

Employee State Insurance Scheme - Performance and Potential Pathways for Reform

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1. Introduction

Employee State Insurance Scheme (ESIS) is the oldest health insurance scheme in India. It is mandatory for blue-collar workers and their employers in the formal sector to contribute to the scheme. In return, registered workers and their dependents can avail benefits from ESIS facilities. (Forgia & Nagpal, 2012). In its conception, it is akin to a Social Health Insurance (SHI) programme along the lines of the Bismarck Model of a health care system.³ SHI is one approach to raising and pooling funds for financing health services. Other mechanisms include tax financing, commercial health insurance, and community health insurance. This system is not unique to India and variations of the model can be found in European countries such as Germany, Switzerland, and France, and in Asian countries such as Japan (PNHP, not dated).

Although the contribution deducted from the incomes of employees is a form of payroll tax and SHI can be viewed as any other tax-financed government scheme/ service, there are certain distinct features which set SHI apart. The main objective of SHI can be viewed as that of providing social and financial protection to its beneficiaries from health events, which can affect their ability to work (ESIC, not dated). To this end, contributions are mandatorily collected, and only those who have enrolled and have paid the premiums are entitled to receive health services and other benefits from the scheme (Hsiao & Shaw, 2007). This is unlike general taxation-financed government schemes, which have the larger underlying objective of redistributing income by taxing the richer sections of the population to finance the provision of public goods and services, or essential goods and services, to the poorer sections of the population. Additionally, SHI is viewed as being financially stable because it is self-financed through mandatory contributions from a defined membership regime. In contrast, health care services financed through general taxation revenues, for example, have to compete with other government priorities for periodic budgetary allocations, thereby obstructing them from delivering services effectively (Hsiao & Shaw, 2007; Saltman, Busse, & Figueras 2004). In addition to these features, SHI schemes are generally backed by statutes which define the premiums payable by the enrollees and the benefits they are entitled to receive in return. As such, the contribution rates and benefits of SHI are secure and are not subject to periodic budgetary decisions of governments (Hsiao & Shaw, 2007).

SHI is also different from commercial health insurance in many respects. By design, SHI promotes equity by allowing access to similar health care services to all its enrollees while their contributions are determined by their ability to pay. Additionally, it pools risks by including young and old, and healthy and less healthy beneficiaries. In contrast, commercial health insurance, through its actuarially based premiums is prone to the practice of risk selection by

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³ In the Bismarck model, employers and employees compulsorily pay into "sickness funds" run by insurers. These insurers in turn purchase healthcare services on behalf of the insured from providers (doctors and hospitals) who generally tend to be in the private sector. The model is therefore a "multi-payer" one.

insurance companies. Additionally, unlike commercial health insurance, which covers only large medical expenses, SHI schemes cover large expenses as well as less expensive essential health care services such as preventive and primary care. Being prepaid, they can encourage beneficiaries to use more of these cost-effective services rather than resorting to expensive inpatient care. (Hsiao & Shaw, 2007; Saltman et al., 2004).

ESIS in India embodies many of these desirable features of a SHI programme. Currently, it is the largest contributory health insurance programme in India, with a substantial potential to grow its risk pooling. By design, the expansion of ESIS is directly linked to the formalisation of the workforce in the country. While this latter process has tended to be slow, ESIS can still play a catalytic role in providing health insurance coverage to a larger section of the population by expanding its ambit to include all formal sector workers as against just blue-collar workers, as it does at present. Over time, it can also be gradually expanded to include informal sector workers. In these ways, growth in the ESIS pool can help it become a highly effective SHI programme in the longer term. A low poverty rate and government capacity to regulate are all urgent policy objectives for India and also some of the other preconditions for an effective SHI programme (Hsiao & Shaw, 2007). This is another reason that India's health care system will most likely incorporate a significant role for ESIS and/or ESIS-like SHI programmes in the long-term.

With the above context in mind, in this note, we review the current status of ESIS with a specific focus on beneficiary outcomes. To begin with, in Section 2, we outline the key features of ESIS as it is currently in force. In Section 3, we review available evidence to assess the performance of the scheme in delivering health and financial protection to its beneficiaries. We use access, equity, quality, efficiency, and customer satisfaction as measures of performance. In Section 4, we consider possible pathways through which ESIS can more effectively deliver the promised services and benefits to its beneficiaries and fulfill its role in the long term.

2. Key Features of Employee State Insurance Scheme

ESIS was introduced through an act of parliament in 1948. The scheme is managed by Employee State Insurance Corporation (ESIC), an autonomous agency of the Government of India. Apart from managing the scheme, ESIC, along with the ESIS departments of respective State Governments, manages its own network of medical service providers and arranges for outsourced tertiary care in private hospitals (Forgia & Nagpal, 2012). Thus, ESIC performs the role of a financier, purchaser, and provider of health care services.

The ESIS-owned-and-operated hospital network is managed through two organisational arrangements – model hospitals spread across the country and hospitals in Delhi are managed directly by ESIC, and the rest are managed by state ESI departments, with the former network being smaller in size. In addition to its own network of hospitals, ESIS also has tie-ups with private/ government hospitals for Super Specialty Treatment. For providing ambulatory or outpatient care, ESIS operates its own operates dispensaries and Indian System of Medicine (ISM) units, and where necessary, it also empanels private medical practitioners (IMPs) (Forgia & Nagpal, 2012).

