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MORBIDITY TRENDS IN INDIA: INSIGHTS FROM NSS ROUNDS

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Abstract.

Morbidity patterns have been undergoing tremendous changes in India. Omran's study on epidemiologic transition brings forth a peculiar model in disease modification where with economic development, ailments associated with deprivation give way to diseases of affluence which are chronic and man-made. This study has been undertaken to investigate India's experience in epidemiologic transition employing the morbidity data collected from various NSS rounds on health. The probe discloses that India is trapped in the dual burden of both infectious and chronic persistent diseases, which puts enormous pressure on the health system of the country.

1.Introduction

Health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity (WHO, 1948). As defined by Sen (2001), health is a is a basic capability that gives value to human life. Good health is universally acknowledged to be of intrinsic value and therefore contributes an integral element of development (Report of the National Commission on Macroeconomics and Health, 2005). A number of studies on the alliance between health and economic development (Bloom and Canning 2013, Bloom, Canning, Seville, 2004, Rocco et al, 2021). brings forth the inference that improvement in health is not merely the byproduct of economic development, but an input for economic development.

As health is an inevitable ingredient in the development recipe, deviations from health, morbidity, could handicap an economy in its trajectory to progress and welfare. Morbidity reduces individual productivity, income and human capital development which results in lower total output and a decline in economic development (Sachs, 2002). Through the life cycle link, poor health in childhood creates a negative impact on adulthood outcomes and productivity (Sachs, 2002) which cumulatively reduces the growth of a nation. Intergenerational spillovers of diseases are another link via which an economy regresses. At the firm level diseases hinder a firms profitability discouraging domestic and foreign investment (Lorentzen et al, 2008). Economies suffer by diminution in GDP growth ascribed to lower total factor productivity, technological achievement and innovation (Gelade, 2008)

There is a bidirectional pathway between morbidity and economic development, one reinforcing the other. Abdel Omran's 1971 Theory of Epidemiological Transition (Omran, 1971) traces the complex changes in the pattern of health and disease which has paralleled the transitions in the developed countries of the world. The theory propounds that as economies progress; pandemics of infection are replaced by chronic, man-made diseases as the main cause of death. Omran's theory tracks down the evolution of diseases as an attribute of modernization and development based upon the development experiences of different nations and argues that though the pace of transition differs in different countries, ultimately globally communicable diseases give way to non-communicable diseases. The evolution of diseases as linear universal model prophesied by Omran did not transpire and the present study attempts at an examination of the morbidity profile of India to recognize whether Omran has been visionary.

2.Literature Review.

Santosa et al, (2014) conducted a Medline literature review from 1971 to 2013 to contextualize the theory with empirical evidence to gauge the original propositions underlying the theory. The authors conclude that though the theory of epidemiological transition is in vogue, the compliance of the theory with empirical findings is only partial and call for a revised theory with stronger evidential support.

"Beyond the transition framework; the cross continuum of health, disease and morbidity framework" (Defo, 2014) expounds that the epidemiological transition theory has been useful in laying out an overarching perception on changing demographic and disease patterns in developed countries in the 1950s. But the theory cannot be considered as a universal description or prediction regarding population health patterns that could be of value in the formulation of health policies in contemporary societies, as these societies are quite distinct.

India's advances in epidemiological transition have been the objective of study by Yadav, (2014). He explores this by evaluating the structural changes in the pattern of diseases and progress in mortality transition and concludes that the country experiences a dual burden of diseases associated with a remarkable transition in the age, pattern of morbidity and mortality together with structural changes in disease patterns

Omran's theory is potentially misleading because Mercer (2018) detects that even now infections have been confirmed as causes of various chronic diseases. He recommends research into infections and other causes of conditions frequently recorded as the underlying cause of death. Mercer opines that an updated theory of epidemiological transition aimed at understanding and not just

describing changing patterns of diseases and mortality can encompass the role in different morbid conditions of infections contracted over the life course of individuals.

