

Summer Training

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“Assessment of ESIC beneficiaries: - Evaluating the parameters of Annual Revenue and Expenditure of ESIC and its trend from the year 2000 to 2018”

By

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Anubhav Sharma

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PART 1
SUMMER TRAINING REPORT

PART 1- WORK FROM HOME ASSIGNED BY THE ORGANIZATION

SECTION 1- ABOUT THE ORGANISATION

The Public Health Foundation of India (PHFI) was established as a response to various concerns over emerging public health challenges in India. PHFI recognizes the fact that it is essential to address huge shortfall of health professionals is essential for a sustained and holistic response to the public health concerns in the country. It was established in response to recommendation of a national consultation appointed by Government of India, which recommended setting up of a foundation to rapidly advance setting up of institutes which provide public health education, training, advocacy, and research.

PHFI was thus then launched on March 28th, 2006 at New Delhi by the then Prime Minister Dr, Manmohan Singh. PHFI is a public private initiative which is registered as a society under Societies Registration Act 1860. It is governed by an independent General Body which constitutes of representatives from Government of India, Scientific community, Indian and International academic experts, private sector, and civil society.

PHFI is bringing change in health sector by:

- a. Building a public health workforce by providing them world-class training and providing students with educational courses and training program that are relevant to Indian Public Health scenario. The courses are being provided through 5 Indian Institutes of Public Health located at Delhi NCR, Hyderabad, Bhubaneswar, Gandhinagar and Shillong.
- b. Providing support to public health programs such as AIDS Prevention, Immunization, Capacity building through technical assistance to Government of India and to the state governments.
- c. Extending support to the 'Mission Indra Dhanush' by Government of India, with a target to increase immunization from present 65% to 90% immunization rate among children of India.
- d. Implementing programme related to Infectious Disease surveillance and control and Maternal and Child Health.

- e. Promoting and programme related research by identifying and filling gaps, and to conduct health impact assessment and to evaluate innovations for improving the effectiveness and outreach of health systems in the country.
- f. Launching action against air pollution, its health effects, and advocating initiatives for advancing promotion and implementation of Universal Health Coverage.
- g. Supporting Government of India as TSU for proper implementation, monitoring and evaluation of NACO programme, which works for prevention and control of HIV/ AIDS in India.
- h. Bringing Affordable Technologies in health care sector by– introducing ‘Swasthya Slate’ for better Primary Health care in rural areas. Which is an affordable, portable, tablet based diagnostic platform for health workers in remote areas and rural areas, it is being used in RMNCH+A programme in J&K.
- i. Helping rural communities by making SHGs which help them in various Behaviour Change Programmes, which has helped rural health workers in introducing maternal and neonatal health interventions 100 talukas (blocks) in the state of Uttar Pradesh.

Vision, Mission and Values of PHFI

Table No 1: Vision, Mission and Values of PHFI

Vision	To strengthen India's public health institutional and systems capability and provide knowledge to achieve better health outcomes for all
Mission	• Developing the public health workforce and setting standards • Advancing public health research and technology • Strengthening knowledge application and evidence-informed public health practice and policy
Values	Transparency • Uphold the trust of our multiple stakeholders and supporters • Honest, open, and ethical in all we do, acting always with integrity
	Impact • Link efforts to improving public health outcomes, knowledge to action • Responsive to existing and emerging public health priorities
	Informed • Knowledge based; evidence driven approach in all we do • Drawing on diverse and multi- disciplinary expertise, open to innovative approaches
	Excellence • Aim for highest standards in all aspects of our work • Encourage, recognize, and celebrate our achievements
	Independence • Independent view & voice, based on research integrity & excellence • Support academic and research freedom, contributing to public health goals and interest
	Inclusiveness • Strive for equitable and sustainable development, working with communities • Collaborate and partner with other public health organization

SECTION 2- SUMMER TRAINING REPORT

BACKGROUND

Throughout history Humans have been living in a societal setup and are thus, also known as Social Animal. A person has so many social duties to fulfill, like looking up after their children, paying for their education, marrying them, taking care of their parents, spouse, etc. People have been dealing with the uncertainties and qualms of being able to provide the basic sustenance and needs for oneself and their families. So, these deep-rooted insecurities are brought about by unemployment, illness, disability, old age, and death. These are also known as threats to economic security.

With the rise and development in civilization and agriculture, Europe was one of the first to implement guilds and friendly societies which provided benefits to people under those associations. The “poor laws” formulated by the English in the 1601 provided security and looked after the needs if the poor of the community was replicated in America soon after.

Due to the introduction of technology, experiences, lifestyles in the post-industrialization era, there has been an increased demand for a robust social security system to provide the worker with adequate medical, cash benefit, etc. in the time of need.

According to the WHO Report on Global Health Spending 2019, there is significant reduction in out-of-pocket expenditure on Health globally and also there's a 60% increase in global public spending on health from the year 2000 to 2017, but still more than half of the population of the world does not even have full coverage of Essential Health Services. In India majority of the population are pushed towards below poverty line post one hospitalization, which is a matter of great concern. Thus, it is utmost importance that every individual should be protected from financial risks involved in using Health Services. Universal Health Coverage (UHC) aims at achieving this by the year 2030.

According to ILO ‘Social security as a right which responds to the universal need for protection against social risks and life risks. Social security systems that guarantee health protection and income security, contributing to the reduction of inequality and poverty, and promoting social inclusion and human dignity’. They do that by providing the provision in form of cash benefits

or in kind, they also ensure access to health services and medical care, providing unemployment benefits in the event of unemployment, maternity, family responsibilities, employment injury, illness, loss of the family, as well as during old age and retirement. One such Act is the **Employees State Insurance Corporation Act of 1948** (ESIC) which is first and oldest legislation schemes providing social security as well as medical benefits for the blue-collar workers of India.

ESIC Act of 1948 and benefits provided.

The Employee State Insurance Corporation Act was the first social security scheme which focused on providing financial aid and certain medical benefits to the labor-class post-independence. It came into being on 24th February 1952 and was inaugurated by out the Prime Minister Pandit Jawahar Lal Nehru in Kanpur. He was also the first honorary beneficiary under the Scheme. Initially the centers were present at Kanpur and Delhi covering about 1,20,000 employees under the scheme. In its 68 years of existence, ESIC has successfully catered to several benefits which include Health security insurance covering sickness, temporary and permanent disablement and from certain occupational hazards. It also provides maternity and vocational rehabilitation benefits and services. There are several hospitals and dispensaries under the scheme which provides these benefits.

Salient features of ESI Act.

- a. It is applicable to whole India, provided that the State Government shows its intention to implement the provision of the act in their State.
- b. The following list of establishments come under ESI Coverage, with the condition that they should have 10 or more employees.
 - i. Shops
 - ii. Hotels and Restaurants engaged only in sales
 - iii. Road Motor Transport Establishments
 - iv. Cinema Theatres
 - v. News Paper Establishments
 - vi. Private Educational Establishments run by individuals, trustees, societies, or Medical Institutions (including Corporate, Joint Sector, charitable, trust etc.)

