (DBP) >90 mm Hg.
- High BP was more prevalent among:
 - Those aged ≥ 60 years as compared to those aged 45-59 years.
 - Women aged ≥ 60 years as compared to men of the same age group.
- Between age categories ≥ 60 years and 45-59 years, there was a gap of about 15 percentage points (38.1 percent versus 22.8 percent) among women as compared to about 5 percentage points (33.9 percent versus 29.2 percent) in men.

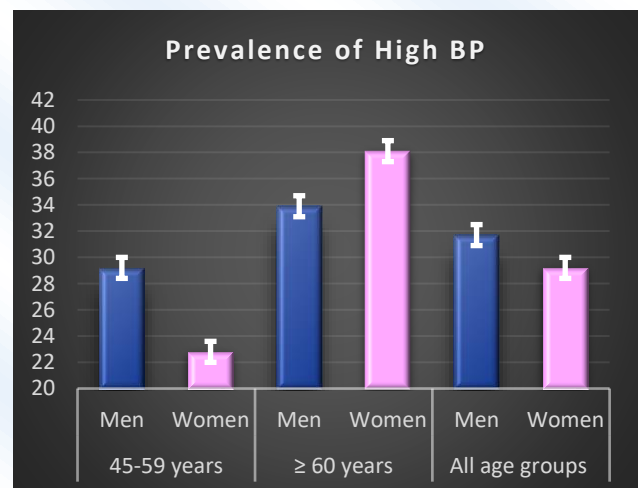


Figure 1: Prevalence of high blood pressure according to gender and age categories

PREVALENCE OF HYPERTENSION AND PRE-HYPERTENSION ACROSS INDIA

- **Overall:** Prevalence of HTN in adults aged ≥ 45 years¹ was 44.9 percent. About 40 percent individuals (men: 40.5 percent; women: 38.8 percent) had pre-HTN.
- **According to age categories:** Prevalence of HTN was more among the elderly (≥ 60 years; 53.5%) as compared to those aged 45-59 years (37.6 percent) – a difference of about 16 percentage points.
- **According to gender:** Overall, women had a higher prevalence of HTN (45.5 percent) as compared to men (43.9 percent). Even in the ≥ 60 year age category, women had a higher prevalence of HTN (57.7 percent) as compared to men (48.8 percent). Between age categories ≥ 60 years and 45-59 years, there is a gap of about 21 percentage points (37.0 percent versus 57.7 percent) for women as compared to about 10 percentage points (38.6 percent versus 48.8 percent) in men. Men have higher prevalence of pre-HTN across age-categories.

¹ (LASI includes spouses in this denominator – some of whom may be less than 45 years of age. Also, LASI includes all individuals who self-report to have been diagnosed by a health care worker to have HTN even if they were not under any anti-hypertensive medication and had a normal blood pressure at the time of survey.)

