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Can India Achieve Universal Health Coverage by 2030?

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Abstract

Universal Health Coverage (UHC) launched by World Health Organization in 2013 is meant to promote the human right to health that would make the biggest impact on global health. Every country in the world has committed to get this done by target year 2030, so has India too. The core tents of UHC are prioritizing the poorest and vulnerable, increased reliance on public funding, reduce Out of pocket expenditures and strengthen country's health system. Its essentials include National Health Policies, Health Financing for UHC, Health Statistics & Information system for programming, skilled health human resource, Essential drugs & supplies and service delivery, quality and safety.

Sir Joseph Bhore (Health Survey and Development) committee submitted its first ever report of 1946 that was guided by the principal of 'nobody should be denied access to health services for his inability to pay' with a focus on rural areas. That was accepted by independent India and a start was made in 1952 to setup primary health centers to provide integrated promotive, preventive, curative and rehabilitative services to the rural population, as a component of wider Community Development Program. Until seventh five-year plans Governments made a lot of radical statements, recommended progressive measures but did not take adequate action. The first ever National Health Policy was endorsed by the Parliament of India in 1983 and updated in 2002 and then in 2017. The NHPs 1&2 missed systematic health system development and encouraged plucking low lying fruits. The 7 Key Policy Shifts in NHP 2017 that might change the health of the country are:

1. Assured comprehensive care at community level that has continuity with higher levels.
2. In Secondary and Tertiary Care: From an input oriented, budget line financing to an output based strategic purchasing of secondary and tertiary care.
3. From user fees & cost recovery based Public Hospitals to assured free, diagnostic and emergency services to all public health facilities.
4. From normative approaches in the Infrastructure & Human Resource Development to targeted approaches to reach under-serviced areas.
5. From token under-financed interventions to scaling up with a focus on urban poor, establish linkages with national programs, achieving convergence among wider determinants of health under In Urban Health initiative.

6. Integration of National Health Programs with health systems for their own effectiveness and in turn strengthening health systems efficiency.
7. A three-dimensional mainstreaming of Indian system (Ayurveda, Yoga, Unani, Siddha and Homeopathy- AYUSH) of health services to contribute for the health of the people.

India has also started some newer initiatives like Swachh Bharat Mission, Smart City Mission and National Nutrition Mission all of them will facilitate achieving Universal Health Care. There are multiple challenges India faces, namely i) Low public outlay so far had made it impossible for the public sector to respond to the growing health needs of the population that needs transformational initiative in health financing, public private mix in service delivery, ii) To move from sectoral and segmented approach of health service delivery to a comprehensive need-based health care service, that has been committed in NHP 2017 aiming to undertake path breaking interventions to holistically address health (covering prevention, promotion and ambulatory care), at primary, secondary and tertiary level, iii) Aggressive implementation of agreed strategies and intensive monitoring of achieving set targets by set time line and iv) The only other challenge is ensuring accountability, through good governance. We do have good plans & strategies, but accountability is missing. Accountability can be enforced only when there is clear chain of command. India has emerged as the global pharmacy for inexpensive drugs and vaccines and the goal now is to make available in every village and urban community in the next decade. Last but most important is to involve people in deciding health priorities, own interventions through IEC social mobilization and community system strengthening to lower inequities.

Keywords: Health policy; Universal Health Care; Global Health

Abbreviations: ARI: Acute Respiratory Infections; AIIMS: All India Institute of Medical Sciences; ART: Anti-Retroviral Therapy; CPHC: Comprehensive Primary Health Care; GDP: Gross Domestic Product; GOI: Government of India; FRU: First Referral Units; INR= Indian National Rupee; NACO: National Aids Control Organization; NHA: National Health Agency; NHP: National Health Policy; NITI Ayog: National Institution for Transforming India Ayog (Hindi version of Planning Commission); PHC: Primary Health Center/Primary Health Care; OOPs: Out of Pocket Expenses; RMNCH+A: Reproductive, Maternal , Newborn, Child and Adolescent Health Program; UHC: Universal Health Care/Universal Health Coverage; SDGs= Sustainable Development Goals; UNFPA: United Nations Population Fund; UNICEF: United Nations Children's Fund; USAID: United States Aids for International Development; WHO: World Health Organization.

Introduction

Human rights legislation is the backbone of effective global health. Global health allows us to realize human rights, particularly the right to health of every human being. Human rights an international legislation that defines what the rights are and who is responsible for what and what must be done. Universal Health Coverage (UHC) launched by World Health Organization in 2013 is one such human right meant to promote the human right to health that would make the biggest impact on global health [1]. Every country in the world has committed to get this done by target year 2030 so, has India too.

In 1978, at an international conference in Alma Ata, Kazakhstan, the World Health Organization (WHO) and the United Nations Children's Fund put forward a policy proposal entitled "Primary Health Care" (PHC) [2]. Adopted by all the World Health Organization member states, the proposal under the banner called "Health for all by the Year 2000," they had set out to turn their vision for improving health into practice. Primary health care was a whole-of-society approach to health and well-being centered on the needs and preferences of individuals, families and communities. It addressed the broader determinants of health and focuses on the comprehensive and interrelated aspects of physical, mental and social health and wellbeing. It provided whole-person care for health needs throughout the lifespan, not just for a set of

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specific diseases. Primary health care could have ensured people receive comprehensive care - ranging from promotion and prevention to treatment, rehabilitation and palliative care - as close as feasible to people's everyday environment.

Majority of the countries confronted several critical challenges since 1978 [2] that included defining PHC and translating PHC into practice, developing frameworks to translate equity into action, experiencing both the potential and the limitations of community participation in helping to achieve the WHO definition of health, and seeking the necessary financing to support the transformation of health systems. These challenges were taken up by global, national, and nongovernmental organization programs in efforts to balance the PHC vision with the realities of health-service delivery [2]. The implementation had varying degrees of success and failure.

The meaning of primary health care (PHC) has evolved over time. It originated as primary medical care where patients met health workers and got requisite care for common complaints that could be dealt with easily. This early definition had 2 elements-i) level of services and ii) the activities themselves. Among the levels of services, it denoted an almost "grass-roots" level of health services. At Alma Ata in 1978 the concept was extended to include the socioeconomic and political factors affecting poverty and inequality which affected health. In earlier years PHC focused mainly on rural areas in developing countries, but not the urban poor in these countries. Thus, many stakeholders saw the PHC system as a second class, rural health system. PHC began a shift in health paradigms from health as limited biomedical research, the provision of health services by professionals, and institutional care in hospitals and sub health units such as health centers and sub centers to a broader focus that included the social determinants of health. But now the PHC approach is clarified to include equitable distribution, community involvement, focus on prevention, appropriate technology, and multi sectoral approach [3]. This mandates all the countries to ensure that the health services must be made available to all and involve community for better health. The focus of health care must be on prevention since the greatest strides can be made there. Technology must be appropriate for the locale-it should be cheap, locally available, and cost-effective. Finally, a multi sectoral approach recognizes that health is affected by, housing, education, public water supplies, sanitation, sewage and waste disposal, Air and Noise pollution, Roads, Rails, Air-transport and the accidents as a consequence of commuting and in the last decade to what is known as commuting pain Index that affects the health to a great extent particularly the urban working population [3].

Most of the countries including India preferred to implement what they called as "plucking low lying fruits-under the influence of United Nations agencies like WHO, UNICEF, UNFPA USAID etc. They promoted vertical projects like nutrition, GOBI. Immunization, Family planning, outbreak containment of common communicable diseases like Cholera, Infective hepatitis etc. and eradication of small pox, Dracunculiasis and Polio". In the process it was a missed opportunity for some other key interventions like treatment of minor illnesses, newborn care, integrated management of neonatal and childhood illnesses, integrated diseases surveillance and management of common illnesses like diarrhea, ARI and mental health, life-style diseases like Diabetes, hypertension, Cancers that could have had better impact on overall health of the population.

It is in this context and the context of Sustainable Development Goals (SDGs-September -2015), that Universal Health Care (UHC) becomes an innovative Public Health strategy globally.

• **Definition:** Universal health coverage (UHC) means that all people and communities can use the promotive, preventive, curative, rehabilitative and palliative health services, of adequate quality to be effective, they need and while using those services do not get into to financial hardship [1]. UHC embodies three objectives [1]:

1. Everyone who needs services must get them, not only those who can pay-Equity
2. Health service is good enough to improve the health of those receiving services-Quality
3. The cost of using services must not put people using such services push into debt- financial risk

UHC is based on a) The WHO constitution of 1948 declaring health a fundamental human right, b) The Health for All agenda set by the Alma Ata declaration in 1978 that advocated better health and protection for the poorest. UHC cuts across all the health-related Sustainable Development Goals (SDGs) set in 2016 and brings hope of better health and protection for the world's poorest. It advocates to include all people, including the poorest and most vulnerable, cover full range of essential health services, including prevention, treatment, hospital care and pain control and costs shared among entire population through pre- payment and risk-pooling, rather than shouldered by the sick and access must be based on need and unrelated to ability to pay.