- c. ESI Act is not applicable to: -
- i. Seasonal Factories
 - ii. Government owned factories where employees are getting better benefits
 - iii. Indian Army, Navy, Air Force.
 - iv. Factories with less than 10 workers are employed
 - v. Factories less than 20 workers working without the aid of power.
 - vi. Mines
 - vii. Employees earning more than a specified amount of wage monthly. (Present limit is Rs 21000 per month).
- d. The contribution rate of employees (as of 01.07.2019) is 0.75% of the wages and that of employer's is 3.25% of the wages paid in respect of the employees. Employees those who earn up to Rs 176/- a day are exempted from payment of contribution.
- e. There are two contribution and benefit periods which are given as under:

Table No 2: Contribution and Cash benefit period

Contribution Period	Cash Benefit Period
1 st of April to 30 th of September	1 st of January of the following year to 30 th of June
1 st of October- 31 st of March of following year	1 st of July- 31 st of December

- f. There are various social security benefits which are provided to Insured Persons under the ESIS Act which are given as under:

Table No 3: Social security benefits provided under the ESIS Act

Benefit: -	Features
Medical Benefit	Primary, Secondary and Tertiary Medical care for IPs and their family is admissible from day one of entering into insurable employment the State Governments have been entrusted with the responsibility of providing reasonable medical care to the insured persons and their family.
Sickness Benefit	Sickness Benefit represents periodical cash payments for certified sickness which require medical treatment and abstention from work, payment equal to 70% of average daily wages is payable to an IP. An IP can avail this benefit for 91 days in two consecutive benefit period.
Maternity Benefit	The insured person will receive cash benefit for the period of 26 weeks during the pregnancy.
Dependent Benefit	The family or spouse of the insured person receives 90% of the wages monthly post the death of the IP.
Disablement Benefit	The insured person is entitled to 90 % of the wages for as long as the disability continues in terms of Temporary disablement Benefit.
Others	These include funeral charges and confinement charges given to the IP's wife or insured women as reimbursement where ESIC facilities are not present

- g. The insured persons are provided some need-based benefits too, details of which are given in the table below.

Table No 4: Need based benefits provided to the Insured Persons (IP)

Benefit	Features
Vocational Rehabilitation	Vocational training is being provided to permanently disabled IPs
Physical Rehabilitation	Rehabilitation provided for disablement by injury related to employment
Old Age Medical Care	Medical care provided to Insured person post retirement
Rajiv Gandhi Shramik Kalyan Yojana	This scheme was introduced w.e.f. 01-04-2005. Under this scheme if an IP who has been insured for three or more years, and has been tendered unemployed due to closure of factory/ establishment are entitled to 50% of wage for a maximum period of 2 years, IP and their family can avail all the medical benefits too. Vocation training is also provided to enhance the skills of the IP.

Funding of ESIC

Since the day of its initiation, the ESIC has come a long way. Today, according to the 2018-2009 annual report there are up to 12,11,174 factories. The total number of people insured under the scheme has increased over the years and is about 3.49 crores and the annual expenditure on medical benefit was around 8721 crores in the year 2018-2019. The ESIC scheme has also been instrumental in promoting medical training and education and continues to contribute to the construction of hospitals, dispensaries, and rehabilitation centers.

The ESIC has been an integral part in reducing the out-of-pocket expenditure on medical and health services for the blue-collar workers. The funding for the scheme comes from mostly the contributions from employers (4.75% of the monthly salary) and employees (1.75% of the monthly salary) on a monthly basis at a fixed percentage of the worker's salary and also from the state government's contribution towards the medical benefits scheme.

There has been new revision in the rules and regulations recently which points out 5 points, namely: -

- a) The employees who earn a monthly salary for INR 21,000 or less are entitled to pay premium with an exception made for employees earning a daily wage of INR 176 or less.
- b) For online registration, a minimum of 10 days is required to process the application.
- c) Companies/organizations having an employee base of more than 20 should be registered under the scheme.
- d) The companies need to re-work the salaries of employees with an INR 21,000 or less.
- e) The contribution for scheme has been revised and brought down to employees' contribution to 0.75% and the employer's share up to 3.25%, bringing the total share up to 4 %.

Even after its enormous success in coverage and accessibility for the industrial workers, studies have proven that there are still a great deal of work to be done in terms of reaching more and more employees and increasing utilization and satisfaction of the same. The purpose of this report is to investigate the past annual reports over the span of almost two decades and evaluate the trends and patterns of expenditure and revenue and the difference in them.

ESIC 2.0

Hon'ble Prime Minister Shri Narendra Modi launched a series of Health Reforms initiatives of ESIC also known as ESIC 2.0 at Vigyan Bhawan, New Delhi on 20.07.2015.

Health Reforms Agenda of ESIC includes:

- a. Project 'Panchdeep': Under this project it was decided that EHR and Laboratory reports of ESI Beneficiaries will be available online in digital form, as it will eliminate the need of visiting hospital for same.
- b. Abhiyan Indra Dhanush: This was launched to give emphasis on hygiene and cleanliness, under this abhiyan the hospitals were instructed to improve horticulture and install flowerpots in the inner areas of the hospital. Medical superintendents were instructed to plan for morning and evening monitoring. To improve cleanliness and hygiene, the hospitals were instructed to change their bedsheets daily, and to ensure this the hospitals have been instructed to put different colour bedsheets every day on all beds using VIBGYOR Pattern.
- c. A Medical Helpline No. 1800 11 3839 was setup for emergency and seeking guidance from ESIC Hospitals.

REVIEW OF LITERATURE

There's not much literary work available, which focuses on analyzing the expenditure and revenue of ESIC. But a lot of studies have been done on utilization of benefits, awareness, and satisfaction level of the workers towards ESIC and its benefits. Although, the data regarding annual revenue and expenditure of ESIC is easily available on its website in the form of Annual Report and Financial Reports.

In its recent report of 2017-2018, Standing Committee of ESIC has presented some insights and recommendations based on their observations, which are as follows:

- a. There is a dual system of functioning in ESIC, whereas premium is collected by the Central Government, but benefits are being provided by the State Government, which leads ineffective implementation of services.
- b. The Annual Revenue which is collected as premium is double of what is being invested to provide services and benefits to the IPs. Only few states fully utilize the funds earmarked for providing these services and benefits, rest of them return the amount back to the ESIC, by terming it as "Unspent Funds".
- c. As of 31.03.2018 ESIC has not been able to team up with Ayushman Bharat.
- d. There is no provision for an audit to an employees' eligibility to avail the scheme.
- e. There is a need to introduce a regulatory system in the ESIC, which is mandatory for all insurance schemes
- f. Massive funds every year is being earmarked for the construction of medical hospitals and institutions, but there is a need to focus on utilizing these funds on providing the benefits and services to the IPs

All the above points prove the fact that there is no shortage of funds in ESIC, infact there is a huge surplus of funds. The problems lie in implementation strategy and audit systems, due to which there is a huge under utilization of resources and the funds. Instead of using these funds for better services and benefits, the funds are being utilized to construct medial colleges and hospitals. Also, there is no monitoring mechanism to check the underutilization of funds by the states.

R. Saranya, S.Arun Prasath S.Kavin in their study (Saranya, 2018) published in IJSRD on “Employees Awareness on ESI benefit” in the year 2018, analyzed the Employees awareness and satisfaction level towards the benefits provided by the ESIC. The study concluded that there was not enough awareness among the employees regarding the provisions of benefits provided by ESI in the form of social security and medical benefits. The study suggested that the awareness and knowledge regarding the scheme can be enhance using seminars, print and visual media and workshops, the services can be made more approachable and more cash benefits should be disbursed in order to attract the working class. They also suggested to open more hospitals and dispensaries in the Industrial Areas to reduce the workload and to increase the satisfaction level of the beneficiaries.

