

Demand for Grants 2018-19 Analysis

Health and Family Welfare

The Ministry of Health and Family Welfare (MoHFW) has two departments: (i) the Department of Health and Family Welfare, and (ii) the Department of Health Research.

The Department of Health and Family Welfare is responsible for functions including (i) implementing health schemes, and (ii) regulating medical education and training. The Department of Health Research is broadly responsible for conducting medical research.

This note analyses the financial allocation trends and key issues concerning the health sector.

Overview of finances

In 2018-19, the MoHFW received an allocation of Rs 54,600 crore. This allocation is an increase of 2% over the revised estimates of 2017-18 (Rs 53,294 crore).¹

Under the Ministry, the Department of Health and Family Welfare accounts for 97% of the allocation, at Rs 52,800 crore. This is followed by the Department of Health Research (3%) at Rs 1,800 crore. Table 1 provides details on the two departments under the MoHFW.

Table 1: Budget allocations for the MoHFW (in Rs crore)

Item	Actuals 2016-17	RE 2017-18	BE 2018-19	% Change (RE to BE)
Health & Family Welfare	37,671	51,551	52,800	2%
Health Research	1,324	1,743	1,800	3%
Total	38,995	53,294	54,600	2%

Note: BE – Budget Estimate; RE – Revised Estimates.

Source: Demand Nos. 42 & 43, Ministry of Health and Family Welfare, Union Budget 2018-19, PRS.

The revised estimate in 2017-18 for the Department of Health and Family Welfare overshot the budget estimate of that year by Rs 4,198 crore. Similarly, the Department of Health Research also overshot the budget estimate by Rs 243 crore.

Table 2 contains the split in the allocation under the MoHFW for the year 2018-19.

Table 2: Top expenditure heads for the MoHFW (2018-19) (in %)

Expenditure head	Allocation (%)
National Health Mission	55%
Autonomous Bodies	13%
Pradhan Mantri Swasthya Suraksha Yojana	7%
National AIDS and STD Control Programme	4%
Rashtriya Swasthya Bima Yojna	4%
Family Welfare Schemes	1%
Others	16%
Total	100%

Source: Demand Nos. 42 & 43, Ministry of Health and Family Welfare, Union Budget 2018-19, PRS.

Note: Autonomous Bodies include the All India Institute of Medical Science and Post Graduate Institute of Medical Education and Research, Chandigarh.

Key allocation trends are as follows (see Table 3):

- The National Health Mission (NHM) received the highest allocation at Rs 30,130 crore and constitutes 55% of the total ministry allocation. The allocation is a 2% decrease over the revised estimates of 2017-18. Under the NHM, the rural component, i.e., the National Rural Health Mission (NRHM) has been allocated Rs 24,280 crore, a 5% decrease over the revised estimates of 2017-18. The allocation for National Urban Health Mission (NUHM) has increased by 34% at Rs 875 crore. Note that the NUHM under NHM constitutes 2.9% of its allocation for 2018-19.
- Rashtriya Swasthya Bima Yojna has seen the biggest increase at 325% (Rs 2,000 crore) over the revised estimates of 2017-18.
- Higher allocation has been made for Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) at Rs 3,825 crore (20% increase). It focusses on correcting regional imbalances in the availability of affordable and reliable tertiary healthcare services.
- Family Welfare Schemes and the National AIDS and STD Control Programme have seen a decrease of 2% and 3% respectively from the revised estimates of 2017-18. Note that both these schemes spent more than their budget estimates in 2017-18.
- Allocation to autonomous institutes (13%) like the AIIMS saw a decrease of 1% at Rs 6,900 crore from the revised estimates of 2017-18.

Table 3: Allocation to major expenditure heads under the MoHFW (in Rs crore)

Major Heads	Actuals 2016-17	RE 2017-18	BE 2018-19	% Change (RE to BE)
NHM (total)	22,454	30,802	30,130	-2%
-NRHM	19,826	25,459	24,280	-5%
-NUHM	491	652	875	34%
-Others	2,137	4,691	4,975	6%
Autonomous Bodies (AIIMS, PGIMER, etc.)	5,467	6,971	6,900	-1%
PMSSY	1,953	3,175	3,825	20%
National AIDS & STD Control Programme	1,749	2,163	2,100	-3%
Rashtriya Swasthya Bima Yojna	466	471	2,000	325%
Family Welfare Schemes	575	788	770	-2%
Others	6,331	8,924	8,875	-1%
Total	38,995	53,294	54,600	2%

Note: BE - Budget Estimate; RE - Revised Estimates; NHM- National Health Mission; NRHM- National Rural Health Mission; NUHM- National Urban Health Mission; PMSSY- Pradhan Mantri Swasthya Suraksha Yojana.

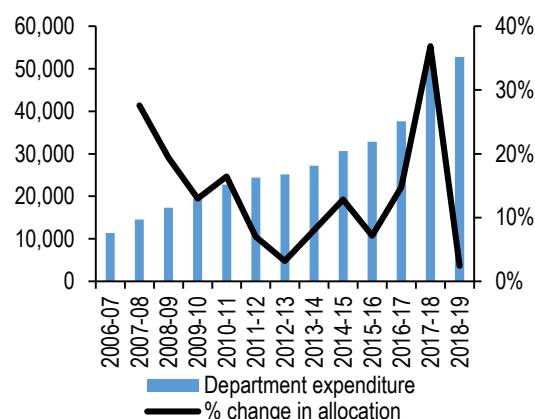
Source: Demand No. 42 & 43, Ministry of Health and Family Welfare, Union Budget 2018-19, PRS.

Proposals for the health sector in the Union Budget 2018-19

- The National Health Protection Scheme will be launched to cover approximately 50 crore beneficiaries (poor and vulnerable families) for secondary and tertiary care hospitalisation (part of Ayushman Bharat programme).
- 1.5 lakh Health and Wellness centres to provide comprehensive health care (including non-communicable diseases, and maternal and child health services). These centres will also provide free essential drugs and diagnostic services (part of Ayushman Bharat programme).
- Additional Rs 600 crore to provide nutritional support to all Tuberculosis patients at the rate of Rs 500 per month for the duration of their treatment.
- Setting up 24 new government medical colleges and hospitals by upgrading existing district hospitals.

Trends in allocation and expenditure

As indicated in Figure 1, the allocation to the Department of Health and Family Welfare has increased from Rs 11,366 crore in 2006-07 to Rs 52,800 crore in 2018-19. Over the period 2006-18, the Compound Annual Growth Rate (CAGR) has been 13%. CAGR is the annual growth rate over a certain period of time.

Figure 1: Allocation to the Department of Health and Family Welfare (2006-18) (in Rs crore)

Note: % change in allocation is BE (2018-19) over RE (2017-18) for 2018-19.

Source: Union Budgets, 2006-07 to 2018-19; PRS.

Table 4 indicates the actual expenditure of the Department of Health and Family Welfare compared with the budget estimates of that year (2010-17). The utilisation has been over 100% in the last three years.

Table 4: Comparison of budget estimates and the actual expenditure (2010-17) (in Rs crore)

Year	BE	Actuals	Actuals/BE
2010-11	23,530	22,765	82%
2011-12	26,897	24,355	82%
2012-13	30,702	25,133	82%
2013-14	33,278	27,145	82%
2014-15	35,163	30,626	87%
2015-16	29,653	30,626	103%
2016-17	37,066	37,671	102%
2017-18	48,853	53,294*	109%

Note: BE – Budget Estimates; *Revised Estimates.

Sources: Union Budgets, 2010-18; PRS.