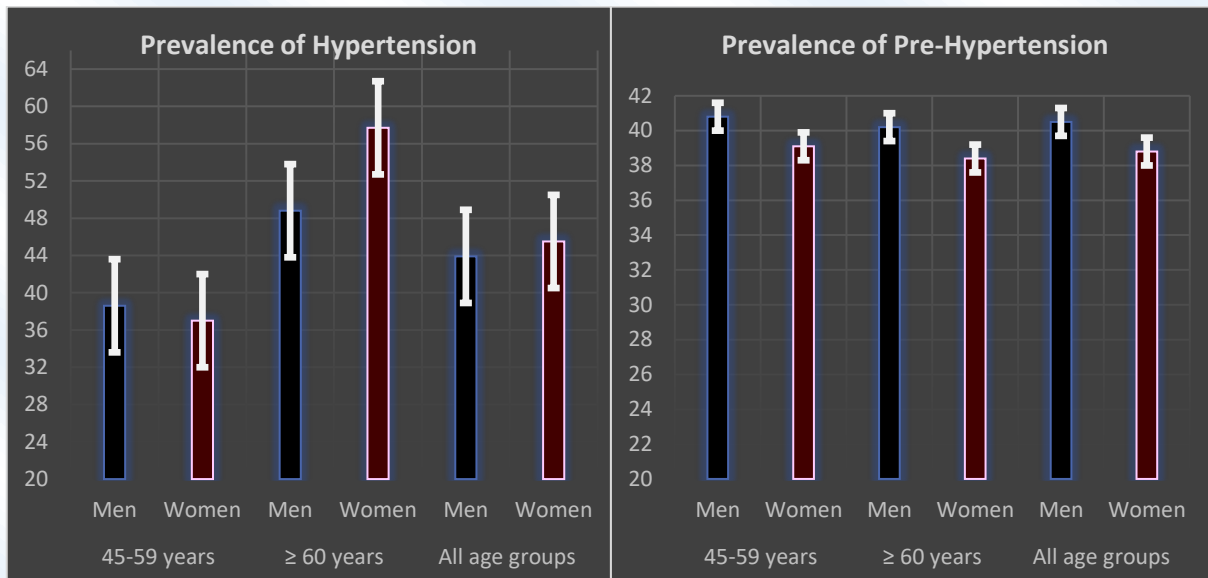


Fig. 2 Prevalence of hypertension and pre-hypertension according to gender and age categories

- **According to wealth quintile:** While pre-HTN is similarly prevalent across wealth indices, HTN has higher prevalence in the richest wealth quintile.

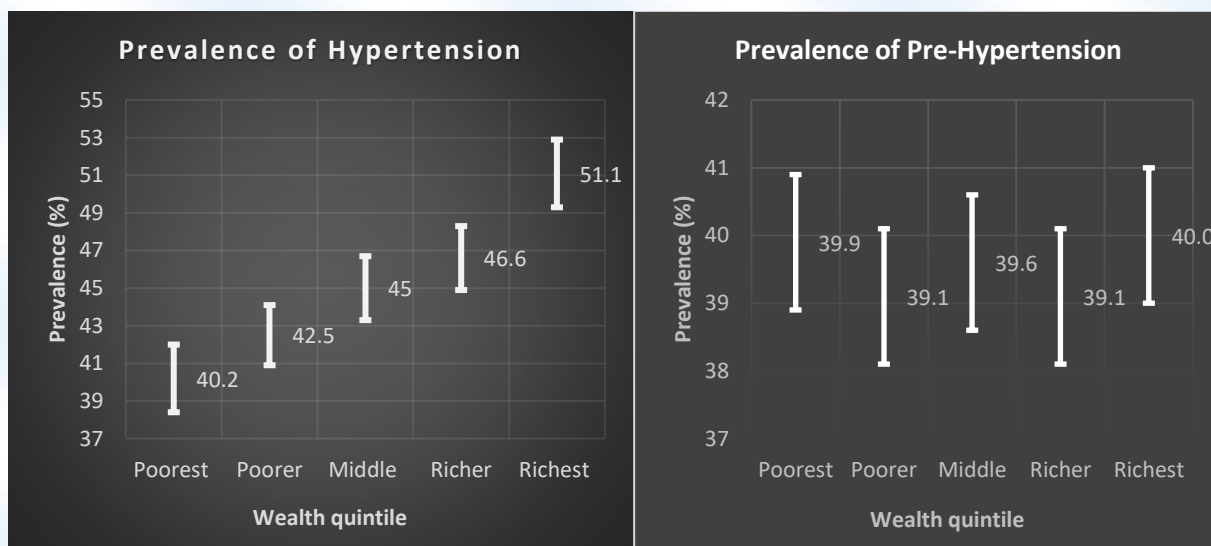


Fig. 3 Prevalence of hypertension and pre-hypertension according to wealth quintile

- **According to geography:**
 - States and union territories with a higher prevalence of HTN, were from a variety of geographies e.g. hilly (Himachal Pradesh – 54.1 percent, Nagaland-43.2 percent), plains (Punjab-60.1 percent), Coastal (Kerala-44.1 percent, Lakshadweep-51.6 percent) and socio-cultural contexts.
 - As compared to Empowered Action Group (EAG) states, most non-EAG states have a higher prevalence of HTN and pre-HTN. In most non-EAG states the prevalence of HTN was more than that of pre-HTN. In contrast, in most EAG states, the prevalence of HTN and pre-HTN was similar. Thus, the states and UTs in India are along a spectrum of epidemiological transition for HTN.