Kunitz (1990) recognizes the value of generalizations about the theory of epidemiological transition, but warns against a holistic assumption that the stages would be the same everywhere. He advocates research in social, cultural, and behavioural determinants of health and diseases to inform the development of appropriate health strategies.

The critique of Omran's theory emphasizes that epidemiological transition is not a uniform, universal, linear and inevitable process. The evolution and progression of morbidity across the globe is context driven, unpredictable, and volatile and disease patterns does not follow rigid compartmentalization. Omran's theory failed to explain later developments in morbidity.

3.Methods

National Sample Survey Office (NSSO,) Ministry of Statistics and Program Implementation, Government of India, has been conducting periodic surveys on social consumption relating to health which are primary source of data on basic qualitative information on healthy sector. The important rounds like the 28th round, 52nd round, 60th round, 71st round and 75th round are examined in the study to get at information regarding morbidity trends prevailing in the country at the time of the survey.

3.1National Sample Survey 28th Round: October 1973- June 1974.

In the survey, 1.29 lakhs of rural and 0 .67 lakh urban households were investigated to gather morbidity data. Incidence rate, which measures the frequency of morbidity commencing during the reference period and prevalence rate a rate that measures the frequency of mobility prevailing in the reference period, was used to estimate morbidity.

Table 1

Number of Persons Suffering from Chronic Diseases

Per 100,000 Persons (All-India, Rural & Urban)

Sl. No.	Type of Chronic Disease	Rural	Urban
1	Tuberculosis	117	137
2	Leprosy	40	25
3	Syphilis	8	6
4	Cancer	12	14
5	Thyroid trouble or Goitre	22	16
6	Diabetes	39	80
7	Mental illness	19	18
8	Epilepsy	28	17
9	Rheumatic fever	45	26
10	High blood pressure	44	132
11	Bronchitis	41	43
12	Asthma	376	355
13	Peptic ulcer	89	66
14	Kidney stone or Kidney trouble	37	40
15	Arthritis	22	17
16	Rheumatism	251	146
17	Stroke	13	13

Sl. No.	Type of Chronic Disease	Rural	Urban
18	Piles	65	61
19	Others	194	128
20	Not recorded	636	629
21	**All types**	**2098**	**1962**

Source: NSS,28th Round

Table:2

Incidence and Prevalence Rates of Temporary Ailments per 1000 persons

Sl. No.	Type of Ailments	Incidence Rate (Rural)	Incidence Rate (Urban)	Prevalence Rate (Rural)	Prevalence Rate (Urban)
1	Cholera	0.03	0.03	0.05	0.04
2	Typhoid	0.12	0.19	0.35	0.44
3	Dysentery	0.74	0.79	1.34	1.29
4	Diarrhoea	0.27	0.22	0.46	0.33
5	Diphtheria	0.02	0.01	0.03	0.01
6	Whooping cough	0.33	0.25	0.84	0.60
7	Tetanus	0.01	0.01	0.02	0.03
8	Acute poliomyelitis	0.01	0.02	0.03	0.05
9	Small pox	0.38	0.44	0.63	0.79
10	Measles	0.17	0.14	0.31	0.30
11	Mumps	0.03	0.08	0.05	0.12
12	Malaria	1.13	0.71	1.77	1.15
13	Influenza	2.16	2.15	3.10	3.24
14	Pneumonia	0.13	0.05	0.20	0.11
15	Food poisoning	0.02	0.04	0.03	0.04
16	Accident	0.39	0.54	0.80	1.01
17	Others	4.34	5.16	8.27	8.51
18	Not recorded	2.29	2.70	4.18	4.71
19	**All ailments**	**12.57**	**13.53**	**22.46**	**22.77**

Source: NSS,28th Round

The health landscape revealed by the NSSO data indicates a complex intersection of traditional biological threats and emerging man-made pathologies, stratified by the urban-rural divide.