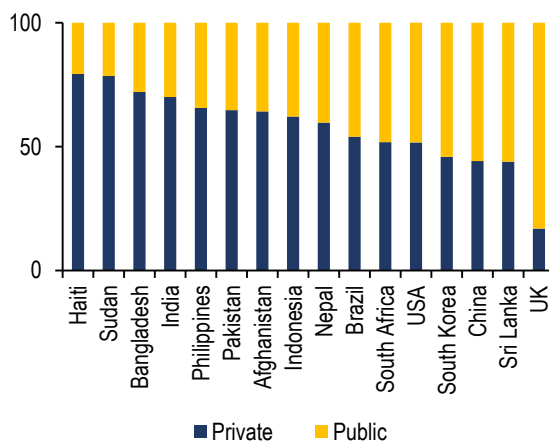
Public health spending

The public health expenditure (sum of central and state spending) has remained constant at approximately 1.3% of the GDP between 2008-09 and 2015-16, and increased marginally to 1.4% in 2016-17.^{2,3} Note that the National Health Policy, 2017 has proposed to increase the public health expenditure to 2.5% of the GDP by 2025.⁴

Including the private sector, the total health expenditure as a percentage of GDP is estimated at 4.0%.⁵ If 1.3% is attributed to public spending in India, then effectively, 2.7% is spent by the private sector. This means that out of the total expenditure, about one-third is contributed by the public sector. As per World Health Statistics (2014), this contribution by the public sector to the total expenditure on health is low as compared to other developing countries like Brazil (46%), China

(56%), and Indonesia (39%).⁶ Among developed countries, the public spending on healthcare in United Kingdom and United States of America is 83% and 48% respectively. The public-private split in the total health expenditure is shown in Figure 2 below.

Figure 2: Public and private split in the total health expenditure (in %)



Source: World Development Indicators: Health systems, World Bank, 2014; PRS.

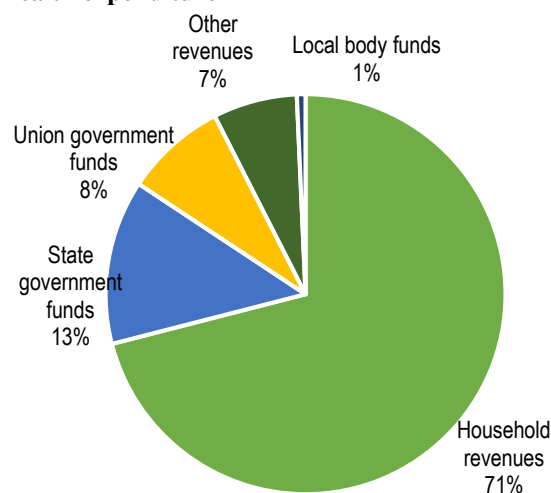
Further, India also spends one of the lowest amounts (\$23) in terms of per capita public health expenditure, in comparison to other developing countries like Indonesia (\$38), Sri Lanka (\$71), and Thailand (\$177).⁷

It is estimated that 68% of the health expenditure is borne by consumers in India.⁸ Household health expenditures are the expenditures incurred by households on health care and includes out of pocket expenditures and prepayments (for example, insurance). Out of pocket expenditure are the payments made directly by individuals at the point of service where the entire cost of the health good or service is not covered under any financial protection scheme. In India, such expenditure is typically financed by household revenues (71%) (see Figure 3). Only nine countries (out of 192) have a higher out of pocket spending as a proportion of total healthcare expenditure.¹⁹

The highest percentage of out of pocket health expenditure (52%) was made towards medicines.⁸ This was followed by private hospitals (22%), medical and diagnostic labs (10%), and patient transportation, and emergency rescue (6%).

Due to high out of pocket healthcare expenditure, about 7% population is pushed below poverty threshold every year.¹¹

Figure 3: Sources of financing for current health expenditure



Source: National Health Accounts, 2014-15; PRS.

National Health Protection Scheme

A new insurance scheme, the National Health Protection Scheme was proposed in the Union Budget 2018-19.⁹ This scheme will provide coverage to 10 crore poor and vulnerable families of up to Rs 5,00,000 per family per year for secondary and tertiary care hospitalisation. However, the funding for this scheme is not specified in the budget books.

The two major insurance schemes funded by the central government are Rashtriya Swasthya Bima Yojana (RSBY) and Central Government Health Scheme. Note that RSBY has seen the biggest increase in its budgetary allocation at 325% (Rs 2,000 crore) in 2018-19 over the revised estimates of 2017-18.

Insurance and Universal Health Coverage

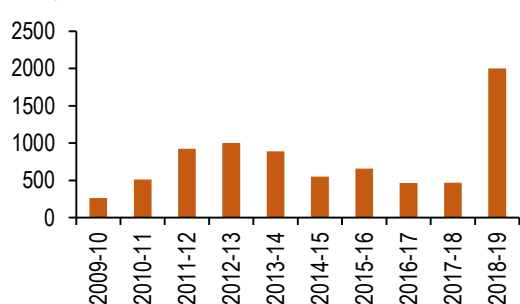
Out of the total number of persons covered under health insurance, three-fourths of the persons are covered under government sponsored health insurance schemes and the balance one-fourth are covered by policies issued by general and health insurers.¹⁰ Note that 86% of rural population and 82% of urban population are still not covered under any scheme of health expenditure support.¹¹

In terms of government sponsored health insurance, the Net Incurred Claims Ratio (ICR) increased from 87% during 2012-13 to 122% in 2016-17.¹⁰ A higher Net ICR means more claims have been paid in comparison to the premiums collected leading to losses. On the other hand, there has been a gradual decline in the Net ICR of other private insurance providers.

Rashtriya Swasthya Bima Yojana

The Rashtriya Swasthya Bima Yojana (RSBY), launched in 2008, aims to (i) provide financial protection against high health cost, and (ii) improve healthcare access for below poverty line households.¹² The beneficiaries under RSBY are entitled to hospitalisation coverage up to Rs 30,000 per annum on family floater basis, for most of the diseases that require hospitalisation. The beneficiaries need to pay Rs 30 as registration fee for a year. Only 12% of the urban and 13% of the rural population from the targeted population was covered by schemes such as the RSBY or other similar state sponsored schemes.¹²

Figure 4: Allocation to RSBY (2009-18) (in Rs crore)



Notes: Values for 2017-18 and 2018-19 are revised estimates and budget estimates respectively. All other values are actuals. Sources: Union Budget 2011-12 to 2018-19; PRS.

Figure 4 shows the RSBY allocation since 2009. The total allocation to the scheme is Rs 2,000 crore in 2018-19, a 325% increase over the revised estimates of 2017-18. The CAGR between 2009-18 has been 22% for RSBY allocation.

Central Government Health Scheme

With regard to the Central Government Health Scheme (CGHS), the allocation for 2018-19 is Rs 1,305 crore (5% increase over the revised estimates of 2017-18). The scheme provides healthcare services to central government employees, Members of Parliament, among others.

The Standing Committee noted the low capacity of utilising financial resources by CHGS.¹⁹ For example, only 60% of the funds had been used under CGHS and yet an increase in allocation was sought for 2017-18.¹⁹ Further, it noted that many hospitals have de-empanelled themselves from CGHS mainly due to non-settlement of their dues by the government.

Universal Health Coverage

With regard to health insurance in general, the High Level Expert Group (HLEG) (2011) recommended that all government funded insurance should be integrated with the Universal Health Coverage (UHC) system.¹³ In addition, all

health insurance cards must be replaced by a national health entitlement card.