The scheme presently applies to all employees drawing monthly wages up to Rs. 21,000 in factories and other establishments employing 10 or more persons. The wage ceiling was at Rs. 15,000 per month until January 2017. Currently, the employees' contribution rate is set at 0.75% of their wages, while the employers' contribution rate is set at 3.25% of the wages paid/ payable in respect of eligible employees (ESIC, not dated). For the contributions paid, employees and their

dependents are entitled to receive medical care as well as other cash benefits. ESIS's benefits package is comprehensive and covers preventive, outpatient, and inpatient medical care at no additional cost. Additionally, there is no expenditure ceiling on the treatment of the insured or their dependents. In instances where beneficiaries receive medical care from ESIC-empaneled private hospitals, they are entitled to reimbursement of the expenses incurred. Hence, in effect, the scheme is designed to cover all medical expenses without beneficiaries having to incur any out-of-pocket (OOP) expenditures (Forgia & Nagpal, 2012). Cash benefits covered by ESIS include Sickness Benefit, Disablement Benefit (temporary and permanent), Maternity Benefit, Dependents Benefits, and payments for funeral expenses (ESIC, not dated).

3. Performance of Employee State Insurance Scheme

In this section, we assess the performance of ESIS based on available evidence against five key measures of performance – access, quality, efficiency, and outcomes. Equity as a performance measure has been used across these 4 measures to highlight intra-state variations, if any. These are supply-side indicators which tell us the extent to which the scheme has been able to deliver medical services to its beneficiaries. Performance on the demand-side has been looked through the lens of beneficiary satisfaction.

3.1. Access

One measure of performance is the availability or accessibility of ESIS health infrastructure for enrolled beneficiaries. Data on coverage (no. of lives and by region) has been used not as a direct measure of access, but as an indicator of the proportion of the population that is eligible to access health facilities of ESIS on account of being enrolled with the scheme.

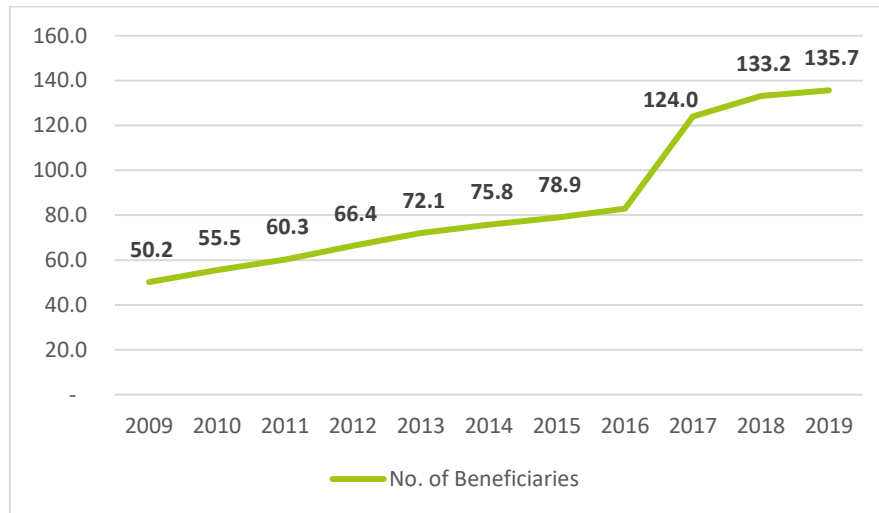
3.1.1. Number of Lives Covered

The membership, and consequently, the number of beneficiaries covered by ESIS has grown substantially in the past decade (see Figure 1). At the end of the financial year 2018-19, the scheme covered a total of 135.6 million beneficiaries, which included a total of 31.4 million employees (ESIC, not dated). To put these numbers into perspective, ESIS provided health care coverage to 9.9% of the total population of India.⁴ In terms of coverage of the working population in the country, the scheme covered 66.8 % of the formal sector labour force and 7.4% of the overall workforce.⁵ Owing to partial/no notification of the scheme in a number of states/ districts in the country (see Section 3.1.2), many employees who are otherwise eligible would fall outside the ambit of the scheme.

⁴ Population of India at 1.366 billion as published by World Bank was used to compute these numbers. See <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=IN>

⁵ As per Economic Survey of 2019-20, there were 4.7 crore workers in the formal sector in 2017-18 and 42.13 crore workers, both formal and informal sector included for the same year. See https://www.indiabudget.gov.in/economicsurvey/doc/vol2chapter/echap10_vol2.pdf

Figure 1: Trend in Number of ESIS Beneficiaries (in Million)



Source: ESIC Annual Reports

3.1.2. Coverage by Region

The scheme is implemented in phases in different parts of the country after notification by ESIC. Prior to a region being notified for implementation of the scheme, infrastructure required for providing medical and other benefits are required to be put in place. As of September 2019, the implementation of ESIS stood as indicated in Table 1. Full/partial implementation refers to the extent of completion of medical arrangements by the State Governments, which have the primary responsibility of administering medical care under the scheme.

Table 1: Status of ESIS Implementation

ESIS Notification Status	States/UTs	Districts
Fully notified States/UT's	12	381
Partially notified States/UT's	22	185
Non-implemented States/UT's	2	156
Total	36	722

Source: ESIC

Arunachal Pradesh and Lakshadweep are two regions where the scheme has not been implemented. On the other hand, the following are the states/ UTs where the scheme has been implemented in all the districts.