Infectious diseases, measured in incidence and prevalence per 1,000 persons, represent a widespread biological burden across both sectors. Influenza and Malaria emerge as the most significant biological threats. While Influenza maintains a nearly universal

presence with a prevalence of 3.10 in rural and 3.24 in urban areas, Malaria remains more concentrated in rural settings (1.77) due to environmental vector conditions. Water-borne stress is evidenced by the prevalence of Dysentery and Diarrhoea, which remain high in both sectors, though Dysentery is slightly more pronounced in rural populations at 1.34. Tuberculosis presents a unique challenge as a chronic infection; it is slightly more prevalent in urban areas (137 per 100,000), likely facilitated by city overcrowding. The data captures significant transmission rates of vaccine-preventable diseases like Smallpox and Whooping Cough, reflecting the biological landscape prior to universal immunization.

Chronic conditions, measured per 100,000 persons, highlight the "man-made" health crisis driven by lifestyle shifts and occupational exposures. There is a profound surge in non-communicable diseases in urban areas, specifically High Blood Pressure (132) and Diabetes (80), which are significantly higher than rural rates of 44 and 39, respectively. This indicates a direct correlation with sedentary urban lifestyles and dietary transitions. Man-made ailments in rural areas are characterized by respiratory and musculoskeletal issues. The higher prevalence of Asthma (376) and Rheumatism (251) compared to urban counterparts (355 and 146) suggests a high toll from agricultural labour and exposure to biomass fuel smoke.

A critical observation is the high rate of "Not recorded" chronic conditions, exceeding 600 per 100,000 in both sectors, which points toward a substantial deficiency in healthcare reporting and diagnostic infrastructure during the survey period.

The data confirms a dual burden of disease where rural areas continue to struggle with traditional infectious pathogens and occupational physical toll, while urban areas have transitioned toward a crisis of "lifestyle" diseases. This transition marks a shift from biological survival toward the management of man-made, non-communicable pathologies.

3.2NSS, 52nd Round: July 1995- June 1996.

The NSS 52nd round covered 7663 village blocks and 4991 urban blocks with household coverage of rural and urban areas to the tune of 71284 and 49658 sample respectively. The enquiry on morbidity was conducted with a reference period of 15 days and are all spells of ailments suffered by each member of the sample household during the 15 days preceding the date of enquiry were covered. Acute and chronic ailments were differentiated on the basis of duration of illness. Ailment with less than 30 days of duration was termed as acute and those with long duration, that is 30 days or more, was referred to as chronic.

Table 3

Prevalence of Chronic (Long-Duration) Ailments per 100,000 Persons

Sl. No.	Ailment	Rural (Incidence)	Urban
1	Chronic amoebiasis	17	13
2	Pulmonary tuberculosis	83	63
3	Leprosy	11	9
4	Sexually transmitted diseases	3	1
5	Jaundice	16	22
6	Guinea worm	0	4
7	Filaria (elephantiasis)	9	7
8	Cancer	16	14
9	Other tumours	10	14
10	(General debility) anaemia	14	15
11	Goitre & thyroid disorder	11	10
12	Diabetes	48	145
13	Beriberi	1	1
14	Rickets	4	1

Sl. No.	Ailment	Rural (Incidence)	Urban
15	Other malnutrition diseases	6	6
16	Mental & behavioural disorders	28	51
17	Epilepsy	14	24
18	Other diseases of the nerves	27	29
19	Visual disabilities (other than cataract)	24	15
20	Cataract	48	22
21	Other diseases of the eye	35	17
22	Hearing disability	24	9
23	Other diseases of the ear	11	9
24	Diseases of the heart	60	102
25	High/low blood pressure	89	195
26	Piles	13	32
27	Speech disability	7	3
28	Diseases of the mouth, teeth and gum	6	11
29	Gastritis/ gastric/ peptic/ duodenal ulcer	100	68
30	Diseases of the kidney/ urinary system	42	43
31	Prostate disorders	1	3
32	Hydrocele	12	1
33	Pain in the joints	198	152
34	Other disorders of the bones and joints	35	-
35	Locomotor disability	47	49
36	Other congenital deformities	10	31
37	Other diagnosed diseases (> 30 days)	267	5
38	Undiagnosed ailment (> 30 days)	56	218
39	**Any long-duration ailment**	**1324**	1384