UHC includes ensuring equitable access for all Indian citizens to affordable and appropriate health services of assured quality. This universal coverage is not linked to the consumer's ability to pay.¹³ The Finance Minister mentioned in his 2018-19 Budget Speech that India is making steady progress towards UHC.⁹

The World Bank measures the progress made in the health sector in select countries of the world according to the UHC Index. On this Index, India ranks 143 among 190 countries in terms of per capita expenditure on health.^{14,15}

Experts have recommended that decisions must be taken with respect to whether a consolidation of existing services will be undertaken or a new package will be offered in parallel with the existing services under UHC.¹⁶ It has been estimated that to achieve UHC, the public expenditure in health must increase to at least 2.5% of the GDP by the end of 2017 and at least to 3% of GDP by 2022.¹³ Further, it is estimated that the government would require a substantial spending increase at Rs 1,160 per capita per year if it is to be the sole provider of the comprehensive package of services.¹⁶

Financial allocations to outcomes

National Health Mission

The National Health Mission (NHM) consists of two sub missions, the National Rural Health Mission (NRHM) (includes health interventions in rural areas) launched in 2005 and the National Urban Health Mission (includes health interventions in urban areas) launched in 2013.

Components of NHM

NHM includes various components, these include: (i) reproductive, maternal, new born and child health services (RCH Flexi Pool), (ii) NRHM Mission Flexi Pool for strengthening health resource systems, innovations and information, (iii) immunisation including the Pulse Polio Programme, (iv) infrastructure maintenance, and (v) National Disease Control Programme.

Funding of NHM

The allocation for NHM in 2018-19 (Rs 30,130 crore) saw a 2% decrease over the revised estimates of 2017-18.

NHM's percentage share in the total budget has decreased from 73% in 2006-07 to 55% in 2018-19. This may be on account of increased devolution of resources to states following the recommendations of the 14th Finance Commission. The break up between central and state funding for

NHM can be seen in Table 5 for the period between 2014 to 2017.

Table 5: Funding for NHM (2014-17) (Rs crore)

Year	Central Revised Estimate	Corresponding state share	Total outlay
2014-15	17,628	5,167	22,795
2015-16	18,295	9,952	28,247
2016-17	20,000	10,103	30,103
2017-18*	21,941	12,084	34,025

Source: Unstarred Question No. 1080, Ministry of Health and Family Welfare, Lok Sabha, July 21, 2017.

*For 2017-18, outlay is as per Budget Estimate

The funding for NHM is done through flexible pools, such as NRHM-RCH flexible pool, and flexible pool for communicable diseases. The rationale for creating of the flexible pool is to allow more financial flexibility and efficient distribution of funds in order to obtain desired health outcomes.

Note that in 2018-19, among all the flexible pools, the pool of funds for non-communicable diseases has increased by 5% at Rs 1,005 crore. The allocation for the funding pool for communicable diseases and immunisation has decreased by 27% and 30% respectively. Between 2004-06 and 2010-13, the percentage of deaths caused by communicable diseases (27.7%) has seen the biggest decrease out of all the other causes of death. These diseases include fever, diarrhoea, and acute respiratory infection. On the other hand, the percentage of deaths due to non-communicable diseases (49.2%) has risen.¹⁷ These diseases include cardiovascular diseases, cancer, diabetes, and hypertension. The Standing Committee highlighted that in view of the increasing burden of non-communicable diseases in the country, fund constraint should not be the reason for increase in disease burden.¹⁹ Note that the challenge of non-communicable diseases typically arises following the elimination of communicable diseases. Non-communicable diseases are closely associated to lifestyle changes, and require large investments for both promotive and curative health.¹⁸

State level spending

Following the 14th Finance Commission recommendations, there has been an increase in the states' share in the central pool of taxes from 32% to 42% in 2015-16. In addition, the fund sharing pattern of some schemes was altered to reduce the central government share. This was done to give states greater autonomy and flexibility to spend according to their priorities.

It was noted in 2017 that despite the enhanced share in central taxes, all states have not increased their health budgets commensurately in 2016-17 and expenditure in sectors like health are higher in more developed states (See Appendix for more details).^{19,20} In fact, some of the state health

budgets for 2016-17 have declined as compared to 2015-16. For example, Assam (-7%), Chandigarh (-3%), Daman & Diu (-15%), and Karnataka (-2%).¹⁹

India faces a challenge to control communicable diseases even as it seeks to shift attention towards an increasing threat from non-communicable diseases. This challenge varies across states as richer states have a higher incidence of non-communicable diseases (such as hypertension and diabetes). For example, a report by the 14th Finance Commission noted that the comparatively better developed states like Kerala and Tamil Nadu have better health outcomes in comparison to other states.¹⁸ However, these states also face a health crisis of another kind. This leads to an additional financial burden for tackling non-communicable diseases.

Further, differences in the cost of delivery of health services in several states, have contributed to health disparities among and within states.

Release and utilisation of funds

The release of funds under NHM has often been delayed. For example, out of the total funds of Rs 8,242 crore released in 2016 under the reproductive and child healthcare, and the health systems strengthening components of NHM, Rs 7,460 crore were transferred with a delay.²¹

Despite delay in release of funds, effective utilisation of funds has occurred in the case of NHM where fund releases have been around 98%. The Standing Committee observed that timeliness of transfer of funds is important as delayed transfers hamper fund utilisation. In this regard, the existing fund release mechanism for NHM needs to be reviewed for better transfer of funds.²¹

Table 6: Targets as per NHM framework for implementation

Targets (2012-17)	Status (as on March, 2017)
Reduce IMR to 25	IMR has reduced to 37 in 2015.
Reduce MMR to 100/1,00,000 live births	MMR has reduced to 167 in 2011-13.
Reduce TFR to 2.1	TFR has reduced to 2.3 in 2014.
Annual Malaria Incidence to be < .001	Annual Malaria Incidence is 0.67 in 2016.
Less than 1 % microfilaria prevalence in all districts	Out of 256 endemic districts, 222 have reported incidence less than 1% till 2016.
Kala-Azar elimination by 2015, <1 case per 10,000 population in all blocks	Out of 628 endemic blocks, 492 (78%) have achieved elimination till 2016.

Source: Unstarred Question No. 2667, Ministry of Health and Family Welfare, Lok Sabha, March 17, 2017; PRS.

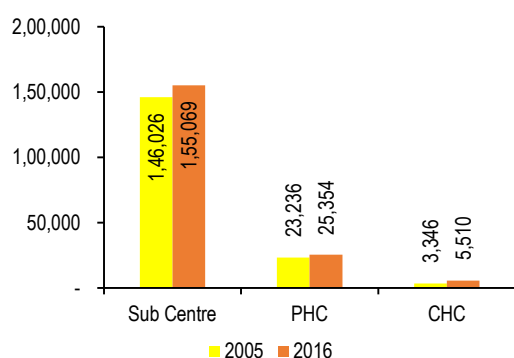
Note: IMR-Infant Mortality Rate; MMR-Maternal Mortality Rate; TFR-Total Fertility Rate.

Healthcare infrastructure

Depending on the level of care required, health institutions in India are broadly classified into three types. This classification includes primary care (provided at primary health centres), secondary care (provided at district hospitals), and tertiary care institutions (provided at specialised hospitals like AIIMS). Primary health care infrastructure provides the first level of contact between health professionals and the population.²² The HLEG (2011) observed that focus on prevention and early management of health problems can reduce the need for complicated specialist care provided at the tertiary level.¹³ It recommended that the focus of healthcare provision in the country should be towards providing primary health care.¹³

Broadly, based on the population served and the type of services provided, primary health infrastructure in rural areas consists of a three tier system. This includes Sub-Centres (SCs), Primary Health Centres (PHCs), and Community Health Centres (CHCs).²³ A similar set up is maintained in urban areas.²⁴ The number of SCs, PHCs, and CHCs in 2005 and 2016 respectively are given in Figure 5.