Table 2: Fully Notified States/ UTs

Andhra Pradesh	Chandigarh	Dadra and Nagar Haveli	Daman and Diu
Delhi	Goa	Haryana	Karnataka
Kerala	Puducherry	Rajasthan	Telangana

Source: ESIC

3.1.3. Availability of Health Infrastructure

As of 31 March 2018, health infrastructure operated under ESIS stood as indicated in Table 3. ESI Annexes refer to extensions built to hospitals of State Governments and others for providing inpatient treatment to ESIS beneficiaries.

Table 3: Health Infrastructure in Numbers, 2018*

Infrastructure	Numbers
ESI Hospitals	154
ESI Annexes	42
ESI Dispensaries/ISM Units	1500/148
Insurance Medical Officers	7908
Insurance Medical Practitioners	980

Source: ESIC Annual Report 2017-18, * Year indicates financial year-end

At the end of the financial year 2017-18, there were 21,931 beds commissioned under ESIS. These include 19,626 beds in ESI hospitals, 371 beds in ESI Annexes, and 1,934 beds reserved in various State Government hospitals for the exclusive use of ESIS beneficiaries. Consequently, with 133.2 million beneficiaries, the number of beds per 1000 beneficiaries stood at 0.16 (see Table 4). This provides a measure of the resources available for delivering inpatient services in ESIS hospitals. This is much lower compared to 0.7 beds per 1000 people at a country level⁶ and 0.55 government hospital beds per 1000 people in India.⁷ The global average as per the World Bank was at 2.7 beds per 1000 people in 2011.⁸ The lack of expansion in health care facilities in proportion to the increase in the number of beneficiaries over the past few years provides an explanation to an extent for the low performance on this measure. For example, between 2013 and 2018, while the number of beneficiaries increased by 84.8%, the number of beds commissioned reduced by 3% (see Table 4).

Table 4: No. of Beds per 1000 Beneficiaries

Year*	2013	2014	2015	2016	2017	2018
No. of beneficiaries	7,20,98,160	7,58,44,766	7,89,33,944	8,28,84,094	12,40,16,091	13,32,05,444
No. of beds commissioned	22,600	23,188	22,522	22,604	22,884	21,931
No. of beds per 1000 beneficiaries	0.31	0.31	0.29	0.27	0.18	0.16

Source: Authors' own calculations; ESIC Annual Reports

⁶ See "Hospital beds (per 1,000 people) – India" by World Bank

<https://data.worldbank.org/indicator/SH.MED.BEDS.ZS?end=2015&locations=IN&start=1960&view=chart>

⁷ See "COVID-19 | Is India's health infrastructure equipped to handle an epidemic?" by Prachi Singh, Shamika Ravi and, Sikim Chakraborty, 24 March, 2020, *Brookings*, available at <https://www.brookings.edu/blog/up-front/2020/03/24/is-indias-health-infrastructure-equipped-to-handle-an-epidemic/>

⁸ See "Hospital beds (per 1,000 people)" by World Bank

<https://data.worldbank.org/indicator/SH.MED.BEDS.ZS?end=2015&start=1960&view=chart>

However, the number of beds available per 1000 beneficiaries varied across different states at the end of the financial year 2017-18. While it was highest in West Bengal at 0.48 beds per 1000 beneficiaries, in states like Chhattisgarh and Bihar, it was as low as 0.03 and 0.05 beds, respectively (See Table 5).

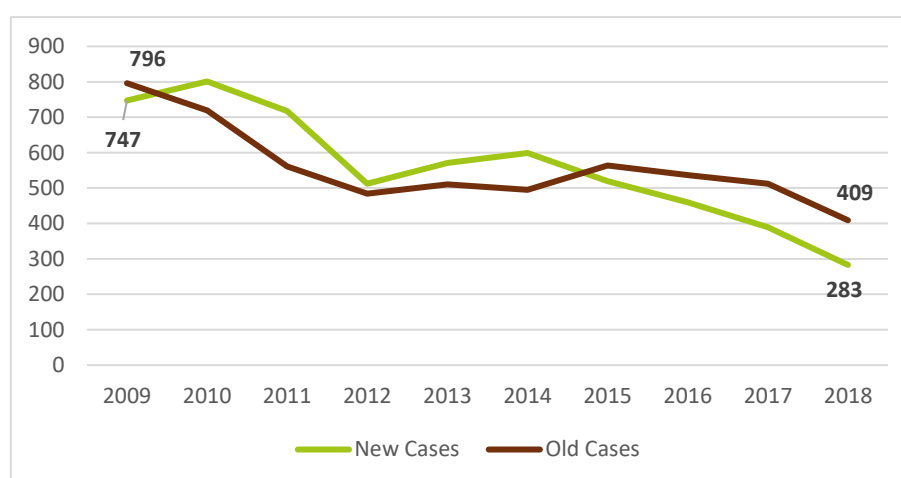
Table 5: No. of Beds per 1000 Beneficiaries in Select States, 2018