Source: NSS,52nd Round

Table 4

Combined Incidence of Acute Ailments (per 100,000 persons)

Sl. No.	Ailment	Urban (All)	Rural (All)
1	Diarrhoea & gastro-enteritis dysentery (incl. cholera)	230	269
2	Tetanus	4	2
3	Diphtheria	3	4
4	Whooping cough	54	58
5	Meningitis & viral encephalitis	6	4
6	Fevers of short duration	1531	1684
7	Chicken pox	19	31
8	Measles/German measles	14	11
9	Mumps	4	5
10	Diseases of the eye	54	43
11	Acute diseases of the ear	21	3
12	Heart failure	5	1
13	Cerebral stroke	2	202
14	Cough and acute bronchitis	255	36
15	Acute respiratory infection (including pneumonia)	41	34
16	Diseases of the mouth, teeth & gum	48	11
17	Diseases relating to pregnancy & child birth	10	63
18	Injury due to accident and violence	83	420
19	Other diagnosed ailment (up to 30 days)	464	67
20	Undiagnosed ailment (up to 30 days)	63	112

Source: NSS,52nd Round

The data for chronic ailments (Table 3) highlights a significant urban-rural divide driven by socioeconomic factors and lifestyle changes. There is a stark urban preponderance in metabolic and cardiovascular disorders. Diabetes is nearly three times more prevalent in urban areas (145 per 100,000) compared to rural areas (48). Similarly, High/low blood pressure shows a massive urban spike (195 vs. 89). Urban areas report significantly higher rates of Mental & behavioural disorders (51) compared to rural settings (28), potentially reflecting higher urban stress or better diagnostic reach. Pain in the joints is more prevalent in rural areas (198) than urban (152), likely due to the physically demanding nature of agrarian labour. Pulmonary tuberculosis remains higher in rural areas (83 vs. 63), suggesting ongoing challenges with rural housing density and healthcare access.

Acute ailments (Table 4) underscore the impact of sanitation, environment, and occupational hazards. Fevers of short duration are the most common acute ailment in both sectors but are higher in rural areas (1,684 vs. 1,531). Diarrhoea and gastro-enteritis also show rural dominance (269 vs. 230), pointing to gaps in rural water sanitation. Interestingly, Cough and acute bronchitis are significantly higher in urban areas (255) compared to rural areas (36), likely a byproduct of urban air pollution and congestion.

Injury due to accident and violence is disproportionately higher in rural areas (420) than urban areas (83). This may reflect hazardous agricultural work environments or different reporting thresholds for minor vs. major trauma.

3.3NSS, 60th Round: January-June 2004

The enquiry covered the curative aspect of the general health care system in India and also the utilization of health care services provided by the public and private sector, together with the expenditure incurred by the households for availing these services. The enquiry on morbidity was conducted with a reference period of 15 days. the actual numbers of households surveyed in the rural and urban areas were 47,302 and 26,566, respectively.

Table 5

Incidence Rate of Ailments (Per 100,000 Persons)

Sl. No	Ailment Type	Incidence Rate (Persons)
1	Diarrhoea/ Dysentery	381
2	Gastritis/ Gastric or Peptic Ulcer	120
3	Worm Infestation	28
4	Amoebiasis	21
5	Hepatitis/ Jaundice	14
6	Heart Disease	19
7	Hypertension	52
8	Respiratory (including ENT)	443
9	Tuberculosis	6
10	Bronchial Asthma	61
11	Disorders of Joints and Bones	91
12	Diseases of Kidney/ Urinary System	19
13	Prostatic Disorders	2
14	Gynaecological Disorders	32
15	Neurological Disorders	36
16	Psychiatric Disorders	6
17	Conjunctivitis	18
18	Glaucoma	3
19	Cataract	6
20	Diseases of Skin	68
21	Goitre	1
22	Diabetes Mellitus	16
23	Under-nutrition	2