Figure 5: Number of Sub Centres, PHCs, and CHCs (2005 and 2016)



Source: Health and Family Welfare Statistics in India, 2015; PRS.

As of 2015, there are 20,306 government hospitals (including community health centres) in India, of which 82.8% are rural hospitals and 17.2% are urban hospitals.²⁵ Table 7 contains the norms, status, and shortfall in rural SCs, PHCs and CHCs (between 2010-14). A shortfall has been observed at different levels of the healthcare delivery system. As of 2016, there is a shortage of 20% in SCs, 22% in PHCs, and 30% in CHCs.²³ It has also been noted that the existing ones are also poorly equipped and have inadequate infrastructure with many PHC's functioning in erstwhile single room SCs and many SCs in thatched accommodation.²⁶

Table 7: State of rural health infrastructure

Type of Infrastructure	Required number	Status (As on 2015)	% shortfall
Sub-Centre	1,79,240	1,55,069	20%
Primary Health Centre	29,337	25,354	22%
Community Health Centre	7,322	5,510	30%

Sources: Rural Health Statistics 2016, Ministry of Health and Family Welfare, and Rural Health Infrastructure, Ministry of Statistics and Programme Implementation; PRS.

Note that under NRHM, states were permitted to establish facilities as per need. However, not many states did so due to lack of funds and the inability to close down even existing facilities (not in use) due to administrative bottlenecks.²⁶

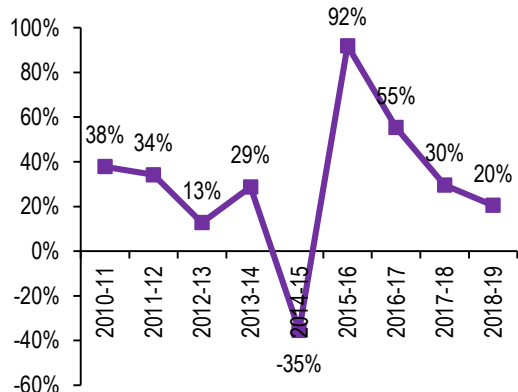
The Standing Committee on Health and Family Welfare observed that the proposal to transform 1,50,000 Health Sub-Centres into Health and Wellness Centres (as announced in the budget speech 2017-18) has not been implemented and has no "solid roadmap" as of now.²⁷

With regard to secondary and tertiary care, the HLEG (2011) recommended that in order to guarantee secondary and tertiary care, equitable access to functional beds must also be provided.¹³ According to the World Health Statistics, India ranks among the lowest in this regard, with 0.9 beds per 1000, far below the global average of 2.9 beds. It recommended functional bed capacity should be expanded to 2 beds per 1000 population by 2022.¹³

Pradhan Mantri Swasthya Suraksha Yojana

Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) has been implemented since 2003 with objectives of: (i) correcting regional imbalances in the availability of affordable and reliable tertiary healthcare services, and (ii) to augment facilities for quality medical education in the country. This includes establishing AIIMS like institutions and upgrading certain state government hospitals.

Six AIIMS from Phase I of the scheme are still underway and are at various stages of their completion and it would take some time to make them fully functional. The Standing Committee on Health and Family Welfare (2017) noted that this indicates poor assessment of time and cost which have left the allocated funds unused.¹⁹

Figure 6: Yearly change in the allocation to PMSSY (2009-18) (in Rs crore)

Notes: Values for 2017-18 and 2018-19 are revised estimates and budget estimates respectively

Sources: Union Budget 2008-09 to 2018-19; PRS.

In 2018-19, the allocation to PMSSY increased by 20% over the revised estimates of 2017-18 (see Figure 6) at Rs 3,825 crore. Note that the Budget Speech for 2018-19 mentioned that 24 new government medical colleges and hospitals will be set up by upgrading existing district hospitals.⁹

Regulation of private health services

As per the National Sample Survey 2015, most hospitalisation cases were seen in private hospitals (68% in urban and 58% in rural areas).²⁸ Further, in case of hospitalised, the cost of treatment (excluding childbirth) was four times higher in private hospitals (Rs 25,850) as compared to that in public hospitals (Rs 6,120).²⁸

The HLEG observed that regulatory standards for public and private hospitals are not adequately defined and are poorly enforced. Further, the quality of healthcare services varies considerably in the public and private sector.²⁹ It has also been observed that many practitioners in the private sector are not qualified doctors.²⁹

The 14th Finance Commission study group observed that the unregulated nature of the private sector is one of the issues leading to the high financial burden on households (which is not commensurate with the quality of care).³⁰ It recommended that a policy measure must be taken to regulate the private healthcare sector.

Human resources in health

Between 2008 and 2016, the number of registered doctors increased from 7,61,429 to 10,05,281 (32% increase).³¹ Note that despite the increase, there has been a steady increase in the shortfall of doctors, specialists and surgeons. For example, as of 2015, there is a shortfall of 83.4% of surgeons, 76.3% of obstetricians and gynaecologists, 83.0% of physicians and 82.1% of paediatricians.²⁵ Table 8 shows the number of health professionals in India. Refer to the appendix for the shortfall (in

percentage) of doctors at PHCs and nursing staff at CHCs and PHCs across various states as of 2016.

Table 8: Number of public health professionals in India (2016)

Profession	Number of professionals	Average population served per professional
Allopathic Doctors	1,13,328	11,097
AYUSH Doctors**	7,71,468	1,630
Nurses and Pharmacists	35,19,796	357

Notes: **includes Ayurveda, Unani, Siddha, Naturopathy, and Homeopathy.

Source: Human Resources in Health Sector, National Health Profile, 2017, Ministry of Health and Family Welfare, PRS.

Issues concerning medical practice

Certain reasons identified for the shortage of personnel in government facilities include: (i) poor working environment, (ii) poor remuneration making migration to foreign countries and to the private sector more attractive, and (iii) procedural delays in recruitment and poor forward planning for timely filling up of positions. It has been estimated that filling up human resource gaps in 16 states, would require an outlay equivalent to 0.6% to GDP.¹³

With regard to health professionals, the HLEG (2011) recommended that adequate number of trained healthcare providers and workers must be ensured at different levels of the health system.¹³

Issues concerning medical education

Expert committees have examined issues related to medical education in India. Certain key observations and recommendations include:^{32,33}

- i. **Focus on infrastructure over education quality:** Major focus on maintenance of quality in medical education only in terms of fulfilling infrastructural requirements which has meant inadequate evaluation of the other standards of medical education.
- ii. **Post-graduation qualification:** Presently, there are two systems of post graduate certification, namely Diplomate of National Board and MD/MS (master's degree). The Parliamentary Standing Committee recommended that the current system of postgraduate admission must be integrated into one national qualification.
- iii. **'For-profit' organisations to establish medical colleges:** Currently, only 'not-for-profit' organisations are permitted to establish medical colleges. It has been observed that many private institutions of higher education charge exorbitant fees. In the absence of well-defined norms, fees charged by such universities have remained high.³⁴ In 2002, the

Supreme Court ruled that the fees charged by private unaided educational institutes could be regulated.³⁵ Also, while banning capitation fee (fees exceeding the tuition fee), it allowed institutes to charge a reasonable surplus. NITI Aayog recommended that the sector should be opened to 'for-profit' organisations as well to address the supply gaps in medical education.³²

- iv. **Accreditation:** The Medical Council of India (MCI) is entrusted with the responsibility of establishing as well as ensuring the quality of medical institutions. Committees have observed that these functions of the MCI may lead to a conflict of interest. Therefore, an independent and autonomous accreditation body must be set up which will be responsible for ensuring the quality of education.