State	No. of Beneficiaries	No. of Beds Commissioned	No. of Beds per 1000 beneficiaries
West Bengal	75,81,016	3,624	0.48
Kerala	42,34,206	1,240	0.29
Gujarat	61,25,239	1,487	0.24
Haryana	1,14,24,000	817	0.07
Bihar	9,22,121	50	0.05
Andhra Pradesh	45,48,485	240	0.05

Source: Authors' own calculations; ESIC Annual Report 2017-18; State-wise Health Infrastructure in ESIC in India, Indiastat

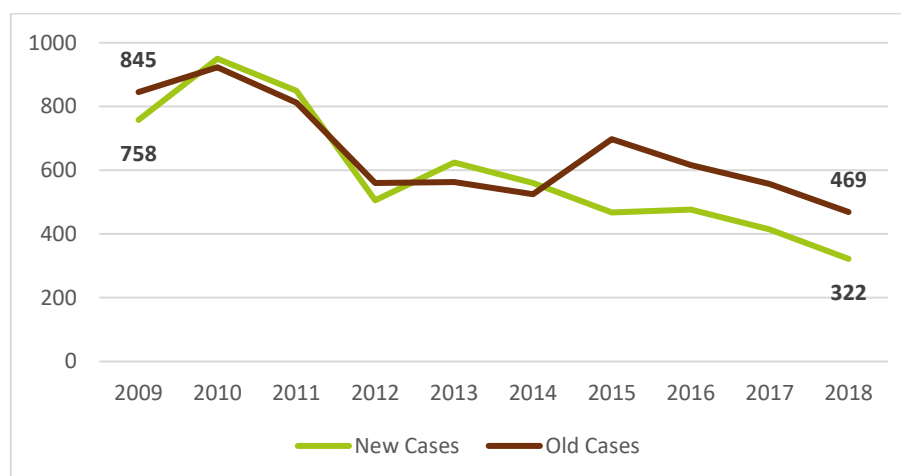
Another measure of the availability of ESIS health infrastructure is the number of outpatient visits per 1000 beneficiaries. Figures 2 and 3 indicate that the numbers of outpatient visits per 1000 insured persons and per 1000 family persons (of the insured) have been gradually declining in the past decade. States like West Bengal, Kerala, and Madhya Pradesh registered higher outpatient visits during the year 2017-18 compared to all-India averages both for insured persons and their family members. It should be noted that these are also states where the quantum of health infrastructure measured by the number of beds per 1000 beneficiaries was comparatively higher (Forgia & Nagpal, 2012). However, states like Gujarat and Uttar Pradesh were exceptions to this rule despite having comparatively higher numbers of beds, indicating other possible drivers. The overall decline in the number of outpatient visits needs to be understood in the context of the increase in the number of beneficiaries during the same period. As discussed earlier, this indicates that the expansion in health care facilities has not kept pace with the expansion in the scheme's beneficiary base.

Figure 2: Outpatient Attendances per 1000 Insured Persons



Source: ESIC Annual Reports

Figure 3: Outpatient Attendances per 1000 Family Persons



Source: ESIC Annual Reports

3.2. Quality

The quality of health care services offered through ESIS facilities has been measured by bed occupancy rate, hospitalisation rate, and the average length of stay in ESIS hospitals for inpatient services.

The all-India average bed occupancy rate has been consistently in the range of 50-53% for the past 6 years. It should be noted that this measure was higher at 68% for ESIC-managed hospitals compared to 41% for State Government-managed hospitals for the year 2017-18 (ESIC, not dated). Another measure related to inpatient treatment is hospitalisation rate. For the year 2017-18, hospitalisation rate for ESIS hospitals was at 2.5%. In comparison, the NSS 75th Round (June 2017-June 2018) found the all-India average hospitalisation rate to be at 2.9%. While the figures are not too far apart, the average length of hospital stay should also be taken into account.

During the year 2017-18, the average length of stay for inpatient care in ESIS beds was at 1.26 days. This has been computed using the average bed occupancy rate of 52% at an all India level, as indicated in Table 6. In comparison, the average length of stay between September 2018 and November 2019 under PMJAY was at 6.6 days for original admissions and 7.5 days for readmissions (National Health Authority, 2020).⁹ If we were to consider the difference in bed occupancy rates between ESIC-managed and State Government-managed hospitals, the average length of stay for the year 2017-18 would be in the range of 0.99 days and 1.64 days, with the lower end pertaining to State Government-managed hospitals. The average length of stay covered in this range is considered to be extremely low to provide quality inpatient care (NITI Aayog, 2019).

⁹ Similar break up of hospital admissions data for ESIS indicating original admissions and readmissions was not available.

Table 6: Bed Occupancy Rate and Insured Hospitalisation Rate

Year	2013	2014	2015	2016	2017	2018
No. of beneficiaries	7,20,98,160	7,58,44,766	7,89,33,944	8,28,84,094	12,40,16,091	13,32,05,444
Bed occupancy rate	53.0%	53.0%	51.0%	51.0%	50.0%	52.0%
No. of cases admitted in hospitals	4,84,430	20,32,914	24,59,574	39,81,010	36,48,734	33,81,942
Hospitalisation rate	0.7%	2.7%	3.1%	4.8%	2.9%	2.5%
Average length of stay		2.18	1.73	1.06	1.14	1.26