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Having been a part of health system since 1968 I have witnessed four significant facts that indicate that the Health and health care development has not been a priority of the Indian Governments both federal and provincial since Independence. They are a) the low level of investment and allocation of resources to the health sector over the years-about one percent of GDP, b) poor infrastructure and human resource development plans and execution, c) over emphasis on campaign approaches for political visibility in achieving certain goals (family planning between 1970-2000, Immunization during 1985-till now, eradication of small pox in mid-1970's and eradication of polio during 1995-2015) diverting most of the existing human and other resources under the influence of development partners and d) the uncontrolled rapid development of an unregulated private health sector, in the last two decades.

- **Essentials of UHC:** The core tents of UHC are- prioritizing the poorest and vulnerable, increased reliance on public funding, reduce Out of pocket expenditures and strengthen country's health system.

The essentials of universal Health care include National Health Policies, Health Financing for UHC, Health Statistics and Information system, skilled health human resource, Essential drugs & supplies and service delivery, quality and safety [1] (Figure 1).

Figure 1: Essential Universal health Care.

Key Challenges of Achieving UHC in India

The realization of Universal Health Coverage requires adequate healthcare financing and human resources to provide financial protection to the economically disadvantaged population by covering their medicine, diagnostics, and service costs. For decades inadequate financing for public health care and the lack of skilled human resources-where available their insecurity in the last decade, due to short time hiring on low pay packages are the major barriers towards achieving UHC in India.

Response of Government of India for Achieving UHC

Government of India has launched National Health Policy 2017 to address the challenges of Universal Health Care in particular. NITI Ayog had carefully studied and summarized the situation as: India shares 17.5 % of the world population & 2.4 % of the surface area, with a GDP (nominal) at current prices was $2,049.5 billion in 2014. Health expenditure globally was about 1067.987 US$ (9.945% of GDP) and in India it was 75 US$ (4.7% of GDP) in 2014 as against 16 USD (4% of GDP) in 1995. Out of Pocket (OOPs) expenditure on health globally was 18.15% & India 62.4%. Having analyzed the existing national health policy and programs it inferred in 2015 that almost exclusive focus of policy and implementation often masked the fact that all the disease conditions for which national programs provided universal coverage account for less than 10% of all mortalities and only for about 15% of all morbidities. Over 75% of communicable diseases are not part of existing national programs. Non-communicable diseases contributed to 39.1%, communicable diseases to 24. 4% of the entire disease burden, Maternal and neonatal ailments contributed to 13.8%, and injuries (11.8%) constituted the bulk of the country's disease burden. But National Health Programs for non- communicable diseases are very limited in coverage and scope, except perhaps in the case of the Blindness control programme [4].

NHP2017- recognized the fact that the present health interventions are powerful enough to address the health challenges but the capacity of the existing health systems across the country particularly in remote rural and urban poor localities to deliver them in a comprehensive way, and on an adequate scale is doubtful.

Therefore 7 Key Policy Shifts are made in NHP 2017 are [4]:

- **In Primary Care:** From a selective care that has fragmented secondary / tertiary care to assured comprehensive Primary Health care that has continuity with higher levels
- **In Secondary and Tertiary Care:** From an input oriented, budget line financing to an output based strategic purchasing.

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- **In Public Health Facilities:** From user fees & cost recovery based Public Hospitals to assured free, diagnostic and emergency services to all
- **Infrastructure & Human Resource Development:** From normative approaches in their development to targeted approaches to reach under-serviced areas.
- **In Urban Health:** From token under-financed interventions to scaling up with a focus on urban poor, establish linkages with national programs, achieving convergence among wider determinants of health.
- Integration of National Health Programs with health systems for their own effectiveness and in turn strengthening health systems efficiency is lacking
- Indian system (Ayurveda, Yoga, Unani, Siddha and Homeopathy-AYUSH) of health services continue to be stand-alone and demand a three-dimensional mainstreaming to be contributing for the health of the people.

Having been with the system for over 50 years I vouch to the fact that we possess as of 2019 a sophisticated set of interventions, technologies and skills required for providing health care to our people. This article tries to analyze the present status of each of these essentials, some outcomes and impact indicators and possibilities of achieving them by set target date

National Health Policies

Evolution of Health Policy in India

Sir Joseph Bhore (Health Survey and Development) Committee constituted in 1943, submitted its first ever report on health and development in the country in 1946. It was guided by its principal of 'nobody should be denied access to health services for his inability to pay' with a focus on rural areas. The report was accepted by independent India and a start was made in 1952 to setup primary health centers to provide integrated promotive, preventive, curative and rehabilitative services to entire rural population, as an integral component of wider Community Development Program, as a part of first five-year plan (1951-56) [2]. It's surprising but is a fact that after 60 odd years of good intentional statements by governments after governments India, we had to sign in 2013 for a similar proposal called Universal Health Coverage due sheer failure to implement the policy statements.

Recommendations of Bhore Committee [2]

The organizational structure of the National Health Scheme as recommended by the committee was

Primary unit: Each province had the autonomy to organize its primary units in the way it deemed most suitable for its population but there was to be no compromise on quality and accessibility. Hence, a highly dense province like Bengal may have had a primary unit for every 20,000 population but a Central Provinces (now Madhya Pradesh) which have a highly dispersed population may have a primary unit for every 10,000 or even less population unit. The deciding factor was easy access for that unit of population. Primary Health unit should have had a 75 bedded hospital served by six medical officers including medical, surgical and obstetrical and gynecological specialists. Six public health nurses, 2 sanitary inspectors, 2 health assistants and 6 midwives to provide domiciliary treatment should support this medical staff. At the hospital there should be a complement of 20 nurses, 3 hospital social workers, 8 ward attendants, 3 compounders and other non-medical workers. Two medical officers along with the public health nurses should engage in providing preventive health services and curative treatment at homes of patients. The sanitary inspectors and health assistants should aid the medical team in preventive and promotive work. Preferably at least 3 of the 6 doctors should be women. Of the 75 beds, 25 should cater to medical problems, 10 for surgical, 10 for obstetrical and gynecological, 20 for infectious diseases, 6 for malaria and 4 for tuberculosis. This primary unit should have adequate ambulatory support to link it to the secondary unit when the need arises. About 30 primary units or less should be under a secondary unit.

Secondary level care (secondary unit): The secondary unit was expected to be a 650-beded hospital (with bed distribution of Medical: 150Surgical: 200, Ob. & GY.: 100, Infectious diseases: 20, Malaria: 10, Tuberculosis: 120 and Pediatrics: 50) having all the major specialties with a staff of 140 doctors, 180 nurses and 178 other staff including 15 hospital social workers, 50 ward attendants and 25 compounders. The secondary unit besides being a first level referral hospital would supervise both the preventive and curative work of the primary units.

District Hospital

Every district headquarter was to have had a 2500 beds hospital providing largely tertiary care with 269 doctors, 625 nurses, 50 hospital social workers and 723 other workers. The hospital should have 300 medical beds, 350 surgical beds, 300 Ob. & Gyn. beds, 540 tuberculosis beds, 250 pediatric beds, 300 leprosy beds, 40 infectious diseases beds, 20 malaria beds and 400 beds for mental diseases. Many of these district hospitals would have had medical colleges attached to them.

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However, each of the 3 levels with functions related to medical education, and training including internship and refresher courses.

In 1952, India was the first country to launch a national program emphasizing family planning to stabilize the population at a level consistent with the requirement of national economy. Retrospectively it looks was a mistake that gave rise to many vertical health programs struggling for funds and in the process, overlooked the basic package of PHC. For the Five Year Plans the health sector constituted schemes that had targets to be fulfilled. Each plan period had several schemes and every subsequent plan added more and dropped a few. In the fifties and sixties, the entire focus of the health sector in India was to manage epidemics. Mass campaigns were started to eradicate the various diseases. These separate countrywide campaigns with a techno-centric approach were launched against malaria, smallpox, tuberculosis, leprosy, filaria, trachoma and cholera. Until seventh five-year plan, Government made a lot of radical statements, commended progressive measures that led to progressive thinking but unfortunately inadequate action [2].