The National Medical Commission Bill, 2017

A legislation regarding the medical regulatory authority is pending in Parliament which shall oversee medical education and practice. The National Medical Commission Bill, 2017 was introduced in Lok Sabha on December 29, 2017. The Bill seeks to repeal the Indian Medical Council Act, 1956 and dissolve the current Medical Council of India (MCI). The MCI was established under the 1956 Act to establish uniform standards of medical education and regulate its practice.

The Bill seeks to provide for a medical education system which ensures: (i) availability of adequate and high quality medical professionals, (ii) adoption of the latest medical research by medical professionals, (iii) periodic assessment of medical institutions, and (iv) an effective grievance redressal mechanism.

Health research

The Standing Committee on Health and Family Welfare noted that there is a huge, persistent, and recurring mismatch between the projected demand for funds and actual allocation to the Department of Health Research.³⁶ In 2018-19, its allocation has seen an increase of 3% over the revised estimates of 2017-18 at Rs 1,800 crore. The Committee also noted that the Department had reported underutilisation of funds and on the other hand, the Department had also given an enhanced amount as its requirement for the next financial year.³⁶

This mismatch between the demanded and allocated funds has led to impact in terms of restrictions in the sanctioning of new labs, providing recurring grants to the ongoing projects, and upgradation of health research infrastructure.³⁶ This also led to repercussions in the medical research output. For example, in two years i.e. 2015 and 2016, only 1,685 research papers have

been published by the Indian Council of Medical Research and 3 patents have been granted against the 45 patents filed.³⁶

Drug regulation

The central and state agencies for drug regulation are governed by the Drugs and Cosmetics Act, 1940 (DCA). The DCA provides for the regulation of import, manufacture, sale, and distribution of drugs. Although the DCA is a central legislation, it is implemented by the states.

Over the years, various Committees have examined the issues relating to the regulation of drugs.

The Mashelkar Committee Report (2003) highlighted the following challenges of the drug regulatory system: (i) inadequacy of trained and skilled personnel at the central and state levels, (ii) lack of uniformity in the implementation of regulatory requirements and variations in regulatory enforcement, and (iii) inadequate or weak drug control infrastructure at the state and central level.³⁷

Expert committees have recommended many steps to address these concerns regarding drug regulation in the country.^{37,38,39} They include: (i) a new independent and professionally run regulatory body, Central Drug Administration reporting directly to MoHFW, (ii) categorising the states in terms of scale of industry (manufacturing and sale) and investment in their regulation accordingly, (iii) the revision and imposition of higher fees for drug applications, clinical trials, and registration of imported drugs and foreign manufacturers, and (iv) establishment of technical expert committees for new drug approvals.

Quality of drugs

The Parliamentary Standing Committee Report (2013) found that the prevalence of poor quality drugs to be around 7-8 % where non-standard drugs outnumber spurious drugs.⁴⁰

Table 9: Status of 'non-standard quality' and 'spurious' drugs (2013-2015)

Year	Samples tested	Samples declared not of standard quality	Samples declared spurious
2013-14	72,717	4.16%	0.16%
2014-15	74,199	4.98%	0.11%
2015-16	74,586	4.96%	0.31%

Source: Unstarred Question No. 719, Ministry of Health and Family Welfare, Lok Sabha, Answered on February 7, 2017; PRS. Note: 'Standard quality' means that a drug which complies with the standards set out in the Second Schedule of the DCA; A drug shall be deemed to be 'spurious' if: (i) it is manufactured under a name which belongs to another drug, (ii) if it is an imitation of another drug, (iii) if it has been substituted wholly or partly by another drug, and (iv) if it wrongly claims to be the product of another manufacturer.⁴¹

The extent of 'non-standard quality' drugs in a country wide survey between 2013 and 2015 has been in the range of 4.16% and 4.98% (see Table 9).⁴² The extent of 'spurious' drugs during the same time period has been in the range of 0.11% to 0.31% (see Table 9).⁴²

With regard to quality of drugs, the Mashelkar Committee recommended that: (i) states should take more samples to check the quality of drugs manufactured and sold in the market, (ii) states should also monitor the source of purchase and quality of drugs stocked by registered medical practitioners, and (iii) number of drug inspectors and their skills must be upgraded according to the load of work of inspections and monitoring.³⁷

It was also observed that lower number of cases were decided as compared to the number of cases which were being filed with regard to low quality of drugs. Table 10 provides details on the number of prosecutions and cases decided related to spurious drugs.

Table 10: Number of prosecutions and cases decided in cases of spurious drugs

Year	No. of cases	No. of cases decided
2012-13	214	6
2013-14	237	44
2014-15	152	10

Source: Unstarred Question No. 640, Lok Sabha, Ministry of Health and Family Welfare, Answered on February 26, 2016; PRS.

Drug pricing

The National Pharmaceutical Pricing Authority (NPPA) monitors the availability and pricing of drugs in the country. NPPA fixes the prices of drugs/devices included in Schedule I of Drugs (Prices Control) Order (DPCO), 2013 after their notification under National List of Essential Medicines (NLEM). NLEM, 2015 consists of 375 medicines in total (this includes 23 medical devices). Wherever instances of manufacturers/importers charging prices higher than the prices fixed by the NPPA are reported, these cases are examined in detail. Since the inception of NPPA in 1997 till 2012, 1,664 demand notices have been issued to pharmaceutical companies for having overcharged patients on the sale of formulations at prices above the ceiling prices notified by NPPA.⁴³ Demand notices have been issued for an amount of Rs 5,778 crore and an amount of Rs 3,454 crore is under litigation.⁴⁴

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² Economic Survey, 2015-16, Ministry of Finance, <http://indiabudget.nic.in/budget2016-2017/es2014-15/echapter-vol1.pdf>.

³ Economic Survey, 2016-17, Ministry of Finance, <http://indiabudget.nic.in/es2016-17/echapter.pdf>.

⁴ National Health Policy, 2017, Ministry of Health and Family Welfare, March 16, 2017, <http://mohfw.nic.in/showfile.php?lid=4275>.

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⁶ Unstarred question no. 2201, Ministry of Health and Family Welfare, Lok Sabha, Answered on July 29, 2016, <http://164.100.47.190/loksabhaquestions/annex/9/AU2201.pdf>.

⁷ Unstarred Question No. 5019, Ministry of Health and Family Welfare, Lok Sabha, answered on March 31, 2017, <http://164.100.47.190/loksabhaquestions/annex/11/AU5019.pdf>.

⁸ Household Health Expenditures in India (2013-14), December 2016, Ministry of Health and Family Welfare, <http://www.mohfw.nic.in/sites/default/files/38300411751489562625.pdf>.

⁹ Budget Speech, 2018-19, <http://www.indiabudget.gov.in/ub2018-19/bs/bs.pdf>.

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¹¹ "Chapter three, Summary of Findings, Key Indicators of Social Consumption in India in Health", 71st Round, National Sample Survey (NSS), Ministry of Statistics and Programme, <http://mail.mospi.gov.in/index.php/catalog/161>.