Sl. No	Ailment Type	Incidence Rate (Persons)
24	Anaemia	9
25	Sexually Transmitted Diseases	1
26	Malaria	119
27	Eruptive (Fevers)	35
28	Mumps	18
29	Diphtheria	11
30	Whooping Cough	166
31	Fever of Unknown Origin	1484
32	Tetanus	1
33	Filariasis/ Elephantiasis	1
34	Locomotor Disability	18
35	Visual including Blindness	9
36	Speech Disability	1
37	Hearing Disability	11
38	Diseases of Mouth/ Teeth/ Gum	61
39	Accidents/ Injuries/ Burns/ Fractures/ Poisoning	140
40	Cancer and Other Tumours	8
41	Other Diagnosed Ailments	725
42	Other Undiagnosed Ailments	114
-	**All Ailments (Total)**	**4444**

Source: NSS, 75th Round

An analysis of the incidence rates per 100,000 persons reveals a total disease burden of **4,444 per 100,000**. The data exhibits a double burden of disease, where high rates of acute infectious conditions coexist with chronic non-communicable diseases (NCDs) and significant diagnostic gaps.

3.3.1Communicable and Infectious Disease Profile

The population exhibits a high susceptibility to gastrointestinal and vector-borne pathogens, suggesting environmental and sanitation-related vulnerabilities. Diarrhoea and Dysentery represent a major public health concern with an incidence rate of 381 per 100,000. This is supplemented by Amoebiasis (21) and Worm Infestation (28). Malaria remains a significant endemic threat at 119 per 100,000. Despite modern immunization efforts, Whooping Cough (**166**) and Diphtheria (**11**) persist within the population. Tuberculosis shows a relatively lower incidence of 6 per 100,000 compared to acute infections.

3.3.2Non-Communicable Diseases (NCDs) and Chronic Morbidity

The NCD profile is dominated by respiratory pathologies and musculoskeletal disorders, which may be linked to environmental exposure or aging demographics. General respiratory conditions (including ENT) are the most prevalent identified NCD at 443 per 100,000. Bronchial Asthma contributes an additional 61 per 100,000 to the chronic respiratory load. The incidence of Hypertension (52), heart disease (19), and Diabetes Mellitus (16) indicates a presence of metabolic syndromes, though they appear less frequent than acute ailments in this dataset. Musculoskeletal issues (Disorders of Joints and Bones) show a significant rate of 91, while Gastritis and Peptic Ulcers—often multi-factorial in origin—affect 120 per 100,000.

The epidemiological landscape is characterized by a high prevalence of undifferentiated febrile illness and respiratory ailments. While communicable diseases (specifically enteric and vaccine-preventable) remain high, the significant incidence of joint disorders and injuries highlights a complex morbidity profile that requires both improved sanitation/vaccination programs and robust trauma and chronic care systems.

3.4NSS 71st Round: January – June 2014

The survey on Social Consumption: Health in 71st round aimed to generate basic quantitative information on the health sector. The survey period of the 71st round was from January to June 2014. The survey covered the whole of the Indian Union. For rural India, the number of villages surveyed in the Central sample was 4577 and the number of urban blocks surveyed was 3720. Details of all ailments (as in-patient or otherwise) during last 15days were collected for all current members and former members.