Dr. M. Prakash and M. Ragavi in their study “Employees’ awareness and utilization towards ESI Benefit” published in JETIR, (Prakash, 2020) emphasized upon utilization of services of ESIC. The study involved 187 participants from Coimbatore, who were given a predetermined questionnaire. The data acquired was analyzed using weighted averages and percentages. The study concluded that with the efforts made by the ESI for promoting and generating awareness about the scheme, about 98.4% of the employees are fully aware and utilize their social security benefits regularly. Even though it seems like a great achievement, but we need to keep in mind that this is scenario of just few states, and many other states are struggling to generate awareness and increase the utilization rate of benefits and services provided by the ESIC.

Another study done by Environics Trust in 2019 interpreted that the amount of funds that are being collected in the form of premium and other sources, is much higher than the funds that are being utilized to provide the services and the benefits. If the ESIC use the fund judiciously, it will be sufficient to provide world class healthcare services. Another important aspect pointed out by the study was that there is a huge amount of arrears which were not recovered, this indicates a faulty recovering mechanism of the scheme. They also mentioned that the faulty budget allocation has resulted in great disparity in sanctioned amount and the actual amount, which is utilized, which causes an underutilization of the funds and indicates a faulty audit system.

A Study on the Working of the Employees State Insurance Corporation by Jose, K Mathew in 2013 examined the effectiveness of the benefits provided by the Corporation to the insured persons and the study conclude that ESIC is not giving adequate information to the employee

and employer regarding the benefits of the scheme. It was also found that the quality of medical care is very poor, and the amount of cash benefits is meagre and is received very late. The IPs do not get adequate satisfactory services. The main concern of Corporation is collection of contribution from the IPs rather than providing them the services.

So, all these studies conclude that the ESIC lack in proper implementation of the services. Though there has been a surge in awareness regarding benefits and services among the IPs but there is still a long way to go, for proper organization, application of proper administration and resource allocation and utilization mechanism.

There seems to be a problem in financial management and budget allocation. One of the major problem is that there's a huge amount of funds that go unspent every year, there's a great disparity between allocated budget and actual budget, a huge amount of funds is allocated for administration and construction of medical colleges.

In this study we aim to evaluate these parameters and analyze the trend of annual revenue and expenditure. And try to analyze that is there any improvement in the system over the years.

METHODOLOGY

The present study was designed to evaluate the parameters of Annual Revenue and Expenditure of ESIC and its trend from the year 2000 to 2018. The study was done to evaluate the various Sources of Income of ESIC, expenditure on various benefits provided by ESIC, Unrecovered Arrears, disparity in Budget Allocation and reserve funds of ESIC.

Study Design: Descriptive Study

Source of Data & Study Period: Annual Reports of ESIC from 2000-2018, journals and articles on ESIC, literary papers and thesis based upon ESIC. The study covers time of eighteen years, i.e. from the year 2000 to 2018.

Data Analysis: The data was collected in tabular form, which was then used for descriptive analysis, making graphs etc. The collected data has been analyzed by using Descriptive Statistics and CAGR.

OBJECTIVE

Broad objective: -

The objective of the study is to segregate and list the various revenue sources, reserve funds and the expenditure incurred by the corporation, interpret the disparity if any and the patterns where in the corporation is lacking to implement the effective and efficient ways to provide benefits and social security to the labour class.

Specific Objectives: -

The specific objectives of the study are:

- i. To evaluate the trend and pattern of annual revenue and expenditure of ESIC.
- ii. To determine the various sources of income of ESIC
- iii. To do assessment of reserve funds of ESIC.
- iv. To analyze the various constituents of Annual Expenditure.
- v. To do descriptive Analysis of revenue and expenditure trend over the years.
- vi. To review the corpus of unrecoverable arrears over the years.
- vii. To do comparative study analysis on the returns and investments on ESIS.

FINDINGS

Annual Income of ESIC

Table No 5: Annual Revenue of ESIC through various sources from the year 2000 to 2018

Source of Revenue							
Year	Contribution	Interest	Fees, Fines & Forfeitures(a)	Rent, Rates & Taxes (b)	Other Income(c)	Total Other Income (a+b+c)	Total Income
2000-01	1255.44	242.95	3.18	57.17	5.54	65.89	1564.28
2001-02	1249.91	397.28	3.08	56.96	22.96	83	1730.19
2002-03	1302.39	326.98	3.29	58.74	13.4	75.43	1704.81
2003-04	1380.72	513.34	5.69	57.62	18.26	81.51	1975.64
2004-05	1689.08	486.25	5.84	55.3	9.59	70.37	2246.06
2005-06	1933.56	389.4	7.89	56.62	14.15	78.66	2410.62
2006-07	2453.48	578.81	9.07	48.85	17.9	75.82	3108.11
2007-08	3262.84	628.36	10.77	68.22	19.13	98.12	3989.31
2008-09	3698.53	663.27	9.37	65.86	15.41	90.64	4452.45
2009-10	3896	1110.17	10.14	61.4	7.45	78.99	5085.17
2010-11	5748.77	1132.43	7.98	65.6	25.76	99.34	6980.61
2011-12	7070.11	1188.02	25.42	60.64	49.34	135.4	8393.55
2012-13	8111.45	1914.49	15.57	60.93	36.19	112.69	10138.6
2013-14	9632.54	2173.01	28.6	56.81	18.48	103.89	11909.4
2014-15	10867.1	2606.48	29.66	54.47	30.83	114.96	13588.6
2015-16	11455.6	2807.6	33.76	49.39	25.9	109.05	14372.2
2016-17	13662.4	3069.19	32.22	55.71	32.82	120.75	16852.4
2017-18	20077.2	3196.89	36.48	57.52	112.3	206.3	23480.4

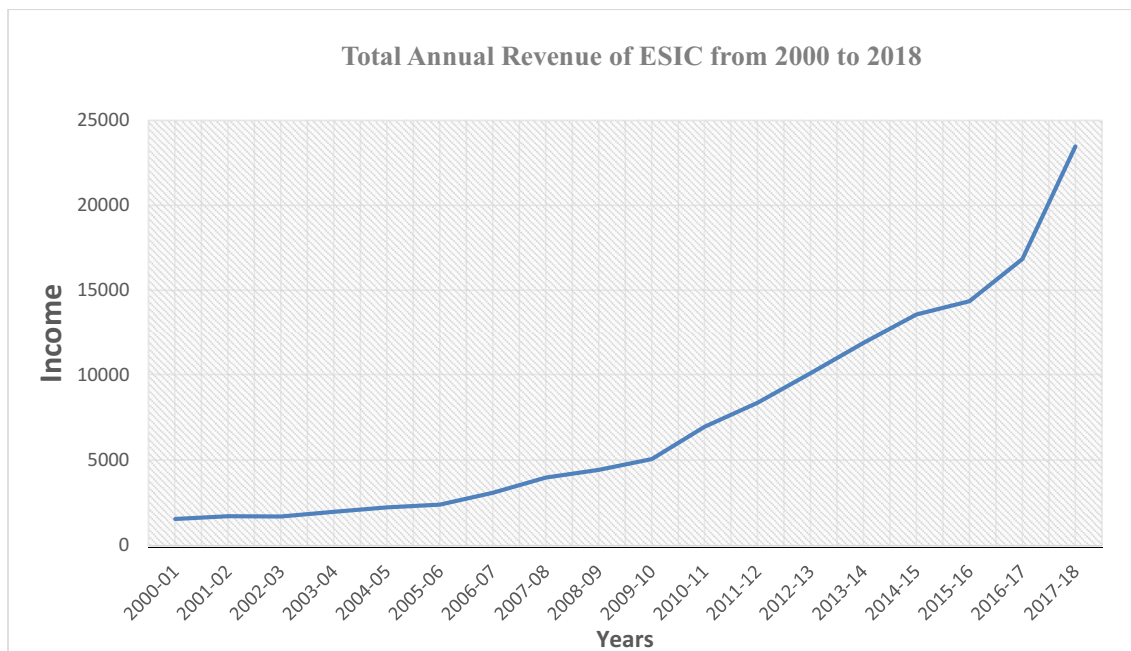


Figure No 1: Line Graph showing pattern of Total Annual Revenue of ESIC from the year 2000 to 2018

As evident from data in Table No 5 and Figure No 1, the total income of the corporation has increased many folds over the years. It has increased from 1564.28 Cr in the year 2000 to 23480.4 Cr in the year 2018 with an average increase rate of 17%. The major chunk of the income is formed by Contribution from Employees as well as Employers, which accounts for around 80% of the total income, the lowest contribution (69%) was in the year 2003-04 and highest (85%) in the year 2017-18. The other major source of income (18%) of the corporation comes in the form of interest from the SD and FD, which is being deposited with the Central Government and PSU Banks. Other small source of income (2-3%) comes in the form of Fees, Fines and Forfeitures, Rent, taxes etc.