The first national health policy: The first ever health policy statement came in 1982-83, 35 years after independence. The first policy's focus was on provision of primary health care to all by 2000 [2]. The revised 20-Point Program attributed very high priority to the promotion of family planning as a people's program, on a voluntary basis; substantial augmentation and provision of primary health care facilities on an universal basis; control of Leprosy, T.B. and Blindness; acceleration of welfare programs for women and children; nutrition programs for pregnant women, nursing mothers &children, especially in the tribal, hill and backward areas. The Program also placed high emphasis on the supply of drinking water to all problem villages, improvements in the housing and environments of the poor; increased production of essential food items; integrated rural developments; spread of universal elementary education; expansion of the public distribution system, etc [2].

Second national health policy: The second National Health Policy launched in the 2002, focused on achieving an acceptable standard of good health of Indian Population, decentralizing public health system by upgrading infrastructure in existing institutions, Ensuring a more equitable access to health service across the social and geographical expanse of India. Enhancing the contribution of private sector in providing health service for people who can afford to pay, giving primacy for prevention and first line curative initiative, emphasizing rational use of drugs & increasing access to systems of Traditional Medicine.

The goals of NHP 2002 were Eradication of Polio & Yaws 2005, Elimination of Leprosy 2005, Elimination of Kala-azar 2010, Elimination of lymphatic Filariasis- 2015, Achieve Zero level growth by -2007 of HIV/AIDS, Reduce mortality on account of TB, malaria and other VBDs and WBDs by 50 per cent by - 2010 , Reduce prevalence of blindness to 0.5 per cent by 2010 and Reduce IMR to 30/1000 and MMR to 100/100000 live births by 2010 and Increase utilization of public health facilities from the current level of <20 to >75 per cent by 2010

Achievements until NHP 2017 of 2000-01 targets: Direct estimates of MMR at the 1 national and state level were obtained from the sample registration system (SRS) since 1997. The MMR was around 301 in 2001-03 as against 200/100,000LBs a target set. IMR was 68/1000Lbs as against the target set of less than 60. The life expectancy was between 60-61 as per Census 2001. The proportion of fully vaccinated or antigen-wise coverage had also failed to reach the targeted figures as the coverages hovered around 46%. The fully vaccinated coverage was total- 45.9, Rural and Urban- 61.1 and antigen-wise coverage was for BCG-75%, DPT3-58.3, OPV3-57.3 and Measles 56.1 as per DLHS2, that reflects the coverage for children in 2000-01 [5]. The prevalence of Blindness as per 2001 Census was 2.3 % of the population. So were the targets of Leprosy and TB arrest rates missed by end of first 5-year plan.

Achievements against targets of NHP 2002 by 2015: India had achieved polio eradication in 2012, officially certified in 2014, 7 years later than the target of 2005, National Yaws Eradication Program was launched in 1996 and Yaws was declared eliminated in 2006, just a year later than the targeted date. Kala Azar's elimination deadline was pushed to 2017 and that too was missed, and it is still endemic in 68 blocks of 17 districts of Bihar and Jharkhand. The national health policy had aimed at eliminating filariasis by 2015. The deadline was extended to 2017 and now has been shifted to 2020, as continues to be is endemic in 17 States and six Union Territories. India has successfully achieved the Millennium Development Goal of halting and reversing the HIV epidemic. Despite this progress, only 43 per cent of adults living with HIV are on ART and only 74 per cent of all PLHIV in India are thought to be aware of their HIV status. Though this is well short of the global '90-90-90' target by the year 2020 (which is, 90% of PLHIV know their status; 90% of

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diagnosed individuals receiving treatment and 90% treated individuals have an undetectable viral load) [6]. Similarly, the other targets of reducing mortality on account of TB, malaria and other VBDs and WBDs by 50 per cent by 2010 and reducing prevalence of blindness to 0.5 per cent by 2010 were also missed. In 2017 16% of 10 million all TB patients and 23% of 1 million child TB cased estimated died. India's MMR was estimated to be 178 in 2010-12 as against a target of less than 100 by 2010.

The Million Death Study titled "Changes in cause-specific neonatal and 1–59-month child mortality in India from 2000 to 2015, a nationally representative survey' published online by the Lancet on 19 September 2017 shows a significant decline in cause-specific child mortality rates between 2000 and 2015 in the country [7]. The faster declines in child mortality after 2005 (average annual decline of 3.4% for neonatal mortality and 5.9% for 1 to 59-month mortality) suggest that the country has avoided about one million more child deaths compared to the rates of progress in 2000–2005. India's child mortality rate per thousand live births has fallen by 62% from 125 per thousand live births in 1990 to 47 per thousand live births in 2015. This is slightly less than the 2015 Millennium Development Goal of a 66% reduction. "if all states of India had achieved the declines seen in Tamil Nadu, Karnataka, and Maharashtra, India would have met the 2015 Millennium Development Goals" infers the report. MMR was estimated to be 140 in 2015 as against an MDG target of 140 and further declined to 130 in 2014-16 [8]. However, deaths due to premature births or low birth weight rose from 12.3 per 1000 live births in 2000 to 14.3 per 1000 live births in 2015. The increase was driven mostly by more term births with low birth weight in poorer States and rural areas. Continued progress in reduction of child mortality due to pneumonia, diarrhea, malaria, and measles at 1–59 months is feasible [9]. Maternal and Neonatal Tetanus (MNT) elimination was officially announced in August 2015. India's Life expectancy was 65 in 2006-10 and was 68.3 years in 2017. Blindness prevalence was 2.21% of the total in India as, out of the 121 Cr population, 2.68 Cr persons are 'disabled' as per 2011 Census. The incidence of blindness in 2015 was estimated to be 20 lakhs new cases of cataract every year. The achievement until 2015 indicate ambitious of targets setting and successive failures to achieve the same mainly due lack of resources, poor monitoring of the implementation and fixing accountability for the failures.

National Health Policy 2017

The focus of the National Health Policy, 2017 is to increase the overall health of the healthcare system in the country. Government has committed to improve the availability of the skilled doctors, adequate medicines and belief of the common men in the public healthcare institutions of the country. It also desires to purchase health services from private sector until its own capacity is built up in the long run. The primary objective of the National Health Policy, 2017, is to strengthen the trust of the common man in public health care system by making it patient-centric, efficient, effective and affordable, with a comprehensive package of services and products that meet immediate health care needs of most people.

Key Targets of the NHP 2017 [3], are as follows:

- Increase health expenditure of Government from the existing 1.15% to 2.5% of the GDP by 2025.
- Increase Life Expectancy at birth from 67.5 to 70 by 2025.
- Reduction of Total Fertility Rate (TFR) to 2.1 from 2.3 birth per woman in FY 2016 by 2025
- Reduce Under Five Mortality to 23 by 2025 and Maternal Mortality Ratio (MMR) from currents level's 167 to 100 by 2020. Under Five Mortality in India was 29 (per 1000 live births in 2015 as per UNICEF estimates and MMR was 130/100,000Lbs in 2014-16 as per SRS special report.
- Reduction of 40% in prevalence of stunting of Under-Five Children by 2025.
- Reduce Infant Mortality Rate (IMR) to 28 by 2019. In 2016 the IMR was 34 per 1000 live births.
- Reduce neo-natal mortality to 16 and birth rate to "single digit" by 2025. Neo-Natal Mortality (NMR) was 28 per 1000 live births in India in 2013 and CBR was 20.4 in 2016
- To reduce the prevalence of blindness to 0.25/ 1000 by 2025 from current levels of 0.5% in 2015
- Achieve & maintain elimination status of Kala-Azar & Filariasis by 2017 & Leprosy by 2018
- To reduce premature mortality from cardiovascular diseases, diabetes or chronic respiratory diseases and cancer by 25% by 2025.
- To achieve and maintain a cure rate of more than 85% in new sputum positive patients for TB and reduce incidence of new cases, to reach elimination status by 2025.
- Increase utilization of public health facilities by 50% from current levels by 2025.

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- More than 90% of the newborn are fully immunized by one year of age by 2025.
- Ensure skilled attendance at birth above 90% by 2025.
- Relative reduction in prevalence of current tobacco use by 15% by 2020 and 30% by 2025.
- Access to safe water and sanitation to all by 2020 (Swachh Bharat Mission).
- Reduction of occupational injury by 50% from 334/lac agricultural workers by 2020.
- Increase the share of State on health to more than 8% of their budget by 2020.
- Decrease in the health expenditure of the households from the current level by 25%, by 2025.

Health Financing for UHC

Who Spends for Health Care in India [10]?