Table 6

Distribution of Ailment Spells (Rural + Urban Total)

Sl. No.	Ailment Category / Detailed Type	Spells per 1,000 Persons
I.	Infections (Sub-total)	266
1	All other fevers	179
2	Diarrhoea / Dysentery	24
3	Fever due to diphtheria, whooping cough	22
4	Fever with loss of consciousness	18
5	Other (Tuberculosis, Jaundice, Filariasis, HIV/AIDS)	23
II.	Endocrine, Metabolic & Nutritional (Sub-total)	117
6	Diabetes	98
7	Goitre and other thyroid diseases	16
8	Others (Under-nutrition, Obesity)	3
III.	Cardiovascular (Sub-total)	130
9	Hypertension	99
10	Heart disease (Chest pain, breathlessness)	32
IV.	Respiratory (Sub-total)	142
11	Acute upper respiratory infections	78
12	Bronchial asthma	38
13	Cough with sputum (non-TB)	26
V.	Skin & Musculoskeletal (Sub-total)	111
14	Joint or bone disease / pain or swelling	79
15	Back or body aches	32
VI.	Gastro-intestinal (Sub-total)	65
16	Pain in abdomen (Ulcers, acid reflux)	50
17	Others (Lumps, bleeding)	15

Sl. No.	Ailment Category / Detailed Type	Spells per 1,000 Persons
VII.	Psychiatric & Neurological (Sub-total)	52
18	Headache	21
19	Weakness in limb muscles / movement difficulty	12
20	Others (Mental disorders, Seizures, Stroke)	19
VIII.	Other Categories	
21	Genito-Urinary	18
22	Injuries (Accidents, Burns)	17
23	Eye / Ear Disorders	20
24	Obstetric / Blood Diseases / Others	29
Total	All Ailments	1,000

Source**:** NSS,71st Round

The distribution of ailments reflects a population in a significant stage of epidemiologic transition, where the historical burden of infectious diseases is now intersected by a high prevalence of chronic, non-communicable diseases (NCDs). This "double burden" is characterized by a high frequency of short-term infectious spells alongside a rising need for long-term management of lifestyle-related conditions.

The NCD category is the most prominent feature of the data, accounting for over half of all reported ailment spells. This dominance is largely driven by cardiovascular and metabolic disorders; specifically, hypertension and diabetes contribute significantly, with 99 and 98 spells per thousand respectively. These figures highlight the impact of urbanization and sedentary lifestyles on public health. Additionally, musculoskeletal issues like joint and bone pain (79 per thousand) and back aches (32 per thousand) indicate a high prevalence of degenerative conditions often associated with aging populations and poor ergonomics. Chronic respiratory NCDs, such as bronchial asthma (38 per thousand), further emphasize the burden of environmental pollutants and allergens.

Despite the shift toward NCDs, infectious diseases remain a heavy burden. The infection sub-total is the largest single group at 266 per thousand, driven heavily by "all other fevers" (179 per thousand), which suggests a high incidence of seasonal or undiagnosed viral and bacterial infections. Acute respiratory infections contribute another 78 spells per thousand, reflecting rapid-onset illnesses that spread easily in dense populations. Furthermore, the presence of water-borne and faecal-oral diseases, such as diarrhoea, dysentery, and jaundice, indicates that challenges with sanitation and access to clean water persist.

The data illustrates that while medical advancements have successfully reduced the mortality of certain infectious diseases—noted by the very low rates of tetanus and HIV/AIDS—environmental hygiene issues remain a primary cause of high-frequency morbidity. Simultaneously, lifestyle diseases have reached near-equal levels to traditional infections, with diabetes and hypertension alone totalling 197 spells per thousand. This transition signals a necessary shift in healthcare strategy, moving away from a purely short-term treatment model toward one that can sustain long-term healthcare management for a population increasingly affected by chronic illness.

3.5NSS 75th Round: JULY 2017 – JUNE 2018

The survey conducted during July 2017 to June 2018 covered the whole of the Indian Union. It collected data from 5,55,114 households spread over every district of the country. The rural households belonged to 8,077 randomly selected villages and the urban households to 6,181 randomly selected urban blocks.