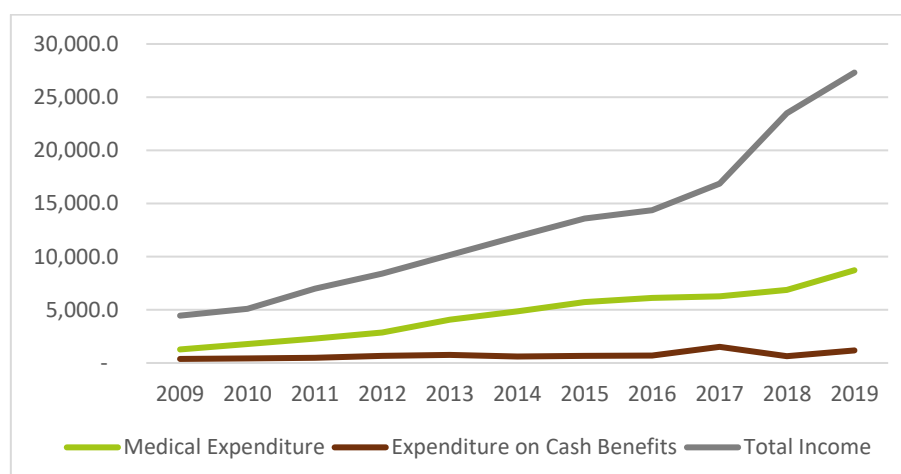
Source: Authors' own calculation using data from ESIC Annual Reports

3.3. Efficiency

Efficiency may be assessed by the amount of contributions collected from the beneficiaries vis-à-vis the expenditure incurred in providing health care services to the beneficiaries. The main source of revenue for ESIS is the contributions it receives from employees and employers to whom the scheme is applicable, followed by interest income. State Governments also contribute to the scheme.

Over the years, while membership of ESIS has grown substantially, leading to increased revenues, it has not expanded the supply of services to its beneficiaries (see Figure 4; also see Table 4), resulting in the generation of huge surpluses. In the last decade, it recorded surpluses at more than 40% of its total income every year (See Table 7).

Figure 4: ESIC Revenue and Expenditure Trends (in Rs. Crores)



Source: ESIC Annual Reports

Table 7: ESIC Surplus Over the Years

Year	2012	2013	2014	2015	2016	2017	2018
Total Income	8,393.6	10,138.6	11,909.4	13,588.6	14,372.2	16,852.4	23,480.4
Total Expenditure	4,187.8	5,645.4	6,486.6	7,606.3	8,207.6	9,506.5	8,541.6
Surplus	4,205.8	4,493.2	5,422.8	5,982.3	6,164.6	7,345.8	14,938.7
Surplus as a % of Total Income	50.1%	44.3%	45.5%	44.0%	42.9%	43.6%	63.6%

Source: ESIC Annual Reports

Surpluses over the years have resulted in the accumulation of large reserves. At the end of the financial year 2017-18, ESIC's total reserves stood at Rs. 74,348 crores, out of which 70% or Rs. 52,724 crores were not earmarked for any specific purpose. As of 31 March 2018, these reserves were invested in fixed deposits with Public Sector Banks and Special Deposits with the Central Government (ESIC, not dated). Investment of ESIC surplus funds are governed by Rule 27 of The Employees' State Insurance (Central) Rule, 1950 and as per the latest investment policy approved by the Government, ESIC has planned to hire portfolio managers for managing its funds and investing its reserves as outlined in Table 8 (ESIC, not dated). These are huge reserves for a government body like ESIC to hold when it has been tasked with providing health care facilities and other benefits to its beneficiaries. It remains to be seen how ESIC plans to utilise these reserves towards fulfilling its mandate and to remain accountable for contributions made by beneficiaries.

Table 8: New Investment Policy of ESIC

Government Securities and related instruments (Govt. bonds)	45% to 65%
Debt & related instruments (AAA rated PSU Bonds & Fixed Deposit of Scheduled Commercial Banks for more than a year)	20% to 45%
Short-term Debt and related instruments (including bank fixed deposits up to 1 year and money market instruments)	5% to 10%

Source: ESIC

3.4. Outcomes for Beneficiaries

3.4.1. Health Outcomes

If the purpose of ESIS is to improve population health outcomes and not merely to passively provide health care infrastructure in the form of hospitals and dispensaries, then we would require data on the health status of beneficiaries in order to assess ESIS's performance in terms of beneficiary outcomes. However, the scheme does not systematically monitor, measure, and report health outcomes (Forgia & Nagpal, 2012). Clearly, this is data that ESIS should be collecting and reporting so that it can inform policy and management decisions and help improve oversight and accountability (NITI Aayog, 2019). Further, such data can also help us understand how access, equity, quality, and efficiency features of ESIS translate into real health outcomes.