The public health expenditure in India (total of center and state governments) has remained constant at approximately 1.3% of the GDP between 2008 and 2015 and increased marginally to 1.4% in 2016-17 (Table 1). This is less than the world average of 6%. Including the private sector, the total health expenditure as a percentage of GDP is estimated at 3.9% in 2014-15. Out of the total expenditure, 29% was contributed by the public sector and the rest of the health expenditure was 71%.

Indicator	2015-16	14-15
THE % GDP	3.8	3.9
THE /Capita	4116	3826
CHE% of THE	93.7	93.4
GHE% of THE	30.6	29
OOP % of THE	60.6	62.6
SSE % of THE	6.3	5.7
PHE % OF THE	4.2	3.7
THE % GDP	3.8	3.9
EDF % of THE	0.7	0.7

Table 1: Total Health Expenditures 2015.

For the year 2015-16, Total Health Expenditure (THE) for India (constitutes current and capital expenditures incurred by Government and Private Sources including External/Donor funds) was estimated at Rs. 5,28,4840 Millions. This amounts to 3.84% of GDP and INR. 4116 per capita at current prices. Of that Current Health Expenditure (CHE) was 93.7% and capital expenditures were 6.3%. Capital expenditures include all sources of Government (Union Government is Rs. 92690; State Government Rs. 239530) and External Donor Expenditures Rs. 720 million (0.7%) (Figure 2). It is good to note that Out of pocket expenditure reduced by 2.2% when compared to 2014-15.

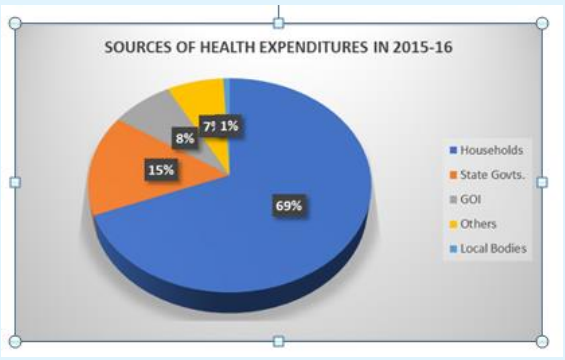

Figure 2: Source of health expenditures in 2015-2016.

Of the Health Expenditures, for the year 2015-16 the highest contribution was from households to the tune of 69%. Followed by State Governments -15.3%, Union Government - 7.8% Local bodies' share was -0.8% and other revenues-7.1%. Household's share of 69%, included OOPE - 64.7% Contribution by enterprises including insurance was -4.8% and NGOs was-1.6% [10].

Government Health Expenditure (GHE) including capital expenditure was Rs. 1,61,8630 million amounting to 30.6 % of THE, 1.18% of GDP and Rs. 1261 per capita. This amounts to about 4.07% of General Government Expenditure in 2015-16. Of the GHE, Union Government share was 35.6 % and State Government share is 64.4%. Union Government Expenditure on National Health Mission is Rs. 20,9070 million, Defense Medical Services Rs. 6,6450 million, Railway Health Services is Rs 2,213o million, Central Government Health Scheme (CGHS) was Rs. 25310 million and Ex-Servicemen Contributory Health Scheme (ECHS) is Rs. 25630 million. Expenditures by all Government Financed Health Insurance Schemes combined are Rs. 50640 million. Household's Out of Pocket Expenditure on health (OOPE) was Rs. 3,20,2110 million constituting 60.6% of THE, 2.3% of GDP and Rs. 2,494 per capita. Private Health Insurance expenditure is Rs. 220130 million (4.1% of THE). is borne by consumers [10].

How and Where the Money is Spent for Health

2015-16 Health Expenditures were attributed to variables like Pharmacies -27.9%, Private Hospitals - 26%, Government Hospitals -14.3%, incurred on other Government Providers (incl. PHC, Dispensaries and Family Planning Centers) -7.9%, Other Private Providers (incl. private clinics)-5%, Providers of Patient Transport

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and Emergency Rescue -4.4%, Medical and Diagnostic laboratories - 4.6%, and other Retailers -0.1%, Providers of Preventive care -5%. About 3.1% was spent on Providers of Health System Administration and Financing [10].

2015-16 health expenditures were attributed to Inpatient Curative Care was 34.4%, Prescribed Medicines -27.5%, Outpatient curative care - 17.3%, Preventive Care was -6.9%, Patient Transportation - 4.4%, Laboratory and Imaging services was-4.3%, Over the Counter (OTC) Medicines -0.3%, Therapeutic Appliances and Medical Goods -0.1%, and others 1.6%. About 3.1% was attributed to Governance and Health System Administration. Compared to 2014-15 (Figure on the side), the outpatient care decreased from 45.25% by 11% and inpatient care 34.96 cost remained the same. Preventive care increased from 2.19% to 6.9% and the governance cost increased from 2.1% to 3.1%. The cost of pharmacies decreased from 35.75 to 27.5% [10].

In 2017-18, expenditure on NHM was Rs 40,000 million more than what had been estimated earlier that indicated a greater capacity to spend than what was earlier allocated. A similar trend was exhibited at the overall ministry level where the utilization of the allocated funds over 100% in the last three years. In 2018-19, the Ministry of Health and Family Welfare received an allocation of Rs 546,000 crore (an increase of 2% over 2017-18), of which the National Health Mission (NHM) received the highest allocation at Rs 301,300 million (55%) of the total Ministry allocation. Despite a higher allocation, NHM has seen a decline in the allocation vis-à-vis 2017-18 [11].

A study by Post-graduate Institute of Medicine and Research (PGIMR)Chandigarh, the overall annual cost of delivering services through public sector primary and community health facilities in three states of north India (Haryana, Himachal Pradesh and Punjab) were INR 8.8 million (95% CI: 7,365,630–10,294,065) and INR 26.9 million (95% CI: 22,225,159.3–32,290,099.6), respectively (Figure 3). Human resources accounted for more than 50% of the overall costs at both the level of PHCs and CHCs. Per capita per year costs for provision of complete package of preventive, curative and promotive services at PHC and CHC were INR 170.8 (95% CI: 131.6–208.3) and INR162.1 (95% CI: 112–219.1), respectively [12].

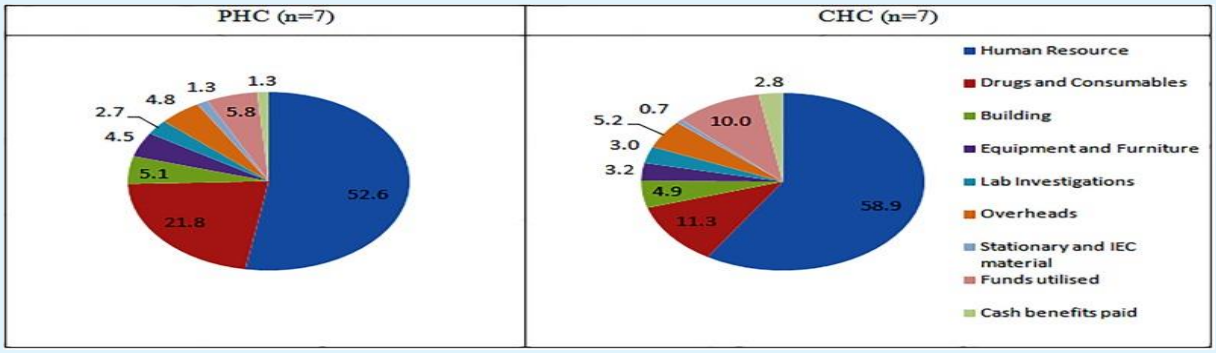

Figure 3: Distribution of Total expenditures in PHC's & CHC's by components in India.

Using the costing from PGIMR study one can estimate that to efficiently run the PHCs and CHCs only in the country we need about INR 436150 million per year and another similar amount to run sub-district, district and Medical colleges and AIIMs type hospitals in the country if public sector has to match the private sector level upgradation of all services including diagnostics, treatment and rehabilitation. Add to that resources for research, which is abysmally low until today. I have a great doubt if the Governments can mobilize such huge resources annually for next 10-15 years.