Table 7

Disease per centage distribution

Classification	Ailment Category	Percentage of Persons
Communicable Disease (CD)	Infections (including fevers, jaundice, diarrhoea/dysentery)	32.0
Non-Communicable Disease (NCD)	Cardio-vascular (including hypertension, heart disease)	16.7
Non-Communicable Disease (NCD)	Endocrine, metabolic (including diabetes, thyroid diseases)	14.9
Non-Communicable Disease (NCD)	Respiratory	10.3
Non-Communicable Disease (NCD)	Musculo-skeletal (including joint pain, back & body aches)	8.5
Non-Communicable Disease (NCD)	Psychiatric and neurological	4.3
Unclassified	Other	13.3

Source: NSS, 75th Round

Based on the provided data, the disease pattern reveals a significant transition between Communicable Diseases (CDs) and Non-Communicable Diseases (NCDs).

Communicable diseases, categorized under "Infections," represent the single largest individual ailment group in the dataset. Infections, which include fevers, jaundice, and diarrhoea/dysentery, affect 32.0% of the surveyed persons. This high percentage suggests that acute conditions related to environmental sanitation and hygiene remain a primary public health concern.

While infections are the largest single category, the aggregate burden of NCDs is substantial, collectively accounting for 54.7% of the cases when the specific categories are summed. Cardiovascular and Metabolic Health: Cardio-vascular issues (including hypertension and heart disease) at 16.7% and endocrine/metabolic conditions (including diabetes and thyroid diseases) at 14.9% are the leading chronic ailments. Respiratory ailments account for 10.3% of cases, while Musculo-skeletal issues (such as joint pain and back aches) affect 8.5% of the population. Psychiatric and neurological conditions represent the smallest defined category at 4.3%.

The data illustrates a "double burden" of disease. Although the infectious disease category is the most frequent individual reason for ailment at 32.0%, the diversification of NCDs (totalling 54.7%) indicates a population heavily impacted by chronic, long-term health management needs. Additionally, 13.3% of ailments fall under "Other," which represents a significant portion of unspecified health issues that fall outside the primary CD/NCD bifurcation.

4.DISCUSSION

The shift in India's disease profile across the various National Sample Survey (NSS) rounds—from the 28th (1970s) to the 75th (2018)—provides a classic longitudinal case study of **Abdel Omran's Theory of Epidemiologic Transition (1971)**.Omran's theory posits that as a nation develops, it moves through distinct stages where the primary causes of death and disease shift from infectious, "pandemics" to degenerative, "man-made" chronic conditions.

In Omran's theory, the first stage is characterized by high and fluctuating mortality rates due to epidemics. The 28th Round (1970s) data illustrate the tail end of this stage in India. Mortality and morbidity were driven by vector-borne diseases like Malaria (rural prevalence of 1.77 per 1,000) and vaccine-preventable diseases like Smallpox (0.63–0.79 per 1,000). The high prevalence of Dysentery and Diarrhoea (collectively over 2.6 per 1,000) reflected a society where health was almost entirely dictated by environmental hygiene and the lack of potable water. While NCDs existed (e.g., Asthma at 376 per 100,000), they were often undiagnosed or overshadowed by the urgency of acute infections.

During the 52nd (1995-96**)** and 60th (2004) rounds, India moved into a phase where the frequency of major epidemics declined, but chronic diseases began to emerge as "man-made" hazards of modernization. The 52nd round provided early scientific evidence of the "lifestyle" shift. Diabetes was nearly 3times more prevalent in urban areas (145 per 100,000) than rural areas (48), and Hypertension showed a similar massive urban spike (195 vs 89). A unique feature of India's transition—often called a **Protracted Polarized Transition** (Frenk et al, 1989) **is** that infections remained high even as NCDs rose. In the 60th round, Fever of Unknown Origin was the single largest category at 1,484 per 100,000, representing 33.4% of total ailments. This indicates that while medicine advanced, the basic infrastructure for diagnosis and sanitation lagged. During this period, the "checks" on population growth were primarily infectious. The high incidence of "Fever" and gastrointestinal stress indicates a society where health was dictated by environmental sanitation and the lack of a robust primary immunization infrastructure. During the 52nd (1995-96) and 60th (2004) rounds, India moved into a phase where the frequency of major epidemics declined, but chronic diseases began to emerge as "man-made" hazards of modernization**.** The 71st (2014) and 75th (2018) rounds confirm that India has reached a tipping point where NCDs have become the primary public health challenge.