If we interpret the graph, we can see that there's a sharp increase in the Total Annual Revenue after the year 2009-10, and it seems no steps were taken to reduce the amount, which could have been done by reducing the contribution from the employees and the employers giving them a bit of relief. Another reason can be sharp increase in income from the interest rate in the year 2009-10, and contribution in the year 2010-11.

Reserve funds of ESIC

Table No 6: Reserve funds of ESIC and its investment, from the year 2000 to 2018

Types of the Fund			The funds stand invested as under			
	Earmarked Reserve Funds	Non-Earmarked Reserve Funds	Total	FD with Public Sector Banks	SD with Central Government	Total
Amount as on 31.03.01	2755.67	3633.03	6388.7	2637.27	3751.43	6388.7
Amount as on 31.03.02	3207.34	4153.74	7361.08	3253.27	4107.81	7361.08
Amount as on 31.03.03	3505.56	4718.25	8223.81	3746.3	4477.51	8223.81
Amount as on 31.03.04	3847.25	5537.88	9385.13	4549.41	4835.72	9385.13
Amount as on 31.03.05	4223.78	6516.21	10739.99	5517.42	5222.57	10739.99
Amount as on 31.03.06	4509.05	7629.8	12138.85	6498.47	5640.38	12138.85
Amount as on 31.03.07	5454.41	8733.26	14187.67	8096.06	6091.61	14187.67
Amount as on 31.03.08	5928.81	11038.43	16967.24	10388.31	6578.93	16967.24
Amount as on 31.03.09	6225.33	13357.83	19583.16	12477.92	7105.25	19583.17
Amount as on 31.03.10	10704.93	10841.51	21546.44	13872.77	7673.67	21546.44
Amount as on 31.03.11	10460.95	14338.41	24799.36	16511.8	8287.56	24799.36
Amount as on 31.03.12	9746.64	18570.35	28316.99	19366.43	8950.57	28317
Amount as on 31.03.13	15988.43	156.5	16144.93	21971.95	9666.62	31638.57
Amount as on 31.03.14	13240.63	23627.75	36868.38	26360.77	10507.61	36868.38
Amount as on 31.03.15	15243.43	27524.08	42767.51	31239.82	11527.69	42767.51
Amount as on 31.03.16	17459.75	31897.87	49357.62	36907.72	12449.9	49357.62
Amount as on 31.03.17	20639.92	38743.06	59382.98	45937.09	13445.89	59382.98
Amount as on 31.03.18	21624.05	52724.38	74348.43	59857.11	14491.32	74348.43

ESIC has a huge pool of reserve funds which is formed for various activities such as to disburse various benefits, construction activities, depreciation etc. divided into: -

Earmarked Reserve Funds: It consists of following Capital construction reserve fund, Permanent(partial and total) disablement benefit reserve fund, Dependents benefit reserve fund, ESIC Provident fund, ESIC group insurance fund, Depreciation reserve fund of office building and staff quarters, Depreciation reserve fund of hospital building, Depreciation reserve fund of other assets (staff car replacement), Repair and maintenance reserve fund for office building and staff quarters, Repair and maintenance reserve fund of hospital buildings, Pension reserve fund, Leave encashment reserve fund, Gratuity reserve fund, PMS reserve fund, Depreciation reserve fund for medical education building.

Non-Earmarked Reserve Funds: It consists of Contingency reserve fund, and Investment of ESI General reserve.

As it is evident from the data in Table No 6, ESIC has a huge amount of reserve funds in the form of SD with Central Government and FD with the PSU Banks.

- The reserve funds of ESIC has increased from **6388.7 Cr** in the year 2000 to **74348.43 Cr** in 2018, which is a very huge amount.
- The major source of Reserve funds is the Annual Income which is left unspent in the end of the year. As there's nothing else that can be done with the funds, they are being transferred in the form of SD and FD.
- It is quite clear from this huge amount of reserve funds, that availability of funds is not a problem for providing better facilities to the IPs, but still they are being provided with substandard medical treatment. There's a very long waiting time for getting cash benefits from the ESIC.
- This shows that there's a lack of will to work for betterment of the IPs, and ESIC is more focused towards collection of premiums from the employees as well as employers.
- This huge accumulation of funds in the form of reserve funds, is not at in tandem with the vision of ESIC which was to work for the betterment of marginalized section of the society, and to provide them quality medical treatment and cash in the time of need.

Annual Expenditure of ESIC

Table No 7: Annual Expenditure of ESIC in providing various benefits and services to IPs

Benefits					Other Expenditure				
Year	Medical Benefits	Cash Benefits	Other Benefits	Total Benefits	Adm. Expenses	Contribution to Capital Construction Fund (x)	Other Expenses (y)	Total Other Expenses (x+y)	Total Expenditure
2000-01	542.29	285.64	0.77	828.7	170.95	62.77	20.16	82.93	1082.5808
2001-02	543.37	300.16	0.778	844.31	176.43	62.5	20.88	83.38	1104.1219
2002-03	565.2	285.61	0.798	851.6	177.22	65.12	24.37	89.49	1118.318
2003-04	620.38	273.97	0.807	894.35	182.77	69.03	23.51	92.54	1169.66
2004-05	686.37	264.69	0.804	951.87	199.96	84.45	21.9	106.36	1258.19
2005-06	724.11	273.74	1.15	999	210.96	19.34	49.84	69.17	1279.13
2006-07	779.78	272.31	2.43	1054.52	221.39	24.53	49.72	74.25	1350.16
2007-08	924.79	287.28	2.09	1214.16	247.97	32.63	54.08	86.71	1548.84
2008-09	1123.2	380.7	2.52	1506.45	412.76	36.98	112.63	149.61	2068.82
2009-10	1626.9	426.93	1.89	2055.75	504.36	38.96	112.72	151.68	2711.79
2010-11	2123.7	494.1	2.45	2620.23	524.2	57.49	125.68	183.17	3327.6
2011-12	2689.6	681.85	3.2	3374.67	647.06	70.7	169.25	239.95	4261.68
2012-13	4058.1	761.17	2.62	4821.92	826.12	81.11	0	81.11	5729.15
2013-14	4859.9	598.69	2.66	5461.25	1028.02	96.33	0	96.33	6585.6
2014-15	5714.3	681.97	2.56	6398.87	1210.42	108.67	0	108.67	7717.96
2015-16	6113	703.98	2.52	6819.47	1390.63	114.56	0	114.56	8324.66
2016-17	6256.6	1517.9	2.45	7776.95	1732.04	136.62	82.1	218.72	9727.71
2017-18	6867.7	642.84	2.52	7513.09	1031.06	200.07	416.44	616.51	9161.36