¹² "Rashtriya Swasthya Bima Yojana", Last accessed on March 8, 2016, http://www.rsbys.gov.in/about_rsbys.aspx.

¹³ "High Level Expert Group Report on Universal Health Coverage for India", Planning Commission of India, November 2011, http://planningcommission.gov.in/reports/genrep/rep_uhc0812.pdf.

¹⁴ "Health expenditure per capita (US \$)", World Health Organisation, <http://data.worldbank.org/indicator/SH.XPD.PCAP>.

¹⁵ National Health Profile, 2016, Ministry of Health and Family Welfare, <http://www.cbhidghs.nic.in/E-Book%20HTML-2016/index.html>.

¹⁶

"Essential Health Package for India: Approach and Costing", Institute of Economic Growth, Finance Commission, http://fincomindia.nic.in/writereaddata/html_en_files/fincom14/others/40.pdf.

¹⁷ Causes of death, 2010-13, Office of the Registrar General & Census Commissioner, http://www.censusindia.gov.in/vital_statistics/causesofdeath.html.

¹⁸ "Inter-State Comparisons on Health Outcomes in Major States and a Framework for Resource Devolution for Health", Centre for Economic & Social Studies, Hyderabad, 14th Finance Commission, http://fincomindia.nic.in/writereaddata/html_en_files/fincom14/others/39.pdf.

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Annexure

Union Budget, 2018-19

Table 1: Allocations to the Ministry of Health and Family Welfare for 2018-19 (in Rs crore)

Major Heads	2016-17 Actuals	2017-18 BE	2017-18 RE	2018-19 BE	% Change RE (2017-18)/Actuals (2016-17)	Change between RE 2017-18 and BE 2018-19
Department of Health Research	1,324	1,500	1,743	1,800	32%	3%
Department of Health and Family Welfare	37,671	47,353	51,551	52,800	37%	2%
Pradhan Mantri Swasthya Suraksha Yojana	1,953	3,975	3,175	3,825	63%	20%
Family Welfare Schemes	575	755	788	770	37%	-2%
National AIDS and STD Control Programme	1,749	2,000	2,163	2,100	24%	-3%
National Health Mission	22,454	26,691	30,802	30,130	37%	-2%
-National Rural Health Mission	19,826	21,189	25,459	24,280	28%	-5%
-National Urban Health Mission	491	752	652	875	33%	34%
-National Mental Health Programme	34	35	45	50	32%	11%
-Human Resources for Health and Medical Education	1,497	4,025	4,025	4,225	169%	5%
Infrastructure Development for Health Research	76	104	127	138	67%	9%
Rashtriya Swasthya Bima Yojna	466	1,000	471	2,000	1%	325%
Autonomous Bodies	5,467	6,088	6,971	6,900	28%	-1%
Others	6,254	8,240	8,799	8,737	41%	-1%
Total	38,995	48,853	53,294	54,600	37%	2%

Sources: Demand for Grants, Ministry of Health and Family Welfare, Union Budget, 2018-19; PRS.

State-wise and global numbers on the health sector

Table 2: Average health expenditure (2012-13) (urban and rural, in Rs)

State	Average health expenditure (rural)	Average health expenditure (urban)
Andhra Pradesh	13,227	31,242
Arunachal Pradesh	5,678	8,926
Assam	6,966	47,064
Bihar	11,432	25,004
Chhattisgarh	12,149	22,647
Delhi	30,613	34,730
Goa	29,954	23,165
Gujarat	14,298	20,155
Haryana	18,341	32,370
Himachal Pradesh	18,860	28,590
Jammu & Kashmir	8,442	13,948
Jharkhand	10,351	13,151
Karnataka	14,091	22,190
Kerala	17,642	15,465
Madhya Pradesh	13,090	23,993
Maharashtra	20,475	29,493
Manipur	6,061	10,215
Meghalaya	2,075	18,786

Mizoram	8,744	13,461
Nagaland	5,628	15,788
Odisha	10,240	19,750
Punjab	27,718	29,971
Rajasthan	12,855	16,731
Sikkim	8,035	9,939
Tamil Nadu	11,842	23,757
Telangana	19,664	20,617
Tripura	5,694	11,638
Uttar Pradesh	18,693	31,653
Uttarakhand	9,162	25,703
West Bengal	11,327	24,875
Andaman & Nicobar Islands	3,373	8,389
Chandigarh	16,389	35,158
Dadra & Nagar Haveli	4,219	7,749
Daman & Diu	10,223	6,930
Lakshadweep	10,418	8,604
Puducherry	7,965	14,076
All India	14,935	24,436

Sources: District Level Household and Facility Survey -4 (2012-13); PRS.

Table 3: Shortfall (%) of doctors at PHCs and nursing staff at CHCs and PHCs across states (2016)

State	Doctors at PHCs	Nursing staff at PHCs and CHCS
Andhra Pradesh	**	**
Arunachal Pradesh	15%	16%
Assam	8%	**
Bihar	1%	34%
Chhattisgarh	56%	21%
Goa	**	**
Gujarat	16%	24%
Haryana	**	**
Himachal Pradesh	18%	38%
Jammu and Kashmir	**	**
Jharkhand	17%	36%
Karnataka	9%	13%
Kerala	**	**
Madhya Pradesh	19%	1%
Maharashtra	**	44%
Manipur	**	**
Meghalaya	4%	**
Mizoram	**	**
Nagaland	5%	**
Odisha	27%	64%
Punjab	**	**
Rajasthan	**	**
Sikkim	**	**
Tamil Nadu	**	**
Tripura	**	**
Uttarakhand	16%	48%
Uttar Pradesh	36%	50%
West Bengal	21%	**
Andaman and Nicobar Islands	**	**
Chandigarh	33%	**
Dadra and Nagar Haveli	0%	**
Daman and Diu	**	11%
Delhi	**	**
Lakshadweep	**	**
Puducherry	**	**
All India	13%	21%

Source: Rural Health Statistics 2015, Ministry of Health and Family Welfare; PRS.

Note: Norm for nursing staff: One per Primary Health Centre and seven per Community Health Centre; for doctors: One allopathic doctor per Primary Health Centre; ** : surplus human resources exceeding the norms.

Table 4: Reasons for not using government health facilities (2012-13) (in %)