3.4.2. Financial Protection

As discussed in Section 2, ESIS is designed to ensure that the expenditure incurred by beneficiaries for medical care are covered by their contributions and that they incur minimum OOP expenditure. While there is no data available on OOP expenditure incurred by the ESIS pool of beneficiaries, region-specific beneficiary surveys indicate instances of ESIS beneficiaries incurring high OOP expenditures on expensive medical services offered by private providers. A study conducted in Assam revealed that a majority of the insured persons were not satisfied with the laboratory tests carried out in ESIS dispensaries and had to consequently go to expensive private laboratories (Ratan & Bidyut, 2014). A survey of about 900 beneficiaries conducted in the Chennai region of Tamil Nadu showed that the average direct medical expenditure incurred for both outpatient and inpatient care by those visiting private facilities without a referral (Category 1) was much higher than those who had referrals (Category 2). The latter are reimbursable by ESIS, making the effective expenditure incurred nil. Additionally, it was found that while transportation and other medical expenditure were higher for Category 1 respondents in the case of outpatient visits, for inpatient visits, respondents in both the categories incurred the same level of expenditure on account of having to travel long distances to access private facilities (Dash & Muraleedharan, 2011). Hence, in all these cases, beneficiaries had to incur OOP expenditure to avail of satisfactory medical care despite contributing to the scheme. It is safe to infer that, in these cases, ESIS failed to offer the intended financial protection to its beneficiaries.

Given that one of the objectives of the scheme is to provide social security in the form of financial protection from adverse health events, it is important that the scheme should track OOP expenditure with respect to its pool of beneficiaries. In addition to OOP expenditure being incurred at private health facilities, it is possible that in other instances, the medical bill is being passed on to government facilities at which an ESIS beneficiary gets treatment, for various reasons including, for example, ease of accessibility in terms of distance. In such cases, the health expenditure of the beneficiary is shifted to government hospital budgets, thus creating inefficiencies.

3.5. Beneficiary Satisfaction

All of the above discussion speaks to the performance of ESIS from a supply-side perspective, i.e., how well the scheme is delivering health care services vis-à-vis its defined mandate. Here, we ask how beneficiaries perceive ESIS services and assess the level of satisfaction derived by them. For this purpose, we consulted independent beneficiary studies which have surveyed beneficiaries in specific regions. In Table 9, we summarise the findings using the same measures of performance as earlier discussed - access, quality, and outcomes. Since these are localised studies, the findings are applicable locally, and we list them here for illustrative purposes only.

Table 9: Access, Quality, and Outcomes - Beneficiary Experience

Access	Working hours of ESI hospitals do not match with those of employees
	Number of dispensaries insufficient to satisfy the requirements of employees
	Long waiting hours for consultation
	Long-distance between residence and nearest ESI facility
	Lack of/ low interest among employers and low awareness of ESI procedures
Quality	Dissatisfied with laboratory tests, availability of drugs and dressing, and services of doctors at ESI dispensaries

	ESI dispensaries are poorly equipped, for e.g., inadequate diagnostic facilities, medicines, etc.
	ESI hospitals are equipped with low-quality drugs and lack adequate diagnostic facilities and female nurses; Unhygienic conditions
	Insolence of ESIS personnel
	Long waiting hours for consultation
	Claims settlement process is complex and time consuming
	Generally, not satisfied with the services of dispensaries/ hospitals
Outcomes	Not getting the refund of the full amount spent
	Use of over the counter medicines prescribed by pharmacists
	Choose to go to private facilities

Source: Beneficiary Studies (see Annexure for the list of studies used)

The above discussion (all of the discussion in Section 3) indicates that ESIS has been largely underperforming on all measures of performance, both supply-side and demand-side. Much of the concerns raised by the beneficiaries point to the lack of accessible ESIS health facilities or, where available, lack of quality infrastructure at ESIS hospitals and dispensaries. The presence of this access challenge is also highlighted by the supply-side indicators that we saw earlier, which showed that the availability of beds, hospitalisation rates, and the number of outpatient visits are either low or have been gradually declining. With ESIS continuing to make surpluses year on year, there is a clear misalignment between its overall healthcare delivery challenges and its financial performance. These low-performance indicators also put into question the potential role of ESIS in contributing to higher risk pooling and insurance coverage in the long term (NITI Aayog, 2019)

4. Potential Pathways for Reform

To improve the scheme’s ability to provide health care services and fulfill its potential in the longer term, NITI Aayog has identified ESIS’s operations, with a specific focus on CAPEX¹⁰ and strategic purchasing¹¹ capacity, and governance as two key areas that need significant changes urgently. NITI Aayog observed that ESIS’s strategy to invest in medical schools to train new medical professionals was unlikely to help address access challenges as the gap was too large. Additionally, absence of external strategic purchasing (from external providers) at scale was found to have impeded ESIS’ ability to respond to access challenges.

The reforms suggested by NITI Aayog in this regard have been listed below.

Governance	Review current regulatory oversight arrangements for ESIS and its performance and adjust them as needed
	Rapid assessment of governance structures and performance by engaging with ESIS leadership and key stakeholders (employers, employees, and Government of India)
	Review the composition of ESIS governance, specifically that of its standing committee vis-à-vis sufficiency and effectiveness of diversity in representation

¹⁰ CAPEX refers to strategies adopted by ESIC to invest its resources in projects which can result in gains over a long time period.

¹¹ Strategic purchasing refers to mechanisms used to allocate resources or in other words make payments to providers in a manner that incentivises improved access, efficiency of delivery, quality, financial protection ESIS’s beneficiaries as well as (ultimately) health outcomes and population gain.

	Improve volume, quality, robustness, and timeliness of data for corporate, population health, and clinical management
	Assess and revise current investment policies, including those on liquidity and returns
Operations	Rapidly build strategic purchasing capacity with an immediate focus on scaling up external purchasing of healthcare services
	Review current CAPEX strategy
	Strengthen senior management decision making process with the required health system and medical expertise

Source: NITI Aayog, 2019

In addition to addressing access challenges that have been identified in Section 3, these reforms are also aimed at ensuring effective and timely responses to the short-term health care needs of its beneficiaries. The experience gained from external purchasing of healthcare services is also aimed at helping ESIS develop and launch its own internal purchasing strategy and move towards results- and output-based financing (NITI Aayog, 2019).