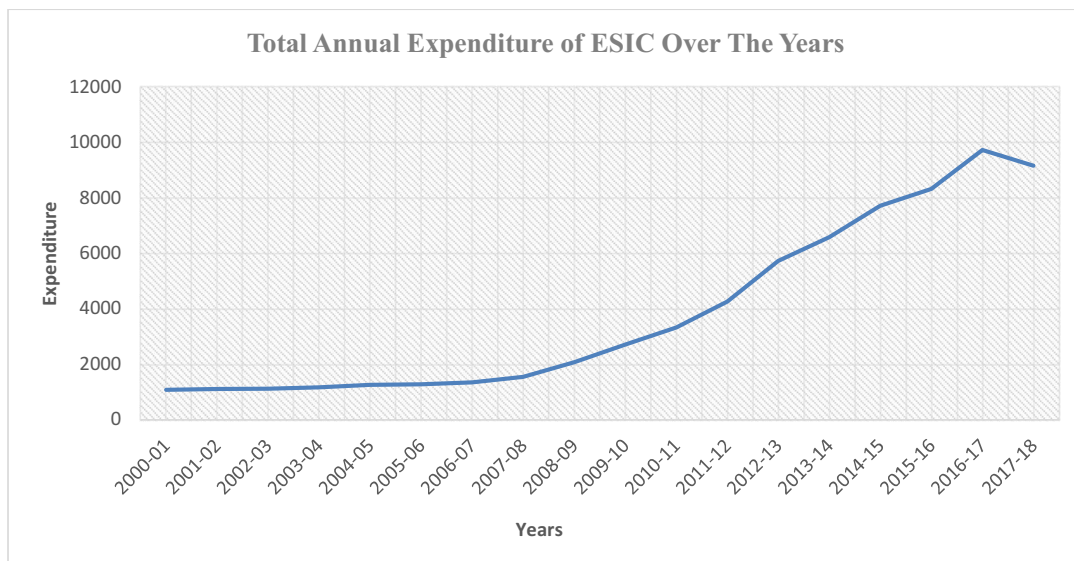


Figure 2: Line Graph showing pattern of total annual expenditure from the year 2000 to 2018

- The expenditure of ESIC has increased from **1082 Cr** in the year 2000 to **9161 Cr** in the year 2018. This is a very low rate of increase when compared with the increase in the income of the Corporation which has increased from being **1564.28 Cr** in the year 2000 to **23480.4 Cr** in the year 2018.
- The major portion of the expenditure (60%) is incurred in the form of Medical Benefits, which is being spent to provide primary, secondary, and tertiary level medical treatment to the IPs.
- Another major expenditure is in the form of Cash Benefit which accounts for around 20% of the total expenditure.
- As seen in the Figure No 1 the trend of income has increased at a much higher rate than the expenditure.
- It is also quite evident that there are no major steps taken over the years to increase the expenditure, with the huge amount of Annual Income and Reserve funds ESIC can provide world class medical treatment to the IPs. But nothing significant is being done to pass on the benefits to its end user.
- Though if we see Figure no 3, we can observe that expenditure on Medical Benefits has increased over the years. But the expenditure on Cash Benefits and Adm. Expenses is quite similar over the year. There is no significant increase in them.

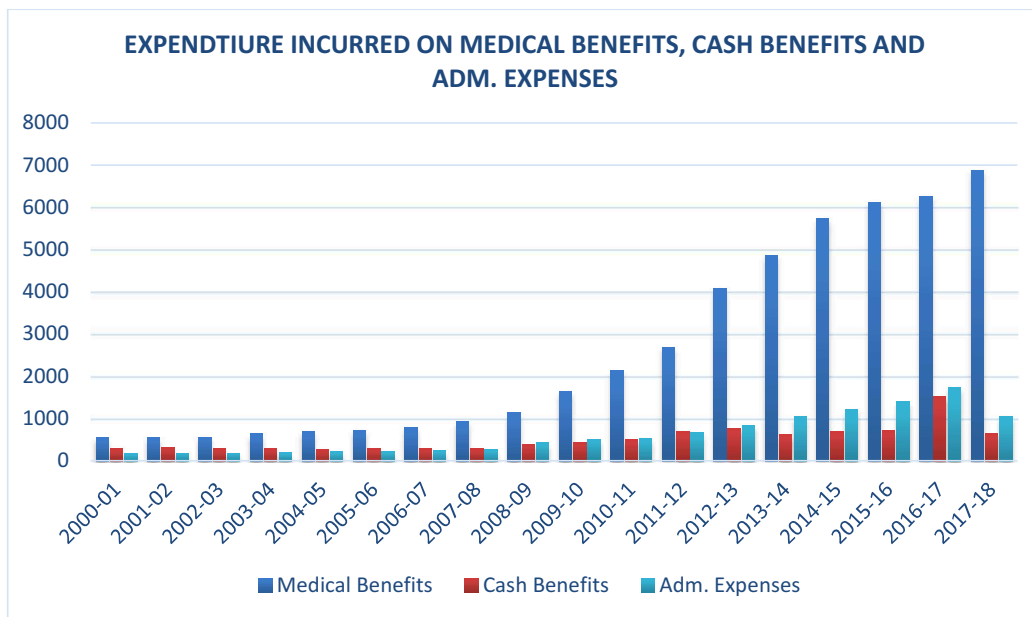


Figure No 3: Bar graph showing expenditure incurred on Medical Benefits, Cash benefits and others from the year 2000 to 2018

Income and expenditure Analysis: - Excess income over expenditure

Table No 8: Income and Expenditure in crores (INR) incurred by the ESIC from the year 2000 to 2017.

Year	Annual Revenue	Annual Expenditure	Surplus Amount
2000	1564.28	1082.58	481.7
2001	1730.19	1104.12	626.07
2002	1704.81	1118.32	586.49
2003	1975.64	1170.48	805.16
2004	2246.06	1258.19	987.87
2005	2410.61	1278.96	1131.65
2006	3108.11	1350.16	1757.95
2007	3989.32	1548.84	2440.48
2008	4452.45	2068.83	2383.62
2009	5085.17	2711.82	2373.35
2010	6980.61	3327.6	3653.01
2011	8393.55	4261.69	4131.86
2012	10138.63	5729.15	4409.48
2013	11909.44	6554.67	5354.77
2014	13588.58	7713.57	5875.01
2015	14372.22	7874.75	6497.47
2016	16582.38	9727.71	6854.67
2017	23480.37	9161.36	14319.01

As it is evident from the table above that there is a huge amount of fund which is left unspent in the end of the year. per the financial reports. Table above lists the expenditure and income of the ESIC from the year 2000-2017. It is quite clear by the table there is a surplus of funds acquired by the corporation as contribution from the employers and employees over the years and this margin has been increasing every year.

This whole situation is totally opposite to the vision of ESIC, as the surplus amount is increasing every year and nothing concrete is being done to increase the amount of annual expenditure. Infact the expenditure has shown a decreasing trend in recent years.

This is a very poor situation with regards to ESIC as such huge amount of fund left unspent every shows poor utilization of funds, and it is evident that very less amount is being used to provide health and social security service to the IPs.