Health Statics & Information System

An efficient Health Information System is a prerequisite for effective administration of health services and achieving the stated goal of "Universal Health Coverage". Information's such as, the existing health condition of the population, morbidity, availability of health facilities, availability of specialists, doctors and other paramedical personnel and demographic data, data on environment and socio-economic variables of the population are also very important for preparing a good health plan and implementing the same. These data are

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required for assessing the existing conditions and the resources for specification of goals and targets in terms of measurable output and for a continuous evaluation of achievements. More importantly the utilization of the existing services and their effectiveness especially from the public health sector facilities will be key to demand resources from the governments. Effective administration and coordination of curative, preventive and other community health interventions required to reach UHC. For all this India relies as of now on hard copies of i) Routine administrative data generated monthly under various interventions like Family planning, Immunization, incidence, prevalence, trends and impact of the program of diseases under each of the national programs and real time and weekly data on outbreaks of communicable diseases and containment measures taken under Integrated Disease surveillance Program (IDSP) and annual progress report of the ministry of health and family welfare both at national and State levels ii) various coverage valuation studies like NFHS, DLHS, CES, MICS, etc.to assess the program reach and coverage periodical to complement the routine reporting iii) periodical monitoring and joint program evaluations, that assess the effectiveness and efficiency of various health programs and iv. Sample Registration Scheme for CBR, CDR, IMR and MMR, census every decade to assess the population parameters through Registrar General of India (RGI), National Sample Surveys (NSSO) and National Health Expenditure Estimation.

In the context of data requirements information's collected include a) Demographic data: population by age and sex, rural/urban classification, geographical distribution, occupational classification, literacy, religion, marital status, migration, etc. through Census held every decade, the last was done in 2011; b) Vital statistics: birth and death rates, infant mortality rates, life tables, general fertility rates, etc.; through National Sample Surveys annually c) Diseases: mortality rates by age and cause of death, morbidity data by age, sex, prevalence of communicable diseases, deliveries and statistics of anti-natal and post-natal care; through Disease statistics ICD 10 version from every facility, IDSP and vertical Health Programs like Tuberculosis, HIV/AIDS control, Vector Borne Diseases (NVBDCP), Leprosy , ICDS etc. d). Facilities: hospitals, dispensaries, clinics, nursing homes, diagnostic centers, laboratories, equipment's – X-ray and other diagnostic equipment's, ambulances, beds, etc. through NSSO, e) Manpower: doctors, specialists and practitioners in allopathic, homeopathy and other Indian systems of medicine, nurses, pharmacists, lab technicians other supporting staff through Rural Health statistics f) Finance: GNP, Government Revenue and Expenditure, allocation for health, budget estimates, sources of health finance, expenditure on health by voluntary agencies and other NGOs, private expenditure on health, etc. through National Budgets, National Health Expenditure Estimates.

Population enumeration and empanelment implies the creation and maintenance of database of all families and individuals in an area served by villages and urban wards. Decadal Census does this activity for entire country. In addition the household data is updated by the field staff (health workers-M &F) at health sub center level with the assistance of ASHAs and AWWs in the first quarter of every fiscal year during April and May from as far back as since independence, to the best of my knowledge in my 51 years of work experience in the country. The urban data relies only on Birth and Death registration scheme, and household surveys in some urban slums under Integrated Child Development Scheme (ICDS since 1975). The main shortcomings include completeness, age reliability due to inability to share exact date of birth by illiterate population, exact residential address to trace when in needed, desegregation of resident and non-resident population. Most often people seeking referral services from the urban based secondary and tertiary care give local addresses and therefore tracking them becomes difficult. The annual surveys and periodical household contacts also involves active communication to make residents aware of the facilities under various Social and Health schemes.

Health Cards and Family health Folders: These are made for all service users to ensure access to all health care entitlements and enable continuum of care. The health cards /OPD case sheets are given to the families and individuals. The family health folders are kept at the health sub centers or nearby PHC in paper and/or digital format. However, since most of these records are made manually, the legibility and retainment of these records by beneficiaries and families is poor. The goals of electronic Family Health Cards / Folders have not been achieved in multiple efforts under many programs like NMEP, Immunization, IDSP, Family Planning, Mother and Child Tracking card under RMNCH+A {(RMNCH+A approach was launched in 2013 and it essentially looked to Mother & Child Tracking System (MCTS) electronically}. The opportunities of the Health and Welfare Centers and national Health protection scheme envisaged under NHP 2017 may facilitate this process to a great extent.

The National Health Policy (2017) of India has three distinct goals:

- The first and foremost goal is to use electronic mediums for gathering district-level health database by

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2020 that will avoid paper-based methods of collecting the data, thereby enhancing the use of computerized tools for the betterment of hospital functionality.

- The second goal is to reinforce health surveillance system by establishing Registries that help in tracking the disease and epidemiological profiling of diseases.
- The third goal focuses towards the establishment of federated national eHealth architecture. Ministry of Health and Family welfare, GOI proposes to set up a National eHealth Authority (NeHA) for standardization, storage and exchange of electronic health records of patients as part of the government's Digital India program in India soon.

This initiative has a vision of better health care outcomes in terms of access, affordability, quality, lowering of disease burden and efficient monitoring of health entitlements to the citizens. Existing IT platform experiences in Immunization, IDSP, RMNCH +A & ANMOL suggest that if the initial data entry is outsourced and updating left to local workers this is achievable. The communication components must be handled by local service providers.

Skilled Health Workforce

Human Resources for Health (HRH) are defined as "the stock of all individuals engaged in the promotion, protection or improvement of population health". This includes both public and private sectors and different domains of health systems, such as personal curative and preventive care, non-personal public health interventions, disease prevention, health promotion services, research, management and support services.

Health being a State Government subject and as they spend more than double the amount the Central Government on the health care but have no human resource plans or planning departments. There are issues related to numerical and distributional imbalance, inadequate training and technical skills, improper deployment, inefficient skill mixes of health workforce often coupled with poor personnel management, non-existent of career structures, inadequate staff supervision, lack of motivation, poor working environment and lack of opportunities for personnel development [13].

India has a severe shortage of human resources for health. It has a shortage of qualified health workers and the available workforce is concentrated in urban areas. Bringing qualified health workers especially specialist doctors like anesthetists, Gynecologists, surgeons to referral hospitals and even general duty doctors for PHCs and CHCs to remote rural, and underserved areas is very challenging. Many Indians, especially those living in rural areas, receive care from unqualified providers even today. The migration of qualified allopathic doctors and nurses is substantial and further strains the system. The state Governments are permitting Medical Colleges /Nursing, Pharmacy, Lab Technicians, nutritionist, dieticians, psychologist, physiotherapist etc. colleges and schools both in Govt and Private sector so much so that some of them do not even have adequate infrastructure and staff but are churning out half-baked doctors and paramedical staff. The Medical Council of India and other similar bodies have become silent spectators and are not able to maintain the quality of training. Little attention is paid during medical education to the medical and public health needs of the population, primary health care provision. The rapid privatization of medical and nursing education had implications for its quality and governance in the last 2 decades. The worst impact on HRH has come from the short cut measure like contractual staff recruitment at all levels in the last two decades.

Process of HR Recruitment

The health workforce comes from medical colleges both allopathic and AYUSH with basic degrees like MBBS, BAMH, BHM, BDS etc. Pharmacy and nursing graduation and diplomas. The medical graduates are recruited through state public service commission & union public service commission. The other para-medical staff like nurses, pharmacists, laboratory technicians, X-rays, scanning, ophthalmic and other support staff are recruited through state Health and Family Welfare departments recruitment committees. Health assistants (male & female) come through in-service training. Since last 2 decades recruitment on contractual basis has become a norm. Several studies have informed high attrition rates, because of the security of the job and lack of any career progression path. This also has led to such staff is not being well motivated and some of them have formed unions to demand "permanent" jobs in the governments.

The weakest link in the current health system about HRH across the country is huge vacancies at the first level paramedical supervisory staff who can provide on job support to improve the skill of the workers. We have seen deterioration in the strength of this cadre and more importantly no efforts for induction (as was done in mid-1970's for a short period under minimum needs program) of fresh recruits in the last 2 decades. Hardly one half of the sanctioned supervisory staff and male health assistants are in position. Most of existing supervisory staff are promoted from the cadre of health workers, in

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their 50's with poor physical health, left with very low levels of energy and enthusiasm for field visit and guiding the field staff. The country must do something innovative on this front. The universities can be asked to offer degree courses in Health Sciences (just like home science) or Public Health and brought in the health system so that supportive supervision improves. This task is expected to be done by medical officers but neither they have time from their clinical and other administrative responsibilities, nor they are inclined and equipped to do supportive supervision.

In-Service Trainings

To compensate for the weakness in medical and nursing and other paramedical education, public health sector provides for pre-service and In service trainings through National Institute of Health and Family Welfare (NIHFWs), State Institute of Health and Family Welfare (SIHFW) and Regional Institute of Health and Family Welfare the induction and periodical trainings. Development partners also support some of the important intervention-based skills like planning, implementing & monitoring training packages. Doctors of indigenous systems of medicine (AYUSH - (Ayurveda, Yoga, Unani, Siddha and homeopathy) are provided training on jobs / tasks performed by medical officers at PHCs including Immunization, IDSP, conducting deliveries, IUD insertion and management of national health programs as quite a few PHC are headed by such doctors. Almost every national program orients the field workers for implementation skills and knowledge of the intervention periodically- periodicity depends upon the priority to the program in a plan period. lack of investments in training for the contractual staff is an issue in the recent times.