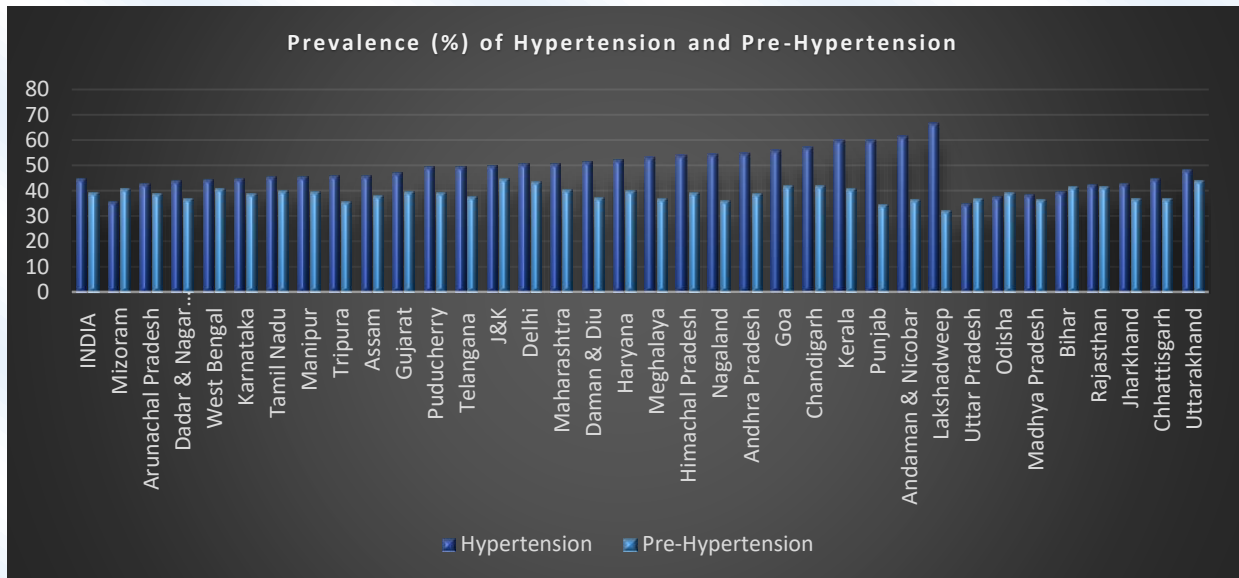


Fig. 4 Prevalence of hypertension and pre-hypertension in States & Union Territories in India