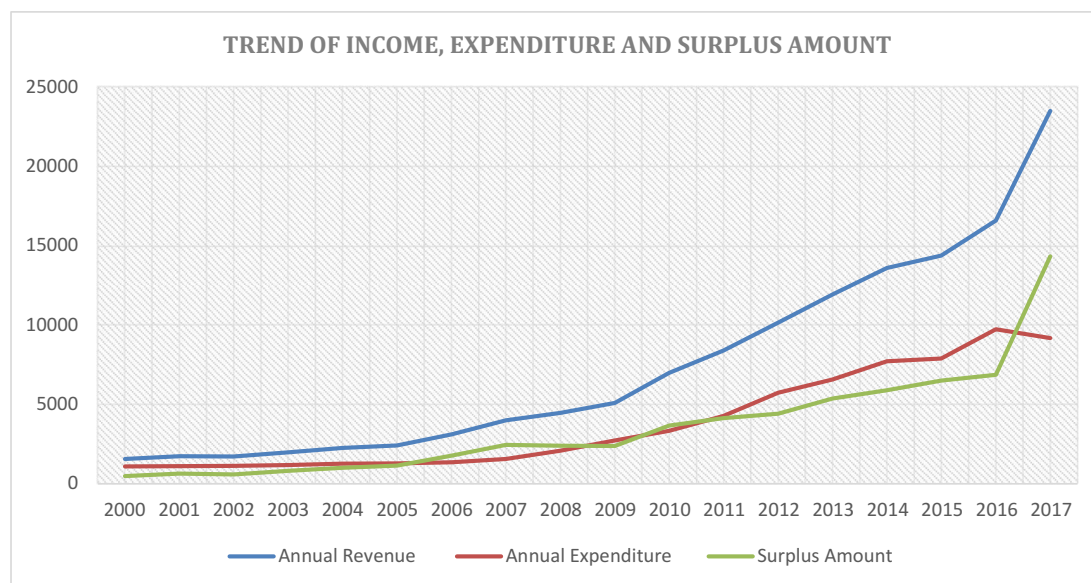


Figure No 4: Graphical representation of trend of Income, Expenditure and Surplus amount of ESIC from 2000 to 2017.

Premium Contribution vs. Revenue Expenditure

Table No 9: Premium contribution vs. Revenue Contribution from the year 2000 to 2017

Year	Premium Contribution	Revenue Expenditure
2000	1255.44	1082.58
2001	1249.91	1104.12
2002	1302.39	1118.32
2003	1380.72	1170.48
2004	1689.08	1258.19
2005	1933.56	1278.96
2006	2453.48	1350.16
2007	3262.84	1548.84
2008	3698.53	2068.83
2009	3896	2711.82
2010	5748.77	3327.6
2011	7070.11	4261.69
2012	8111.45	5729.15
2013	9632.54	6554.67
2014	10867.1	7713.57
2015	11455.6	7874.75
2016	13662.4	9727.71
2017	20077.2	9161.36

If we observe Table no 9 closely, we can interpret that the premium contribution is quite sufficient for the amount which is being spent to provide medical and cash benefits to the IPs. Since the contribution amount taken in the form of premium from the IPs has been nearly constant over the years, the reason of increase in total contribution amount can be attributed to:

- The increase in the implementation and coverage of ESIC, as many states have been brought in the purview of the scheme in the recent years.
- Increase in the number of employees and employers due to increase in number of factories and establishments registered under the scheme.
- The salary slab of the employees have been increased over the years, which has brought more and more employees under the scheme.

Thus, even if we forego other sources of income such as interest from investment and rents and fines, the contribution amount is sufficient to facilitate the expenditure of medical and cash benefits.

Recovery of arrears

As evident from the table below, there is a huge amount of unrecovered arrears. The table provides a detailed insight into huge amount of unrecovered funds every year, and these figures have been increasing each year.

Table No 10: Outstanding Arrears of ESIC from the year 2000 to 2017

Year	The break-up of outstanding arrears
2000	41.37
2001	42.01
2002	57.61
2003	59.61
2004	136.66
2005	148.20
2006	68.64
2007	101.81
2008	63.29
2009	62.07
2010	129.29
2011	84.39
2012	189.8
2013	185.24
2014	308.64
2015	299.33
2016	112.88
2017	710.45

Except for the years 2000-2003,2006, 2008, 2009 and 2011, all the remaining year has seen an enormous amount of arrears which is in the tune of 100 Cr. This indicates that ESIC has faulty recovery mechanism with regards to arrears retrieval.

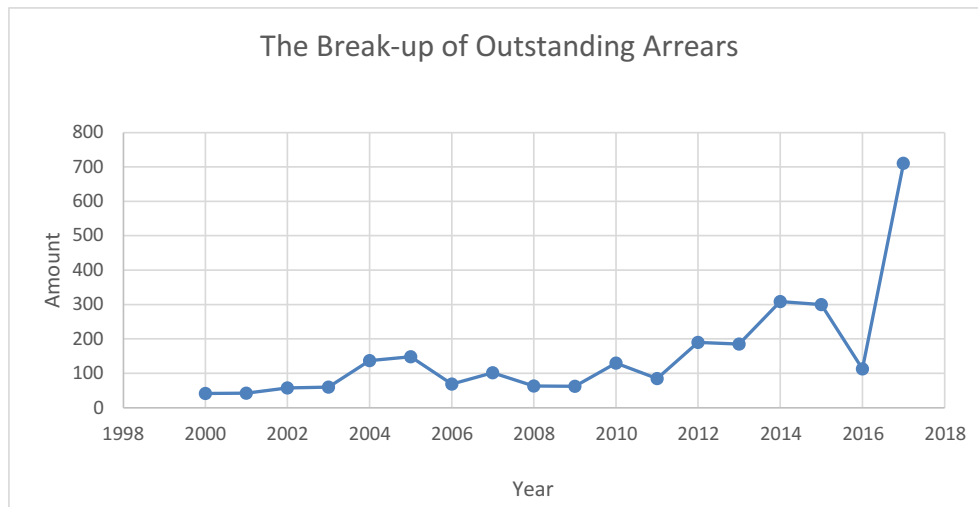


Figure No 5: Graphical representation of the outstanding amount of arrear

The main reason of such huge amount of arrears are the unrecovered amount of premium from industries that are termed as sick industries and who are administered under the BIFR (Board of Industrial and Financial reconstruction).

Budget

Another major concern is the over estimation of Expenditure. The table below clearly shows that the total expenditure is far less than the allocated budget. There is only one year i.e. 2012 in which the budget cutoff is very close to actual expenditure.

This excess in estimates infers that there is improper evaluation and lack of judgement on the part of corporation, in deciding the budget for the upcoming financial year. The corporation should make proper budget estimates and try to implement and monitor it judicially.

Table No 11: Over estimation of the required Budget from the year 2000 to 2017

Year	Budget Estimates	Expenditure	Difference
2000	--	1082.58	--
2001	1287.39	1104.12	+183.27
2002	1401.02	1118.32	+282.7
2003	1498.2	1170.48	+327.72
2004	1484.07	1258.19	+225.88
2005	1644.91	1278.96	+365.95
2006	--	1350.16	--
2007	--	1548.84	--
2008	2130.71	2068.83	+61.88
2009	3399.05	2711.82	+687.23
2010	3890.71	3327.6	+563.11
2011	5079.7	4261.69	+818.01
2012	5749.63	5729.15	+20.48
2013	7119.18	6554.67	+564.51
2014	8759.6	7713.57	+1046.03
2015	8877.37	7874.75	+1002.62
2016	10654.47	9727.71	+926.76
2017	15361.01	9161.36	+6199.65

**the budget estimates for years 2000,2006 & 2007 are not available*

Descriptive Statistics

Table No 12: Descriptive Statistics of Income and Expenditure of ESI Scheme from the year 2000 to 2018