The country has seen lots of training on issues related to immunization (general, cold chain, vaccine handlers, vaccine logistics, vaccination techniques, immunization planning for polio eradication and routine immunization) Newborn care, IMNCI, IDSP, IUD insertions etc.) in the last decade. The basic challenge in the coming period is the skills of integrated planning for comprehensive primary health care, moving away from vertical program planning since last 6 decades. Country has no model yet to follow or there is not even an attempt to develop models for integrated planning for UHC. Capacity building of the staff at the primary health care level (Health and Wellness care Centers) for the newly added interventions like running OPDs for 6 hours a day, managing NCD, VBDs, mental health, digitalization of service data and counseling for enabling families for self-care will be a big challenge. The experience of building capacity for the management of Malaria, diarrhea, Pneumonia, TB and Integrated management of neonatal and childhood illnesses (IMNCI in 1994-2005) over the last 3 decades indicate that there exists the potential to build such technical skills, but the logistics of holding large number of such training, ensuring quality and on-job support for continued learning and enthusing commitment will be a big hurdle. The public sector secondary and tertiary care facilities also face the shortage of technicians, who can be delegated some of the task being done by doctors.

To address this challenge, we need a comprehensive national policy for human resources to achieve universal health care in India. The public sector will need to redesign appropriate packages of monetary and non-monetary incentives to encourage qualified health workers to work in rural and remote areas. Such a policy might also encourage task-shifting and mainstreaming doctors and practitioners who practice traditional Indian medicine (Ayurveda, Yoga and Naturopathy, Unani, and Siddha and homoeopathy) to work in these areas while adopting other innovative ways of augmenting human resources for health. At the same time, additional investments will be needed to improve the relevance, quantity, and quality of nursing, medical, technicians, pharmacists and public health education in the country. This will lead to availability of new fresh graduates or trained staff for recruitment for the program implementations on long term basis. The country has many universities and public health schools who can chip in for such human resource development but both the national and state governments need to take a policy decision for long term appointments and periodical skill upgradation and replacement of the staff due to natural attrition. However, given the timeline of another 12 years the saturation of skilled human resource all through in health sector particularly for remote rural areas and even specialists for sub-district hospitals is unlikely to happen and private sector may become more powerful.

Essential Drugs & Supplies

Under the Constitution of India both the Central and States Governments have concurrent duties for drug control, safety, quality and efficacy. The main objective of the National health policy 2017 is to ensure availability of quality medicines at a reasonable cost to the society and to promote development of domestic pharmaceutical industry. Access to essential medicines remains limited and inequitable, therefore National Health Assurance Mission (NHAM) has committed for providing 50 priority essential medicines available at all levels to the citizens of India living below poverty line. I strongly believe that free

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provision of essential drugs to all patients accessing public health facilities, while not costing so much to the government, would bring huge savings to the patients, and is the easiest and quickest option to reduce out-of-pocket expenses for the poor.

There are four main sources of funding for the procurement of essential medicines and supplies in the public health sector of the country. Firstly, the State Government provides funds in its budget for purchase of medicines and supplies. Secondly a grant-in-aid received from the Government of India as part of its flagship program National Health Mission (NHM), thirdly, the untied funds available with the health facility committee can be used for purchasing medicines with a minor contribution comes from the local communities or philanthropists. Some items like all Vaccines, IFA, Vitamin A concentrate, IUDs come from GOI based on the expected beneficiaries [13]. The procurement of medicines may be centralized at state level or may be decentralized to the district level. For example, Kerala it is completely centralized, Tamil Nadu follows a mixed procurement system (80 % centralized and 20 % decentralized) and Punjab and Haryana have decentralized the process to district level societies [13].

Public Health facilities do get normative drug packages and other supplies from the state drug stores. Most of the drugs for primary and secondary care are available free of cost to patients. Overall availability of medicines is estimated to be around 50% of the annual need [12]. Based on a recent study the cost of drugs and supplies is about 21.5% (about INR 2 million per year) of total expenditures on PHCs and about 11.3% (around INR 3.5 million per year) of total expenditures of CHCs in India [12]. One can find at least one drug each in the categories of analgesic/antipyretic, anti-helminthic, antibiotics, ORS, vaccines, antacids, dressing materials, anti-spasmodic, anti-emetic, anti-hypertensive, anti-asthmatics and uterotonics are universally available in public sector facilities. Drugs like thrombolytics, anti-cancer, anti-viral, anti-diabetes and other endocrine medicines, anesthetics, anti-depressants, will be available in major hospitals, district and some sub-district level public sector facilities. At any given time, non- availability of some drugs and excess of some other locally irrelevant items is very common. Once a supply exhaust, stock out position will spread 3-6 months and in about 10% of fast-moving drugs for more than 6months. With the expansion of curative services from Health and wellness centers as per NHP 2017 guidelines, the supply of essential drugs and other supplies will increase further and may pose a big challenge to the health system particularly in Empowered action group states like UP, Bihar, MP, Jharkhand, Assam [14].

The challenge faced include lack of policy framework, poor selection, Lack of implementation of Standard Treatment Guidelines (STGs), lack of transparency in selection of medicines and Inadequate human capacity. The quantification of the quantity of drugs and supplies required annually is the key challenge due to Unreliable need and consumption data, Unreliable morbidity and mortality data, Irrational adjustment to budgetary constraints, irrational ineffective prescribing, suppression or distortion of demand, Quantification exercise inherently imprecise because of variable, availability of medicines, prescriber behavior & practice, consumer numbers, preferences etc. There also procurement issues like Poor specifications, Unclear procedures, No reliable quantification of drug needs, Supplier uncertainty and Under -utilization of the technology and quality assurance. Supply chain management issues like Unclear procedures, Unreliable/lack of transport, lack of storage houses, Multiplicity of medicines supply channels from different sources, Poor coordination between distributor, SCM and program managers and inventory management issues include Lack of systems, Lack of human capacity, Lack of tools for monitoring inventory, Unreliable data on consumption/utilization. Last but not the least Monitoring to track availability rarely undertaken or no such system is in place [14].

The national drugs policy to open the market in India has generated many brands of medicines, but there are still not enough available in the pharmacies. In theory, competition within India's vast market for generic drugs should ensure that essential medicines are available in private retail outlets at a price people can afford. However despite there being multiple approved products listed in India databases, few are available in private pharmacies at a price people could afford.

Pradhan Mantri Bhartiya Jan Aushadhi Pari Yojana Kendra (PMBJPK) [15]

National Sample Survey Office survey on healthcare, in 2014, indicated that the medicines emerged as a principal component of total health expenses 72% in rural areas and 68% in urban areas. PMBJPK is a campaign launched by the Department of Pharmaceuticals, Govt. Of India, to provide quality medicines at affordable prices to the masses through special Kendras (Centers) known as Pradhan Mantri Bhartiya Jan Aushadhi Kendra. They provide generic drugs, at lesser prices but as good as expensive branded drugs in quality and efficacy. Bureau of Pharma Public Sector Undertakings of India (BPPI) has

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been established under the Department of Pharmaceuticals, Govt. of India. Procurement of drugs is only from WHO (World Health Organization) and GMP (good manufacturing practices) compliant companies. The Scheme can have negative impact on Pharma companies which resort to established unholy nexus of doctors and drug industry. Large pharma companies are not keen to participate in this as it would disturb their existing cost structure and directly cannibalize their products in the retail market. Scheme will be beneficial for small scale industries and improve their quality. It can foster rise of pharma industry in the nation which can compete globally with their assured quality and competitive cost. The ability of the government to create more suppliers for scheme will depend on the guarantees the government gives for both timely payment and specified minimum offtake. Pharma companies would decide on the products they would like to focus on, leaving out products covered under scheme. There are about 5000 centers as of now covering almost all the district headquarters, being expanded in phased manner. There are about 425 generic drugs available covering major health problems in the country like diabetes, hypertension, analgesics, antibiotics etc. This has reduced the expenditure on drugs by 60-70% among its users.