However, the reforms suggested by NITI Aayog are mostly functional and short to medium term (1 to 5 years) in nature. They can be viewed as internal tweaks with levers for change resting within the ESIS system. A change in the structural form of ESIS might be required in the longer term to push it towards delivering on its longer-term mandate of driving effective SHI in India. With this long-term role of ESIS in mind, we lay out three possible pathways or structural design choices that ESIS can move towards. We only lay out the basic premise/principles on which these design choices are based and leave further exploration to assess their feasibility and suitability to the Indian legal, economic, and social contexts to future research. The options presented below are not alternatives to undertaking the measures suggested by NITI Aayog and described above, but rather are complementary to those measures, and in some sense, even subsumes those measures. Improving functional efficiencies of the kind recommended by NITI Aayog may constitute critical aspects of superior performance for a structurally reformed ESIS.

4.1. ESIS moves towards Managed Care Model

As discussed in Section 2, ESIS currently performs all three principal roles that are typically seen in a health care system – financier (pooling and managing of funds), purchasing health care services for its beneficiaries, and providing health care services to its beneficiaries through its own network of hospitals and dispensaries. In effect, the design of ESIS in its present form already comprises the elements of a Managed Care (MC) model. At its core, the MC model represents a continuum of arrangements that integrate the financing and delivery of health care (Sekhri, 2000). That is, purchasers (for example, insurers) contract with (or own) selected providers (hospitals and physicians) to deliver a defined set of services at an agreed price. This form of integration is premised on a set of principles that are aimed at providing high quality, cost-effective health care to a population. A health care system informed by MC principles:

- a. *“monitors and coordinates care through the entire range of services (primary care through tertiary services);*
- b. *emphasizes prevention and health education;*

- c. *encourages the provision of care in the most appropriate setting and by the most appropriate provider (e.g., outpatient clinics versus hospitals, primary care physicians versus specialists);*
- d. *promotes the cost-effective use of services through aligning incentives (e.g., by capitation of providers, cost-sharing by consumers)” (Sekhri, 2000).*

Governance in an MC model is shared and collaborative in nature. All actors (financier, purchaser, and provider) have a role to play. While providers manage the clinical aspects of care, the financiers/ purchasers manage the information, administration, and insurance functions (Sekhri, 2000),

It can be seen from the above brief description of an MC model that ESIS’s organisational design for delivery of health care services to its beneficiaries and its comprehensive benefits package ranging from preventive to tertiary care services are very much along the lines of a MC model. However, it needs to be noted that incorporating MC principles into ESIS’ design would yield something different from a traditional MC model. This is because, in the latter, there is still scope for risk selection as premiums are based on health risk. On the other hand, ESIS, being based on the principles of SHI, has a mandate to provide health care services to all its beneficiaries regardless of their ability to pay or the health risk they bring into the pool.

As discussed in Section 3, at present, health outcomes for beneficiaries are not receiving the required focus, and there is inefficiency in the use of resources at the disposal of ESIS. Both of these deficiencies would be addressed if ESIS were to be redesigned in accordance with MC principles, since an application of those principles would require that the relationships between the actors in the ESIS ecosystem be redefined and restructured, so that beneficiary outcomes and cost-efficiency become the primary focus of ESIS. Here, by “actors”, we mean ESIC, state ESIS departments, provider network of hospitals, dispensaries, physicians, beneficiaries, employers, and other stakeholders. Cost-efficiency would require, for example, a move from the present passive-line item/historical-based budget allocations by ESIC to its network of providers to a system of payment mechanisms that incentivises improved health outcomes for its beneficiaries at a lower cost (NITI Aayog, 2019). Issues around quality and accessibility of care can potentially be addressed through the MC model’s emphasis on provision of appropriate care through continuous monitoring and coordination. A by-product of this would be the availability of data on population health or clinical management, which is also one of the issues with the present system.

4.2. Commercial health insurers compete with ESIS for its customers

Under this arrangement, ESIS would cease to be the sole financier. Instead, it would compete with other commercial insurers for contributions of employees enrolled under ESIS. With respect to purchasing and providing health care services to its beneficiaries, ESIS could either continue to fully own these functions or allow commercial health insurers to integrate forward into these domains as well. This latter option would require significant regulatory intervention, of course, as commercial health insurers are not presently allowed to perform this kind of integration in the commercial health insurance space.

The entry of commercial health insurers would mean that beneficiaries now have the option to choose from different financiers (ESIS or other commercial insurers) based on the quality of service/ quality of customer interaction. This could help to improve the claims experience for beneficiaries in having their health expenditures reimbursed when such expenses are incurred at ESIS-empanelled private health facilities. Commercial insurers who would enter the system under this arrangement would either have their own in-house claims processing departments or

have contracted these out to TPAs who are linked to a network of private hospitals outside the ESIS ecosystem. In turn, those private hospitals could also seek ESIS-empanelment so that the capacity and access problems that plague ESIS are also ameliorated to some extent.