State	% of households that do not generally use government health facilities	Reasons for not generally using government health facilities among households which do not generally use government health facilities					
		No nearby facility	Facility timing not convenient	Health personnel often absent	Waiting time too long	Poor quality of care	Other reason
Andhra Pradesh	74.3	49.2	18.1	12.8	23.4	63.3	3.2
Assam	34.8	48.9	6.6	6.1	11.2	39.4	7.3
Bihar	93.3	44.9	8.4	21.4	14.2	83.7	2.1
Chhattisgarh	63.7	56.4	9.2	6.3	19.0	41.3	9.1
Gujarat	72.5	45.0	16.0	6.9	31.6	42.6	5.8
Haryana	72.3	42.1	12.9	7.4	25.2	54.9	5.2
Jharkhand	77.7	55.3	8.5	9.7	6.5	56.4	7.5
Karnataka	64.0	45.1	25.1	14.3	31.8	50.8	5.2
Kerala	50.0	47.7	20.5	14.5	25.8	34.2	9.8
Madhya Pradesh	62.6	50.8	10.0	7.7	26.4	62.9	1.6
Maharashtra	70.3	37.5	16.1	5.3	30.1	56.4	2.9
Odisha	24.0	61.0	6.9	7.7	9.7	38.9	5.6
Punjab	80.8	42.2	18.1	8.8	22.7	52.3	7.9
Rajasthan	29.8	35.3	9.1	6.7	17.2	62.9	2.1
Tamil Nadu	47.0	28.3	23.0	3.0	32.3	55.4	3.4
Uttar Pradesh	84.7	53.5	4.6	7.4	20.4	65.1	2.5
West Bengal	71.2	54.3	14.8	4.3	35.2	41.4	4.7
Arunachal Pradesh	17.5	50.1	24.4	7.0	18.3	36.7	6.5
Delhi	70.7	37.2	18.4	2.3	57.4	36.3	1.8
Goa	70.4	41.8	14.4	4.4	27.8	29.4	11.2
Himachal Pradesh	17.3	34.1	11.9	5.6	31.3	43.1	5.0
Jammu & Kashmir	37.1	33.2	9.3	5.9	22.4	55.3	7.3
Manipur	21.0	29.8	20.2	11.2	19.4	46.4	10.6
Meghalaya	35.2	33.4	17.2	14.1	21.7	33.3	8.6
Mizoram	9.4	26.4	7.2	2.2	23.2	42.5	8.6
Nagaland	47.9	54.1	14.7	8.3	14.6	29.8	8.3
Sikkim	8.2	8.4	22.0	4.7	50.7	47.7	5.5
Tripura	20.1	29.4	20.4	6.6	23.8	47.1	9.0
Uttarakhand	55.6	49.2	14.7	14.4	37.4	64.1	2.6
All India	65.6	46.8	13.1	9.2	24.8	57.7	3.9

Sources: District Level Household and Facility Survey -4 (2012-13); PRS.

Table 5: Cross country comparison of health indicators

Country	Population (Million) 2013	Crude Birth Rate 2013	Total Fertility Rate, 2013	Under 5 mortality rate, 2013	Infant Mortality Rate (per 1000 live Births) 2013	Underweight children (%) (2009-13)	Life Expectancy at Birth (Years) 2013	Maternal Mortality Ratio (MMR) 2015 \$
India	1252.1	20.0	2.5	53	41	44	66	174
Afghanistan	30.6	34	4.9	97	70	33	61	396
Bangladesh	156.6	20	2.2	41	33	37	71	176
China	1385.6	13	1.7	13	11	3	75	27
North Korea	24.9	14	2.0	27	22	15	70	82
Indonesia	249.9	19	2.3	29	25	20	71	126
Iran	77.4	19	1.9	17	14	4	74	25
Japan	127.1	8	1.4	3	2	-	84	5
Malaysia	29.7	18	2.0	9	7	13	75	40

Myanmar	53.3	17	1.9	51	40	23	65	178
Nepal	27.8	21	2.3	40	32	29	68	258
Pakistan	182.1	25	3.2	86	69	32	67	178
Philippines	98.4	24	3.0	30	24	20	69	114
South Korea	49.3	10	1.3	4	3	1	82	11
Singapore	5.4	10	1.3	3	2	3	82	10
Sri Lanka	21.3	18	2.3	10	8	26	74	30
Thailand	67.0	10	1.4	13	11	9	74	20
Vietnam	91.7	16	1.7	24	19	12	76	54
Botswana	2.0	24	2.6	47	36	11	48	129
Cambodia	15.1	26	2.9	38	33	29	72	161
Congo	4.4	38	5.0	49	36	12	59	442
Guatemala	15.5	31	3.8	31	26	13	72	88
South Africa	52.8	21	2.4	44	33	9	57	138
Zimbabwe	14.2	31	3.5	89	55	10	60	443
Australia	23.3	13	1.9	4	3	-	82	6
France	64.3	12	2.0	4	4	-	82	8
Germany	82.7	8	1.4	4	3	1	81	6
UK	63.1	12	1.9	5	4	-	81	9
USA	320.1	13	2.0	7	6	1	79	14

Sources: Health and Family Welfare Statistics, 2015 (Rural); PRS.

Table 6: Key indicators of child malnutrition

Parameter	NFHS 3 (2005-06)	NFHS 4 (2015-16)
Total children age 6-23 months receiving an adequate diet	n/a	9.6%
Children under 5 years who are stunted (low height-for-age)	48.0%	38.4%
Children under 5 years who are wasted (weight-for-height)	19.8%	21.0%
Children under 5 years who are severely wasted (weight-for-height)	6.4%	7.5%
Children under 5 years who are underweight (low weight-for-age)	42.5%	35.7%
Children age 6-59 months who are anaemic	69.4%	58.4%
Children under age 3 years breastfed within one hour of birth	23.4%	41.6%

Source: National Family Health Survey 3 & 4; PRS.

Table 7: Key indicators of adult malnutrition

Parameter	NFHS 3 (2005-06)	NFHS 4 (2015-16)
Women whose Body Mass Index (BMI) is below normal (BMI < 18.5 kg/m ²)	35.5%	22.9%
Men whose Body Mass Index (BMI) is below normal (BMI < 18.5 kg/m ²)	34.2%	20.2%
Women who are overweight or obese (BMI ≥ 25.0 kg/m ²)	12.6%	20.7%
Men who are overweight or obese (BMI ≥ 25.0 kg/m ²)	9.3%	18.6%

Source: National Family Health Survey 3 & 4; PRS.

Table 8: State-wise incidence of stunting, wasting, and underweight children (under 5 years) (2015-16)

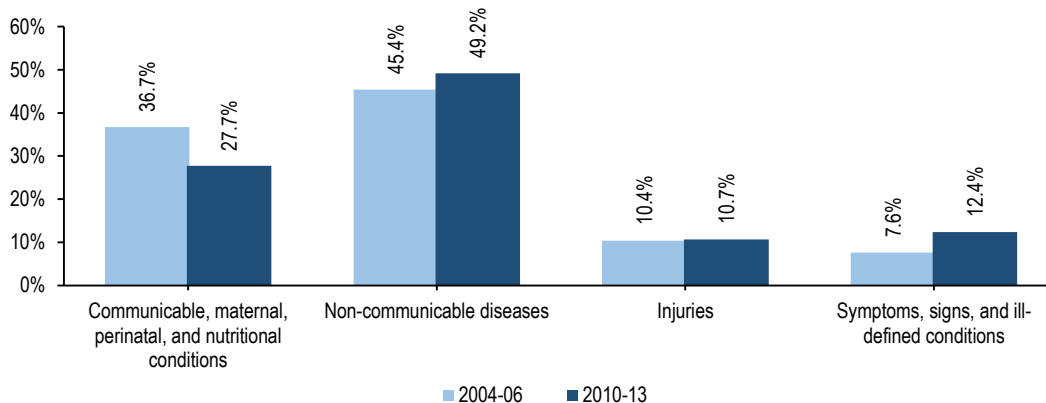
State/UT	Stunted	Wasted	Underweight
Andaman and Nicobar Islands	17.1%	19.1%	15.9%
Andhra Pradesh	28.3%	15.5%	28.4%
Arunachal Pradesh	24.0%	11.4%	13.8%
Assam	22.3%	13.2%	21.4%
Bihar	39.8%	21.3%	37.5%
Chandigarh	27.6%	11.4%	25.1%
Chhattisgarh	31.6%	20.6%	30.2%
Delhi	32.4%	17.2%	27.3%