Service Delivery, Quality and Safety

India has a healthcare system, albeit with inequitable coverage and quality and the glaring deficiency is the lack of public health. Public health is most impactful when it is promoting policy, examining the social determinants of health, and investigating the root cause of disease. Organized public health addresses and redresses determinants of ill health at the community and environmental levels. It protects health by ensuring all diseases are continuously monitored, and by deploying appropriate interventions for the timely prevention and control of those that pose a threat to people's health. These functions require the implementation of biomedical, environmental, and social interventions such as child nutrition, immunizations, vector control, environmental protection- Minimizing air pollution, supply of safe water and sanitation including sewage disposal.

Public health is a long-term investment that is yet to be constructed and expanded to realize the social and economic benefits alluded to above. Nationwide public health will be essential for achieving equity in health. Public health structures will be visible to the public eye but their achievements invisible as a public health success is when disease does not occur i.e. small pox, and Polio eradication. No one can observe the disease or the outbreak which was prevented; consequently, public health is neither recognized by media, public or even the government, nor rewarded by the profession.

The impact of healthcare (sickness care!) on the other hand is on individual, is immediate and is visible to the public and political leadership. Since, in India healthcare & public health compete for attention of a single system, the needs of public health were neglected for years.

Changed Strategy of Service Delivery in NHP 2017

To move from sectoral and segmented approach of health service delivery to a comprehensive need-based health care service NHP 2017 aims to undertake path breaking interventions to holistically address health (covering prevention, promotion and ambulatory care), at primary, secondary and tertiary level. The changed strategies of providing comprehensive Primary Health Care (CPHC) and National Health Protection Scheme (NHPS) are the backbones of the new strategy [16]. The creation of 1,50,000 Health and Wellness Centers that will bring health care closer to the homes of the people. These centers will provide Comprehensive Primary Health Care (CPHC), covering both maternal and child health services and non-communicable diseases, including free essential drugs and diagnostic services (Figure 4).

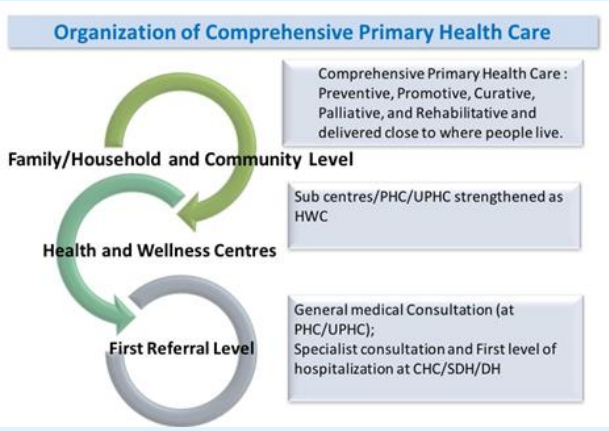

Figure 4: Organization of comprehensive primary health acre.

The evidence of limited budgetary allocations for infrastructure development and capacity building and competing priorities among various interventions over last 60 years makes one to feel that it is to be too optimistic. While the number of Health Sub centers and PHCs have increased in number, their locations are not necessarily doing justice for unreached population.

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Majority of these institutions do not have their own buildings and run from small rented places, there by privacy of the patients is compromised. At least one thirds of doctors and nursing staff do not stay in their designated places and therefore are not available round the clock for providing services. The upgradation of 150,000 Sub centers and PHC's appears to be daunting task given resource crunch and logistics management.

Capacity building of the staff at these level for the new tasks added will be another big challenge. The experience of building capacity for the management of Malaria, diarrhea, Pneumonia, TB and Integrated management of neonatal and childhood illnesses (IMNCI in 1994-2005) over the last 3 decades indicates the potential to build such technical skills, but the logistics of making available diagnostics, drugs, equipment and referral mechanism is not going to be sorted out easily. Management of Common Communicable Diseases and Outpatient care for acute simple illnesses and minor ailments, Screening, Prevention, Control and Management of Non-Communicable diseases, Care for Common Ophthalmic and ENT problems, Basic Oral health care, Elderly and Palliative health care services, Emergency Medical Services and Screening and Basic management of Mental health ailments are totally new areas at this level of institutions and capacity building will be a herculean task though not impossible.

The second component is the Pradhan Mantri Jan Arogya Yojana (PM-JAY) which provides health protection cover to poor and vulnerable families through both public and private sector facilities. Upgrading, the capacity of Public Health facilities for secondary, tertiary and super specialty care in the next decade is yet another ambitious plan as one has seen the progress over last 5 decades. One has seen over the years across all sates the fact that there is inordinate delay in equipping newer institutions with functional equipment, skilled human resource and latest technologies for diagnosis and management. Even teaching institutions may have to wait from 5-10 years for newer diagnostic and therapeutic equipment's after they hit the private market. The observations of developing first referral units (FRU's) for maternal and childhood emergencies in last decade and half at district and sub-district level are clear indictive of continued challenge. GOI started opening institutions called "All India Institute of Medical Sciences" in larger states, but their pace has been too slow to meet the referral demand by 2030 mainly due to the difficulty in getting skilled professional human resources. Over a decade's efforts has not been able to get even one such AIIMS anywhere closer to their role model institute of AIIMS New Delhi is another evidence of the challenges in the next decade too.

The Private Health Care System

The private sector in health has many positives, yet what is universally acknowledged is that it is weak on ethics and patient safety or patient's wellness. Over-diagnosis, denial of treatment, overmedication, unnecessary surgeries and the use of unethical means with the aim of making profits has become commonplace in the public discourse in India. This has resulted in the virtual breakdown of trust between private providers and patients. The shutdown of Max hospital in 2018 by the Delhi government for close to a month without much justification is indicative of the government's failure to come up with laws, regulations, protocols, systems and procedures that will incentivize good behavior and make unethical conduct unprofitable and not worthwhile.

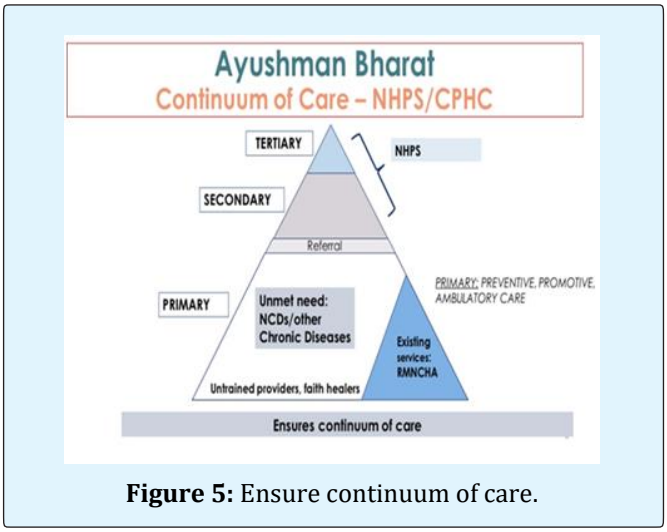

Figure 5: Ensure continuum of care.

In such a messy ecosystem, Ayushman Bharat (Figure 5) has been parachuted as a milk and honey deliverer from maladies. Recently the Union cabinet took a decision to make the NHA an autonomous body to design, implement and monitor the scheme. Though it is to be governed by a Board chaired by the Union Minister of Health, with the Health Secretary a member, there appears to be no link with the Ministry. Such an institutional design has the potential to cause severe distortions unless the linkages and functional responsibilities are clearly spelt out [17]. Four major concerns are:

- Pricing: The pricing of services, a contentious issue between the hospitals and the NHA, is proposed to be outsourced to a commercial firm. Since pricing is the heart of the success or failure of the scheme's financial

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sustainability, governments must keep a tight control upon and undertake it in consultation with academic institutions and actuaries working with government to arrive at pricing strategies.

- The proposal to outsource monitoring, empanelment, settling of claims, grievance redressal all vital functions of a government body to commercial companies raises concern, as India has very weak privacy and data protection laws, not to talk of the ability to enforce them.
- The detailed guidelines with the contract agreement to hand over large portions of district hospitals to private investors to establish the supply of specified services cardiac, cancers, respiratory etc. suggests a hybrid model that has no precedence. it is apprehended and with justification, that it will destroy the public hospital system in India and deepen the control of the private sector and create monopolies rather than a competitive environment, adversely impacting the cost of care.
- The concessions land, viability gap funding up to 40 per cent of the project cost, concessional tariffs for water and electricity etc. being offered to attract private investment in supply deficit areas, mainly in Tier 2 and 3 cities, are again problematic. While incentives need to be provided, the question is- to whom? Are they to support non-profit and small and medium hospitals to grow or for corporates to deepen their footprint? Who benefits in such a game of musical chairs? Consolidation of corporate tertiary hospitals, that provide nearly three quarter of tertiary care, is taking place at a furious pace [18].