	MEAN	ST. DEVIATION	MAX	MIN	CAGR (%)
1.INCOME					
1.1 CONTRIBUTION	6041.5083	5327.81808	20077.18	1249.91	17%
1.2 INTEREST	1301.3844	1037.2537	3196.89	242.95	15%
1.3 FEES, FINES & FORFEITURES	15.445	11.9133643	36.48	3.08	15%
1.4 RENT, RATES & TAXES	58.211667	5.08260615	68.22	48.85	0%
1.5 OTHER INCOME	26.411667	24.0648382	112.3	5.54	18%
TOTAL INCOME	7789.3024	6358.95936	23480.37	1564.28	16%
2.EXPENDITURE					
2.1 MEDICAL BENEFITS	2601.0767	2352.01628	6867.73	542.29	15%
2.2 CASH BENEFITS	507.46278	311.274549	1517.93	265.49	5%
2.3 OTHER BENEFITS	1.9453889	0.83906006	3.2	0.77	7%
2.4 ADMINISTRATIVE EXPENSES	605.21222	487.878735	1732.04	170.94	10%
2.5 CONTRIBUTION TO CAPITAL CONSTRUCTION FUND	75.658889	44.4978681	200.07	19.34	7%
GRAND TOTAL (expenditure)	3862.3339	3147.41915	9727.71	1082.58	13%

CONCLUSION

On observing so many findings and seeing so many tables and graphs, many conclusive points can be made regarding utilization of funds, health services and infrastructure. One thing is quite clear that there is no problem of flow of funds, infact the flow of fund is surplus to the amount which is being spent on providing the services. Infact with the amount which is available to the corporation they can provide world class health services to the IPs free of cost.

Seeing the current situation of ESIC, few conclusions can be made which are listed below:

- a. The annual income of ESIC is very high and most of the income comes in the form of Premium from the employees and employers. A significant amount comes in the form of interest from the investment, which has been increasing over the years. And despite of increased income from other sources, only recently the contribution amount has been decreased, which could have been lowered further to provide relief to both employees as well as employers.
- b. There is a huge amount of reserve funds which is in the tune of thousand's of crore is left unutilized in the form of FD and SD, and corporation is doing nothing to use these funds to improve the medical facilities for the IPs. Instead it is being use as a source of income as it provides around 20% of Annual Income in the form of Interest.
- c. There is an enormous amount of underutilization of funds as corporation can utilize 50-62% of allocated funds, and rest is being left as surplus. The reason can be poor implementation and planning. It can also be due to lack of will in the part of ESIC to provide quality treatment to the IPs. Also, nothing concrete is being done to increase the expenditure, this shows that priority of ESIC is to collect premium rather than providing services and benefits to the IPs.
- d. The annual budget is made without much evaluation of the actual need. This shows faulty audit mechanism, as huge amount is left unspent every year.
- e. The annual reports of the recent years have revealed that most of the funds are being utilized for construction of medical college and its administration.
- f. The excess funds remain unutilized and is not carried over to the next financial year and is transferred to Earmarked and Non-Earmarked Reserve funds.

- g. The non-recovered arrears show inefficient recovery mechanism of the ESIC, the amount which is left uncollected could have been used to finance the health services and other benefits provided by the ESIC.
- h. Another problem which is persistent over the years is the lower disbursement of Cash Benefits, which has infact decreased over the years i.e. from 26% in the year 2000 to 7% in the year 2017-18, despite of the fact that the implementation and coverage of ESIC has increased over the years, but the decrease in cash benefits indicates of a problem in disbursement of funds. The reason can be increased scrutiny, increase in average time to receive funds and another reason which is very persistent is the rejection of benefits claim by the Corporation.

If the corporation can solve some of these problems, then there would be a plenty of resources that will be available to provide the services in the best way possible. Another major area where corporation needs to work is Proper implementation of the services, and the duality of the functioning of ESIC should be worked upon. As it leads to improper planning and implementation, due to two agencies being involved. The collection of premium and providing the services should be brought either in the purview of central government or state government. This duality in the system leads to improper allocation and utilization of the funds. Also, the amount kept in reserve funds should be used to strengthen the existing health services to the IPs, instead of using them for construction of Medical Colleges and other facilities which are of less use to the IP.

RECOMMENDATIONS

As the above-mentioned conclusive points, tables, graphs have made it quite clear that there is huge underutilization of funds in the ESIC. Also, there is no representation of any independent party in the corporation, which leads to low scrutiny, poor implementation, and no monitoring at all.

- There should be a proper third-party surveillance system to monitor the expensed incurred in providing the medical benefits, cash benefits.
- There should be a quarterly audit of the Expenditure by agencies such as CAG to track the utilization of the funds, and to detect any misappropriation timely.
- The huge amount of reserve funds which is left unused should be utilized for strengthening the existing healthcare facilities and systems.
- ESIC should be teamed up with Ayushmann Bharat as it will increase the number of healthcare facilities which can be used to provide services to the IPs and thus it can increase the implementation and coverage of the ESI scheme.
- The focus of the ESIC should be to provide world class healthcare services to the IPs. Even though the services have improved significantly in the recent years, but still more can be done to create an impact holistically.
- Though ESI has revised the contribution of scheme and has brought it down significantly i.e. employees 'contribution to 0.75% and the employer's share up to 3.25%, bringing the total share up to 4 %. But still more relief can be given in further reducing the share of Employers, which can help them financially. Especially in this trying times of COVID-19 Pandemic.
- Also, there should be audit of health benefits and cash benefits regularly, there should be timely audit to decide the diseases for which the IP can avail free treatment. The system of providing cash benefit should be made more transparent and faster. There should be a FastTrack system to receive the request for cash benefit and then disbursing it to the person in need.

ANNEXURE

Table No 13: Table representing percentage of contribution, interest on investment and other total income to total income, year wise

Year	Contribution	Interest on Investment	Other Income	Total
	Percentage in relation to total Income			
2000-01	80.26	15.54	4.22	
2001-02	72.25	22.97	4.8	
2002-03	76.4	19.18	4.43	
2003-04	69.89	25.99	4.13	
2004-05	75.21	21.65	3.14	
2005-06	80.22	16.16	3.27	
2006-07	78.94	18.63	2.44	
2007-08	81.79	15.76	2.46	
2008-09	83.07	14.9	2.04	
2009-10	76.62	21.84	1.56	
2010-11	82.36	16.23	1.43	
2011-12	84.24	14.16	1.62	
2012-13	80.01	18.89	1.12	
2013-14	80.89	18.25	0.88	
2014-15	79.98	19.19	0.85	
2015-16	79.71	19.54	0.76	
2016-17	81.08	18.22	0.72	
2017-18	85.51	13.62	0.88	

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PART 2
ONLINE COURSE REPORT

PART 2: ONLINE COURSE REPORT

NAME OF THE COURSE

Fixing Healthcare Delivery and Fixing Healthcare Delivery 2.0 by University of Florida by Dr Frederick S. Southwick, MD

COURSE DESCRIPTION

100,000 patients die annually because of preventable medical errors, and over 1 million patients suffer life-changing injuries. Despite the calls to action medical errors continue at the rate of 1 out of 10 patients. How can those of us who help to deliver care and those of us that receive care help to prevent harm? There are 5 fundamental areas each of us needs to understand and use to fix healthcare delivery:

1. Apply the principles of high performing manufacturers and athletic teams to continually improve our processes.
2. We all need to learn how lead and be part of multidisciplinary teams that include patients and coordinate the care they receive.
3. The human brain continually makes errors. Certain conditions increase the likelihood of errors, and these need to be avoided. Systems can be designed that force the right behavior, and second checks can help caregivers provide the right care at the right time and in the right place.
4. We all need to become effective leaders. Most importantly we must practice adaptive leadership, that is, leadership that promotes a true change in the way things are done.
5. Finally we all can utilize the campaign methods of successful politicians and advocacy groups to change the attitudes of our fellow caregivers and patients, and thereby change the culture of our healthcare systems.