THE HYPERTENSION CARE CASCADE

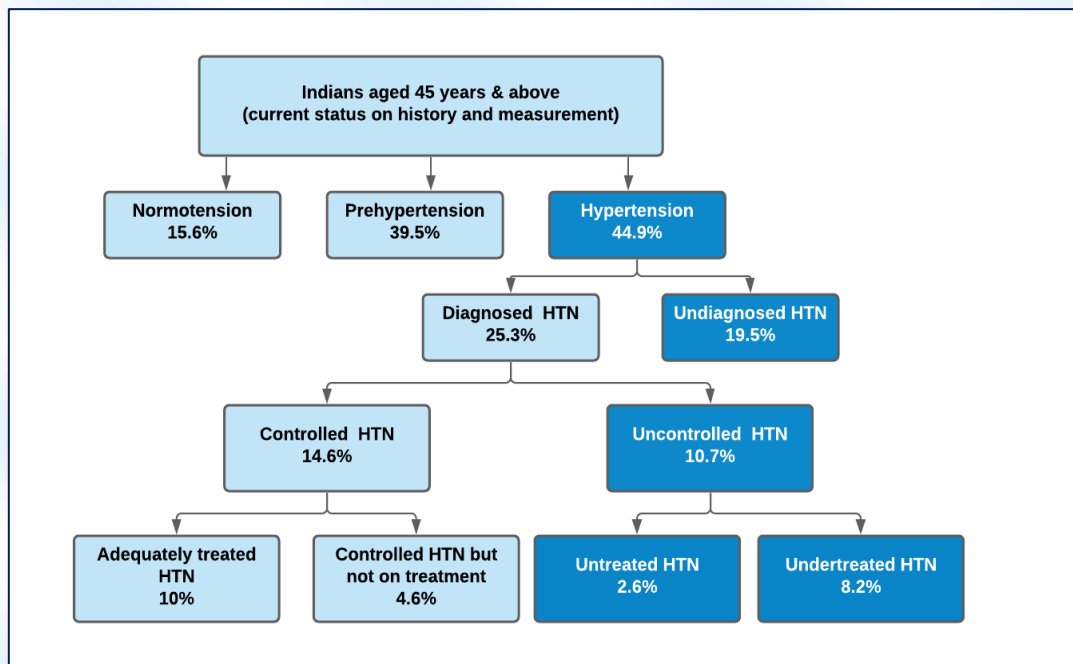
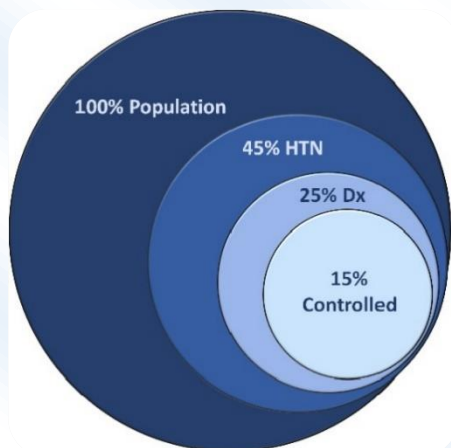


Fig. 5 Situation of hypertension and pre-hypertension in Indians aged 45 years and above



For every 100 Indians aged 45 years or above,

- 40 are pre-hypertensive (*Impending burden*)
- 45 have hypertension (*Current burden*)
 - 30 have high BP at any point of time. (*Treatment gap*)
 - 20 are undiagnosed (*Diagnostic gap*)
 - Of the 25 diagnosed, only 15 have their BP under control (*Treatment gap despite having a diagnosis*)
 - Of the 15 with controlled HTN, 5 had BP under control without any anti-hypertensive medication at least in the short term (i.e. over the past fortnight). (*Potential scope of behavior change management and wellness interventions*)

Fig. 6 The Hypertension Care Cascade (population aged ≥ 45 years)

HTN: People with hypertension; Dx: People diagnosed with hypertension

Those who sought care for high BP (hypertension), constituted.

- Only 8.5 percent of all out-patient older adults (≥ 45 years) during one month prior to survey (Urban – 7.3 percent, Rural – 11.4 percent)
- Only 5.1 percent of all hospitalizations among ≥ 45 years over one year preceding the survey (Urban – 12.5 percent, Rural – 4.6 percent)
- Only 1 in 5 adults had insurance coverage

SUMMARY

- The prevalence of HTN and pre-HTN is high among Indians aged 45 years and more, across strata. A huge proportion of individuals with HTN remain undiagnosed and if diagnosed, have uncontrolled hypertension, possibly due to healthcare access related challenges.