Other Initiatives that effect UHC

Swachh Bharat Initiative

The Swachh Bharat Abhiyan is a nation-wide campaign in India launched on 2nd October 2014, that aims to clean up the streets, roads and infrastructure of India's cities, towns, and rural areas by 2nd October 2019. As of February 2019, 60.33 % increase in Households with Toilet compared to 2014. All but 3 States of Goa, Andhra Pradesh and Odisha have household toilet coverage over 70% and 616 districts have declared themselves Open air defecation. The achievement subject to verification is a big leap in sanitation and will impact the health of the people.

Smart Cities Mission (SMC)

The Union government launched Smart City Mission on 25 June 2015 to upgrade 100 cities. The projects focus either on a particular area of the city or the entire city. GOI will give each of the cities Rs 100 crore every year for five years, with an equal contribution coming from the state government and the urban local body combined. SMC is carried out through a special purpose vehicle (SPV), registered under the Companies Act, 2013, instead of through a municipal corporation, and encourages private investment. The project will provide for affordable housing, integrated multi-modal transport, creation and preservation of open spaces, and waste and traffic management, among others that will improve Urban environment, reduce commuting pain and help improve the health status of the people.

National Nutrition Mission

In 2017, the Government of India approved National Nutrition Mission (NNM) a joint effort of Ministry of Health & Family Welfare and the Ministry of Women & Child development a life cycle approach for interrupting the intergenerational cycle of under nutrition. Nutrition being the basic need for health and with prevailing malnutrition in the country, this intervention will impact the health of the poor children and women in the country.

National Medical Commission

On December 15, 2017, the Government of India approved the National Medical Commission Bill 2017, it aims to promote area of medical education reform. The reform to be implemented from August 2019, unfortunately, recommends doing away with syllabus of turning out Family Physicians in preference to preparing the basic graduates for post-graduation in specialized subjects.

Ayushman Bharat

In August 2018, the Government of India had approved "Ayushman Bharat"-National Health Protection Mission launching the scheme on 23 September 2018. It is a centrally Sponsored Scheme contributed by both center and state government at a ratio of 60:40 for all States, 90:10 for hilly North Eastern States and 60:40 for Union Territories with legislature. The center will contribute 100 % for Union Territories without legislature. Ayushman Bharat (AB) is an attempt to move from sectoral and segmented approach of health service delivery to a comprehensive need-based health care service. It aims to undertake path breaking interventions to holistically address health (covering prevention, promotion and ambulatory care), at primary, secondary and tertiary level. It adopts a continuum of care approach, comprising of two inter-related components.

This initiative is expected to reduce the OOPs in 2019-20. Around 86% of rural population and 82% of urban

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population were not covered under any scheme of health expenditure support until 2018. Among the total number of persons covered under health insurance in India, 75% are covered under government-sponsored health schemes and the balance 25% are covered by private insurers. Due to high out of pocket healthcare expenditure, about 7% population is pushed below the poverty threshold every year. The focus of the scheme is to take care hospitalization; secondary and tertiary care with the sum assured now a whopping Rs five lakhs and has provision for purchasing it from the private sector where such services are not available in public sector. Primary health care cost is expected to come down by another scheme of upgrading the health sub-centers and primary Health centers, to be called as Health and Wellness centers. These initiatives will reduce the OOPs in 2019-20. However, one wonders if they would answer the out of the pocket expenditure made by consumers on buying medicines and outpatient care in private [19].

What can be Expected by 2030

Reviewing UHC efforts and other domains of SDGs to be achieved, Universal Health Coverage (Table 2) is achievable for Urban India and most of Rural India. Some 20% of remote rural and tribal population may still lag in UHC. The mortality rates targets appear to be achievable in country as whole and particularly in urban India. Some remote rural districts and desegregated urban poor pockets may lag. Large inequities in U5 mortality across states and between social and economic groups may inhibit the acceleration in Child mortality progress. Given the fact that MMR was 130 /100,000LB and the recent trends in annual reduction rate, despite continued presence of several risk factors like low levels of maternal education, early childbearing and inadequate birth spacing will be achieved. IMR of 34/1000LB (and estimated U5MR of 50) in 2016, IMR can also be hoped to achieve these goals. Promoting mental health, minimizing substance-use, ensuring access to general sexual and reproductive health services feasible to achieve but the targets of Ending epidemics, Halving deaths due to accidents, substantial reduction of harmful effects of water, air and noise pollution and Increasing health resources appear to be a dream to come true.

Table 2: Expected Results by Domains of SDGs.

Sl. No	Targets by Domains	Expected Results by 2030		
	Geographical Desegregation	Rural India	Urban India	Total India
1	**Mortality Reduction Targets:** 1. I. Reduction of MMR (<70) 2. II. CMR (<25) 3. III. NMR (<12) 4. IV. Reduce by one third premature mortality from NCDs 5. V. Halve the number of global deaths from road traffic accidents 6. VI. Substantially reduce the number of deaths from hazardous chemicals and air, water and soil pollution and contamination. Deaths from CDs (VBDs etc.?)	N	Y	Y
		N	Y	MB
		N	Y	MB
		Y	MB	Y
		Y	N	Y
		Y	N	**Y**
2	**Ending the epidemics:** 1. AIDS,	**Y**	**Y**	**Y**
	2. Tuberculosis	**Y**	**Y**	**Y**
	3. AIDS Malaria (VBDs)and neglected tropical diseases TB & TB and combat hepatitis,	**Y**	**N**	**MB**
	4. water-borne Hepatitis diseases and other communicable diseases. WBDs	**N**	**Y**	**N**
3	**NCD:** 1. Promote mental health &	**Y**	**Y**	**Y**
	1. Halve injuries from road traffic accidents	**Y**	**N**	**N**
	2. Substantially reduce illnesses from all below	**MB**	**N**	**N**
	3. hazardous chemicals,	**Y**	**N**	**N**
	4. air, water and soil pollution and contamination.			
4	**Substance abuse: 1.** Strengthen prevention & treatment of narcotic drug abuse 2. harmful use of alcohol.	**Y**	**N**	**N**
		N	**N**	**N**
5	**General Sexual & Reproductive Health-Care Services:** Ensure universal access to G/S/&RCH Services	**N**	**Y**	**MB**
6	**UHC:** Achieve universal health coverage	**MB**	**Y**	**MB**

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7	**Research and development:** Support the research and development of vaccines, health equipment, tools & medicines	**N**	**Y**	**Y**
8	**Increase Health Resources:** Substantially increase health financing & Health workforce	**N**	**N**	**N**
9	**Strengthen the capacity:** Of all Countries for Tobacco control, early warning, risk	**MB**	**Y**	**Y**

Legend: Y=Yes Achievable, MB= May be or uncertainty and N0- Not achievable by 2030.

Conclusion

If policy makers have the will- India has the skills & resources to provide UHC. Low public outlay so far had made it impossible for the public sector to respond to the growing health needs of the population. Financial resources cannot be cited as a constraint nor fragmented as we are seeing standalone Swachh Bharat Cess to raise resources for sanitation and funds and special organizational set up for Ayushman Bharat initiative to purchase services from private sector.

Government must realize that a robust public health system acts as first defense by preventing outbreaks, if occur controlling the spread soon and limit the damage of endemic diseases. What is needed is transformational initiative in health financing, public private mix in service delivery & strengthening Primary Health Care to take to people's doorsteps. The health system has prioritized interventions for preventions of untimely deaths, diseases, disability limitation & rehabilitation in NHP 2017 and not just RMNCH+A. Approach to health care has been committed to take comprehensive view, pay attention to broader determinants of health such as sanitation, safe water, air & noise pollution, roads and transport. What is needed is aggressive implementation, requisite timely supplies of drugs, diagnostics, human resource improvement to meet the new demands and on job support and motivation.

There is simply nowhere in India where the buck stops today!!! As we have seen failure to meet the targets set year after year and either they are not met or met after lot of delay indicate the absence of accountability. Accountability is the need of the time. It can be enforced only when there is clear chain of command. If technological advances are introduced in public sector much faster than in private sector and thus, they have been running a handicap race all through these years. If only investment in public sector facilities for upgradation of the institutions be quantified with timeline, they can catch up with private sector in next 10-12 years. This then will be a fair play in competing with Ayshman Bharat with better resources and management structure.

India has emerged as the global pharmacy for inexpensive drugs and vaccines and the goal now is to make available in every village and urban community in the next decade.

Last but most important is to involve people in deciding health priorities, own interventions through IEC social mobilization and community system strengthening to lower inequities.

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