By the 75th round, identified NCDs (Cardiovascular, Metabolic, Respiratory, and Musculoskeletal) collectively accounted for 54.7% of all ailments. Cardiovascular diseases (16.7%) and Endocrine/Metabolic disorders (14.9%) are now the leading causes of chronic morbidity, reflecting a population that has survived the infectious risks of childhood only to succumb to the lifestyle risks of adulthood. Respiratory ailments (10.3%) serve as a unique bridge in the transition, being caused by both infectious agents (TB/pneumonia) and degenerative factors (chronic obstructive pulmonary disease/asthma linked to pollution).

The most recent data from the 71st (2014) and 75th (2018**)** rounds show India entering a phase where NCDs are no longer just "urban" or "elite" diseases but have become the dominant burden of the healthcare system. By the 75th round, the aggregate of NCDs (Cardiovascular, Endocrine, Respiratory, and Musculo-skeletal) reached 54.7%, surpassing the 32.0% attributed to infectious diseases. This aligns with Omran's observation that as life expectancy increases, the population "survives" long enough to develop chronic ailments. However, India's pattern is unique because of the "Double Burden": the country must fight 21st-century diseases (Diabetes/Hypertension) with a 20th-century infrastructure that is still managing 19th-century diseases (Diarrhoea/TB).

According to Omran's theory, societies typically move from an "Age of Pestilence" to an "Age of Degenerative Diseases." However, the data across these five decades suggests that India is experiencing what researchers call a Protracted and Polarized Transition. Unlike the Western model where NCDs replaced CDs, India's data shows an "overlap." Even in the 75th Round (2018), while NCDs reached a collective 54.7%, the "Infection" category remained the largest single individual block at 32.0%. This implies that the transition is "protracted" because the country has not yet "finished" its battle with infectious diseases like diarrhoea, malaria, and tuberculosis. The 52nd Round (1995) data explicitly showed that this transition moves at two speeds: an urban population facing "modern" metabolic crises (Diabetes prevalence 3x higher than rural) and a rural population still grappling with "traditional" infectious and manual-labour-related ailments (higher rates of TB and joint pain). The context of these ailments has shifted from external environmental hazards to internal behavioural risks. In the 1970s (Round 28), Morbidity was largely "involuntary," driven by poor water management and lack of vector control (Malaria prevalence 1.77 in rural areas). In the 2000s (Rounds 60 & 71) context shifted toward urbanization and longevity. The high rate of Cardio-vascular (16.7%) and Endocrine (14.9%) diseases in the 75th Round suggests a population affected by sedentary lifestyles, dietary changes, and the biological reality of an aging demographic that now "survives" long enough to develop chronic conditions.

The significance of this shifting pattern lies in the economic and structural strain it places on the Indian healthcare system. The healthcare system must remain "bilingual." It must maintain acute-care infrastructure for infections (which still account for 1/3 of ailments) while simultaneously building a chronic-care infrastructure for NCDs which require lifelong medication and monitoring. While tremendous gains have been made regarding curtailing infectious diseases, the expectation is that they will continue to linger for a while conditioning the persistence of a protracted burden of chronic and infectious disease (Konkor and Kuuire,2023).

In summary, the transition from the 28th to the 75th Round marks India's move from a "Survival" health culture to a "Management" health culture. The significance of this study is the realization that the "epidemiological transition" is not a destination but a period of high complexity where the ghosts of past infections meet the challenges of future chronicity.

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