4.3. ESIS moves towards a Managed Competition Model

Under this arrangement, ESIS would recede completely from financing, and allow commercial health insurers to instead perform that role while competing with each other for contributions of employees enrolled under the ESIS scheme. ESIS would continue to perform the functions of purchasing and providing health care services to its beneficiaries, but it would also do more. It would become a kind of sponsor in a Managed Competition model, wherein it would “*structure and adjust the market for competing health plans, to establish equitable rules, create price-elastic demand, and avoid uncompensated risk selection*” (Enthoven, 1993).

It is important to understand that managed competition is also meant to work in accordance with the MC principles outlined earlier. Thus, in this model, ESIS would be the primary authority tasked with ensuring and monitoring proper health outcomes for its beneficiaries. To provide some more detail:

- a. ESIS would continue to manage the enrolment process of its insured employees and their dependents and would serve as the single-entry point for all commercial health insurers.
- b. Registered employees would have the option to choose between different insurers and notify the same to ESIS, who in turn would notify the identified insurer.
- c. Contributions and eligibility would continue to be defined on the principles of equity, and ESIS would have the responsibility of ensuring that a beneficiary is not denied coverage for any reason, including on account of risk selection.
- d. ESIS would define the benefits package that would cover all levels of care as is presently the case, and this would be standard across all insurers.
- e. Given that there is a possibility of a disproportionate number of beneficiaries with higher/ lower risks falling into pools managed by one or more insurers, ESIS would have a role to play in monitoring and limiting the incentives for risk selection by performing suitable risk adjustment (Enthoven, 1993).

This concludes our discussion of the three pathways that ESIS could potentially take for structural reform. These pathways need not be viewed as alternatives except perhaps at any one point in time. Thus, for instance, if managed competition were the long-term destination, then perhaps moving ESIS towards managed care first, and then allowing commercial insurers and other providers to enter the ESIS ecosystem (i.e., the first two options) might be useful and necessary precursors.

4.4. ESIS expands its coverage

Irrespective of which system ESIS moves towards, we recommend that ESIS expand its coverage. As discussed in Section 3.1.1 and 3.1.2, there are still a proportion of potential beneficiaries who are eligible to be covered according to the current framework of the scheme and yet to be covered. Hence, as a first step in expanding its coverage, ESIS should ensure every eligible beneficiary is enrolled under the scheme. Secondly, we recommend that ESIS should consider increasing the wage ceiling, which as indicated earlier, is currently set to Rs. 21,000 per month. This can open up the scheme to more workers and spread the net of SHI much wider, beyond the coverage

numbers that we see today. This may well be a much quicker way of increasing ESIS coverage than to extend ESIS to the vast but difficult-to-measure informal sector, or to depend on the slow pace of increasing formalisation of the Indian economy. The increase in numbers would be good from both insurance (law of large numbers) and social equity perspectives. These two end-objectives (risk protection and social equity) are, after all, the *raison d'être* of SHI. With higher wage-earning workers enrolling with the scheme, there is also a potential for reducing the economic burden of payroll tax and an opportunity to finance broader benefit entitlements, new drugs, and technology (Hsiao & Shaw, 2007).

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Annexure

Study Name	Authors	Year	Place	No. of Participants
Employees' Awareness and Effective Utilization Towards ESI Benefits	Dr. M. Prakash & M. Ragavi	2020	Coimbatore	187 employees
An Evaluation of the Effectiveness of Medical Benefits: A Study of the Satisfaction Level of Insured Persons Regarding ESI Hospital & Dispensaries.	Dileep Singh & Prerna Singh	2019	NA	100 beneficiaries
Effective Utilization of Employee State Insurance (ESI) Policy at E-Publishing Sector	Dr. A. Ananda Kumar, Dr. D. Porkalai & Mr. A. Savio Arokiadass	2017	NA	137 beneficiaries
Effectiveness of Medical Benefits under ESI Scheme: A Study on the Employees of Organised Sector in Kolkata	Deblina Mitra	2017	Kolkatta	45 beneficiaries
An Analysis of Satisfaction Level of the Beneficiaries on Availing Services of ESIC Dispensaries in Assam	Dr. Ratan Borman & Bidyut Bikash Baishya	2014	Assam	100 enterprises and 382 insured persons
An Assessment of Awareness and Satisfaction on Employee State Insurance Scheme in The Service Sector in Kerala	Divya M. & B. Vijayachandran Pillai	2014	Malappur am district, Kerala	90 beneficiaries
A Study on Performance of The Employees' State Insurance Scheme (ESI) With Special Reference to Tuticorin District.	G. Muthu lakshmi	2014	Tuticorin district, Tamilnadu	NA
Service Quality Dimensions Under ESI Scheme on Patient's Satisfaction	Ramesh Kumar Verma, Minakshi Kharb, Neelam Kumar, Suresh Kanta, Raj Kumar & Varun Arora	2013	Rohtak, Haryana	500 beneficiaries
How Equitable is Employees' State Insurance Scheme in India: A Case Study of Tamil Nadu	Dash U and Muraleedharan VR	2011	Chennai region	900 beneficiaries
Role of Employees State Insurance (ESI) in the District of Cuttack- A Survey	B. Chandra Mohan Patnaik, Dr. Ipseeta Satpathy & Padma Singh	2011	Cuttack, Orissa	108 beneficiaries