WAY FORWARD: POTENTIAL AREAS OF FOCUS

- **Strengthen treatment services at the primary level:** Challenges to access quality care must be identified and addressed through standardized primary care protocols, capacity building of health care providers and innovative drug delivery strategies. For newly diagnosed patients, initial treatment titration may require repeated and frequent contact with the health system which requires adequate patient education, counselling and mobilization.
- **Strengthen systems for drug procurement and supply:** Drug provisions for the same should be made through adequate demand forecasting, timely drug indenting, procurement, distribution to health care facilities and dispensing to patients.
- **Plan for extended duration prescription and differentiated service delivery:** Once the patient's BP is under control on treatment, extended prescriptions (for 2-3 months) may be provided with due monitoring to ensure treatment compliance.
- **Decentralization of care to Health & Wellness centres (HWCs):** Drug distribution and care provisioning for HTN should be decentralized to the HWCs. HWCs also play an important role in population-based screening for HTN, community mobilization for care-seeking, and follow-up for treatment adherence with the help of frontline workers and community-based organizations.
- **Intensify Information Education and Communication (IEC) and Social and behaviour change communication (SBCC) initiatives:** Expansion of population-based screening for early identification of patients with HTN and strengthening linkages to treatment must be complemented with Information Education and Communication (IEC) and social and behaviour change communication (SBCC) initiatives for increased community awareness, patient follow-up, treatment adherence and control.
- **Improve data-informed decision-making at all levels:** Create frameworks for collection of data on HTN care-seeking patterns at sub-district levels, so that the same could be used for informed program decision-making.
- **Leverage technology:** Telehealth services such as *e-Sanjeevani* can help ensure continued care. Mobile-based applications e.g., Simple app used by India Hypertension Control Initiative can be helpful in program monitoring and patient management and follow-up.
- **Expand universal health coverage:** Long-term care and management of complications will require higher coverage of health insurance. For those covered, adequacy of the insurance cover must be ensured.

DEFINITIONS

- **High blood pressure:** refers to those with SBP ≥ 140 mmHg and/or DBP ≥ 90 mmHg upon measurement during household visit for the LASI Wave I survey.
- **Normotension:** Measured systolic blood pressure (SBP) < 120 mmHg and diastolic blood pressure (DBP) < 80 mmHg, and never diagnosed with hypertension
- **Pre-hypertension (Pre-HTN):** Refers to SBP of 120-139 mmHg and/or DBP of 80-89 mmHg.
- **Hypertension:** Those ever diagnosed (self-reported) with HTN by a health worker / undiagnosed with HTN before but whose measured SBP was ≥ 140 mmHg or DBP ≥ 90 mmHg at the time of survey, or both. We computed this as 100 minus estimates of 'no hypertension' from the LASI datasets.
 - **Undiagnosed hypertension:** refers to those undiagnosed by a health professional but whose measured SBP was ≥ 140 mmHg or DBP ≥ 90 mmHg or both
 - **Diagnosed hypertension:**
 - **Uncontrolled hypertension:** refers to those diagnosed with hypertension by a health professional and whose measured SBP was ≥ 140 mmHg and/or DBP ≥ 90 mmHg
 - **Untreated hypertension:** refers to those who reported that they had been diagnosed with hypertension by a health professional and currently have hypertension but are not receiving treatment.
 - **Under-treated hypertension:** refers to those who reported that they have been diagnosed with hypertension by a health professional and are receiving treatment, but currently have hypertension (measured).
 - **Controlled hypertension:** refers to those diagnosed to have hypertension by a health professional but whose SBP was < 140 mmHg & DBP was < 90 mmHg at the time of the LASI Phase I Survey.
 - **Adequately treated hypertension:** refers to those with controlled hypertension and currently on anti-hypertensive medication
 - **Controlled hypertension but not on treatment:** refers to those with controlled hypertension but not on any medication for hypertension.

ABBREVIATIONS

- BP: Blood Pressure
- DBP: Diastolic Blood Pressure
- EAG: Empowered Action Group
- HTN: Hypertension
- HWC: Health and Wellness Centre
- Pre-HTN: Pre-Hypertension
- SBP: Systolic Blood Pressure

DATA SOURCE

1. International Institute for Population Sciences (IIPS), NPHCE, MoHFW, Harvard T. H. Chan School of Public Health (HSPH) and the University of Southern California (USC) 2020. Longitudinal Ageing Study in India (LASI) Wave 1, 2017-18, India Report, International Institute for Population Sciences, Mumbai

SUGGESTED CITATION

Kavita R, Ritika M, Anjali C, Shikha N, Shamma A, A Kumar, Mohapatra A, Kansal S. Situational Analysis of Hypertension and Pre-hypertension in India among adults aged 45 years & above Factsheet (LASI Wave 1 Report 2021) available at <https://thegridcouncil.org/reports>.