Dadra and Nagar Haveli	35.8%	21.4%	27.4%
Daman and Diu	21.9%	23.8%	27.2%
Goa	18.3%	27.7%	25.3%
Gujarat	31.7%	23.4%	32.0%
Haryana	33.4%	21.0%	28.5%
Himachal Pradesh	21.4%	19.1%	17.1%
Jammu and Kashmir	23.0%	16.1%	17.0%
Jharkhand	33.7%	26.8%	39.3%
Karnataka	32.6%	24.8%	31.5%
Kerala	19.8%	16.0%	15.5%
Lakshadweep	27.1%	13.2%	22.6%
Madhya Pradesh	37.5%	22.0%	36.5%
Maharashtra	29.3%	24.9%	30.7%
Manipur	24.1%	6.4%	13.1%
Meghalaya	36.5%	13.7%	22.9%
Mizoram	22.7%	4.5%	8.5%
Nagaland	22.5%	10.1%	13.6%
Odisha	27.2%	17.0%	26.2%
Punjab	27.6%	15.0%	22.4%
Puducherry	24.7%	26.1%	23.3%
Rajasthan	33.0%	21.6%	30.7%
Sikkim	22.9%	13.2%	12.0%
Tamil Nadu	25.5%	19.0%	21.5%
Telangana	20.9%	14.6%	22.2%
Tripura	17.2%	13.4%	21.7%
Uttar Pradesh	37.9%	18.0%	33.7%
Uttarakhand	32.5%	18.6%	25.6%
West Bengal	28.5%	16.7%	26.2%
India	38.4%	21.0%	35.7%

Source: National Family Health Survey 4; PRS.

Graphical representation of key indicators related to the health sector

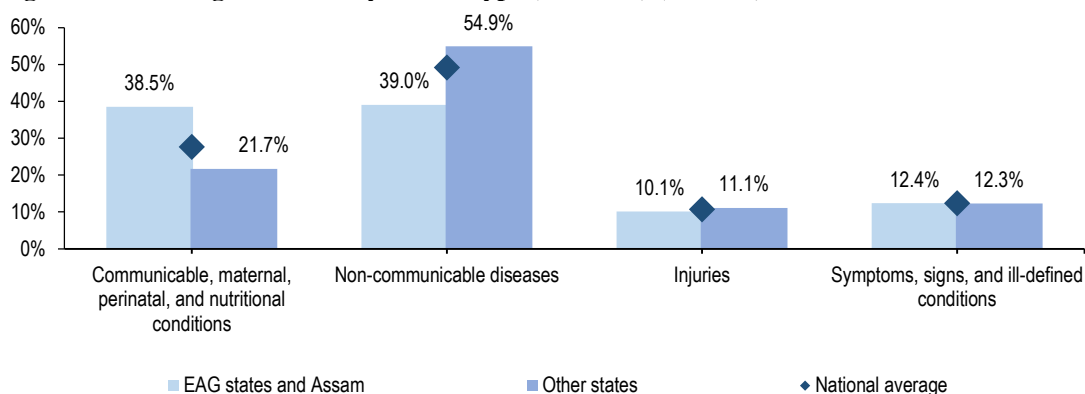
Figure 1: Percentage of deaths by disease type (all India)



Source: Causes of death, 2010-13, Office of the Registrar General & Census Commissioner; PRS.

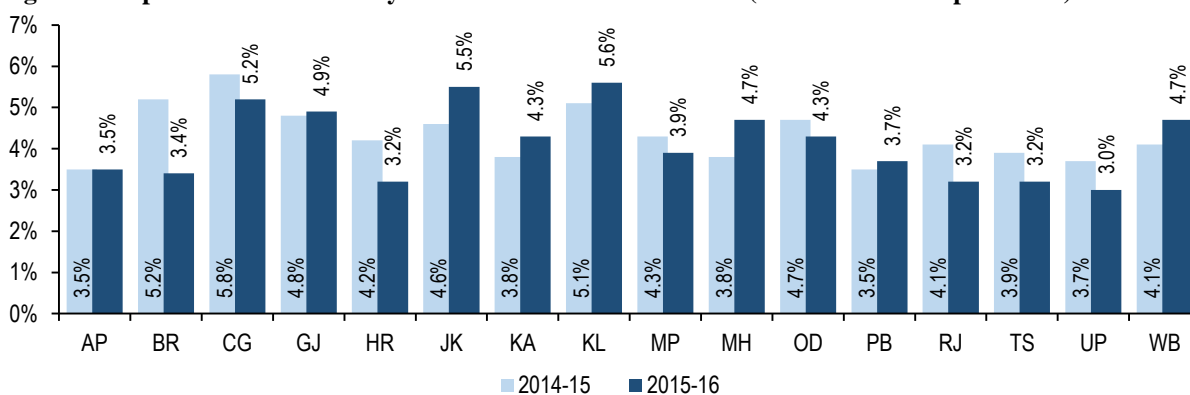
Note: Deaths caused by diseases in India can be attributed to four main causes: (i) communicable, perinatal, and nutritional conditions: includes diarrhoeal diseases, respiratory infections, and tuberculosis, (ii) non-communicable diseases: includes diabetes, cardiovascular diseases, and congenital anomalies, (iii) injuries: includes unintentional injuries (for example, caused by motor vehicles) and intentional injuries (for example, caused by suicide), and (iv) symptoms, signs, and ill-defined conditions: includes abnormal clinical findings

Figure 2: Percentage of deaths by disease type (statewise) (2010-13)



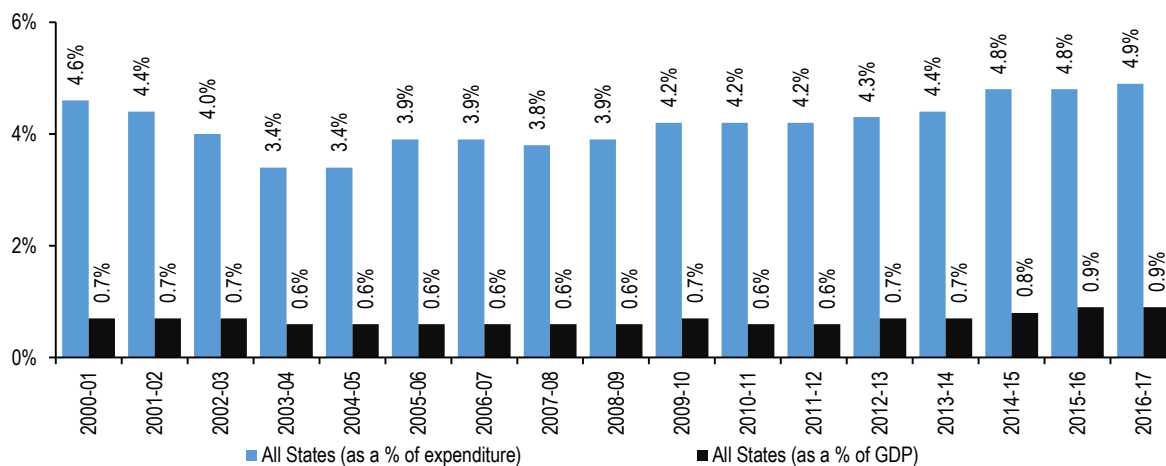
Note: EAG states include Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttaranchal, and Uttar Pradesh.
 Source: Causes of death, 2010-13, Office of the Registrar General & Census Commissioner; PRS.

Figure 3: Expenditure on health by states in 2014-15 and 2016-17 (as a % of total expenditure)



Source: State Budgets, 2016-17, PRS.

Figure 4: Expenditure on medical and public health, and family welfare (all states)



Sources: State Finances: A Study of Budgets, RBI; PRS.

Note: Figures of 2016-17 and 2015-16 are Budget Estimates and Revised Estimates respectively.