During this 13- module course we will be provided with the tools to accomplish all 5 of these goals, and as an individual you can truly make a difference. Why do we need to understand about systems? How do we evaluate a system and as a patient or provider what characteristics do you think are important? How does quality relate to safety? These are important questions that we all need to have answers to as we learn how to improve how we deliver and receive healthcare.

Toyota Production System (TPS) or Lean has allowed Toyota to become the number one automobile manufacturer in the world by progressively improving the quality and reliability of their products. The System of Profound Knowledge developed by the American, W. Edward Deming is the basis for TPS or Lean. This system has now been adapted to healthcare by Virginia Mason Medical Center and Denver Health with exciting results. We will be introduced to the 4 principles of TPS, as well as the TPS House that illustrates how the various tools of TPS fit together to continually add value to the care of patients. The challenges faced by both health systems will be discussed and their approaches to transforming their delivery systems described. When Lean is applied to healthcare, patient care improves, and both patient mortality and the cost of care decrease. Applying Lean to healthcare systems can revolutionize how healthcare is delivered.

OBJECTIVES OF THE COURSE

Broad Objective: The broad objective of this course is to the apply the principles of high performing manufacturers and athletic teams to continually improve healthcare system. And to learn manufacturing principles of the Toyota Production System in detail.

Specific Objectives:

The specific objectives of the course are:

- a) To learn the concept of value stream, workflow diagrams and 80/20 used in manufacturing, and to apply it to patient care.
- b) To learn about the 8 ways of waste reduction in healthcare.
- c) To discuss how athletic principles can be used to encourage teamwork, improve efficiency, and increase the quality of patient care.
- d) To launch and coach a team, and to manage the complex dynamics of teams. Finally, we will discuss how to create a self-improving team.
- e) To discuss the consequences of medical errors, and to learn need three key tools to determine the causes of medical errors and to fix them,
- f) To learn Root cause analysis, Driver Diagrams, and PDSA cycles.
- g) To discuss the issue of small errors and our tendency to ignore and workaround them.
- h) To learn about concept of reliability and it is needed to dramatically improve the reliability in health care.
- i) To discuss the need in healthcare for adaptive leadership.
- j) To learn how to overcome our natural immunity to change.
- k) To learn about the 4 principles of TPS
- l) To categorize 8 forms of waste and allowing everyone on the front lines to recognize waste and work to remove it.
- m) To introduction to tools which will help us to effectively design standardized work such as the spaghetti diagram and the Time Observation Sheet.
- n) To learn about concepts of Value stream mapping.
- o) To use the Time Observation Sheets to fill out Value Stream Map, including determining WIP (work in progress)

LEARNING METHODOLOGY

The course was based on following components:



Figure No 6: Learning methodology used in the course Fixing Healthcare Delivery

COURSE CONTENT

Table No 14: Course Content of the Course Fixing Healthcare Delivery and Fixing Healthcare delivery 2.0

WEEK 1 HOURS 1 INTRODUCTION TO HEALTHCARE DELIVERY	•Introduction •Who was caring for Mary? •Quality, Safety and Healthcare Delivery System •Systems and Quality
WEEK 2 HOURS 2 APPLYING MANUFACTURING PRINCIPLES TO IMPROVE HEALTHCARE	•Applying Manufacturing Principles to Improve Healthcare Overview •Lessons we can learn from Industry I •Value Streams Digging Deeper •Lessons we can learn from Industry Part II •Lessons we can learn from Industry Part III
WEEK 3 HOURS 2 HEALTHCARE REQUIRES TEAMWORK	•Healthcare requires Teamwork Overview •Teamwork in Healthcare: How well do we work in teams? •Athletic Principles in Healthcare •Overview of term STEEPS
WEEK 4 HOURS 3 UNDERSTANDING AND PREVENTING HUMAN ERROR	•Understanding and Preventing Human Error Part I Overview •Medical Errors the Human Toll •To Err is Human •PDSA Cycle
WEEK 5 HOURS 3 UNDERSTANDING AND PREVENTING HUMAN ERROR PART II	•Understanding and Preventing Human Error Part II •How do we know if a Change is an Improvement Part I •Run Charts •How do we know if a Change is an Improvement Part II •How Reliable is Healthcare? •How can we reduce Human Error? •What Happens when a patient is harmed?
WEEK 6 HOURS 3 WE ALL CAN LEAD: BECOMING AN ADAPTIVE LEADER	•We all can lead: Becoming an Adaptive Leader: Overview •Who should lead? •Adaptive Leaders: A necessity for healthcare delivery •Practise Adaptive Leadership

WEEK 7 HOURS 3 HOW ORGANIZING PEOPLE CAN DRIVE CHANGE IN HEALTHCARE DELIVERY	• How organizing people can drive change in healthcare delivery overview • Organizing in Healthcare: The Early Phase • One on Ones and Personal Narrative • Leadership, Strategy, Tactics & Action
WEEK 8 HOURS 3 IMMUNITY TO CHANGE	• Immunity to Change • Summing it all up • What can I do?
WEEK 9 HOURS 3 INTRODUCTION TO APPLYING TPS OR LEAN TO HEALTHCARE	• Why TPS? • What are fundamental Principles of TPS • How does a health system Implement TPS?
WEEK 10 HOURS 3 WASTE REDUCTION	• Removing Waste: The best way to reduce Cost • 5S
WEEK 11 HOURS 3 STANDARDIZED WORK	• Standardized Work (Part 1 to 4)
WEEK 12 HOURS 3 VALUE STREAM & PROCESS MAPPING, RIE AND LEVELLING FLOW	• Value Streams • Process Mapping • Rapid Improvement Events • Levelling Flow
WEEK 13 HOURS 3 ERROR PROOFING AND VISUAL CONTROLS	• Error Proofing • Visual Control • Using KPIs

KEY LEARNINGS FROM THE COURSE

a. Quality in Healthcare:

When we talk about quality in Healthcare, we need to ask the questions like how reliable is the treatment we are giving to the patient? How long will it last? We should not just focus on the outer Aesthetics, but whole process. Our main aim should be to improve quality as well as safety of the patient.

And quality should be measure through the eyes of the beholder. Customer satisfaction should be of utmost importance in the healthcare. Every Healthcare Organization should work in a patient centered approach. And instead of asking Quality Team that what went well, the question should be asked directly to the patient and their family members. We should ask them that what went well? What can be improved?

b. Systems role in Quality:

Systems play a very important role in improving the quality. So, we define System, as and Interdependent group of items, people or process working together towards a common purpose. Systems can be divided into following four types:

Micro Systems	Simple Systems	More Complex Systems	Most Complex Systems
• It refers to a system where there is a single physician, one parttime nurse and an appointment clerk • It usually refers to standalone clinics where there is not much complexities in the system	• In this system only few inteerelated components are there. • Electronic Health Records in an example of Simple Systems	• In this system many components and steps are there. • For example: A patient who has gone to physician further refers him to a specialist	• In this type of system, may interelated components are there • For example: ER Transfer to the ICU, ER and ICU team

Figure No 7: Types of System in Healthcare

The most common cause of error in healthcare is due to poor System, so here is a framework which can help us improve quality of our systems in Healthcare. It is known as STEEPS Framework, which was developed by Don Berwick.

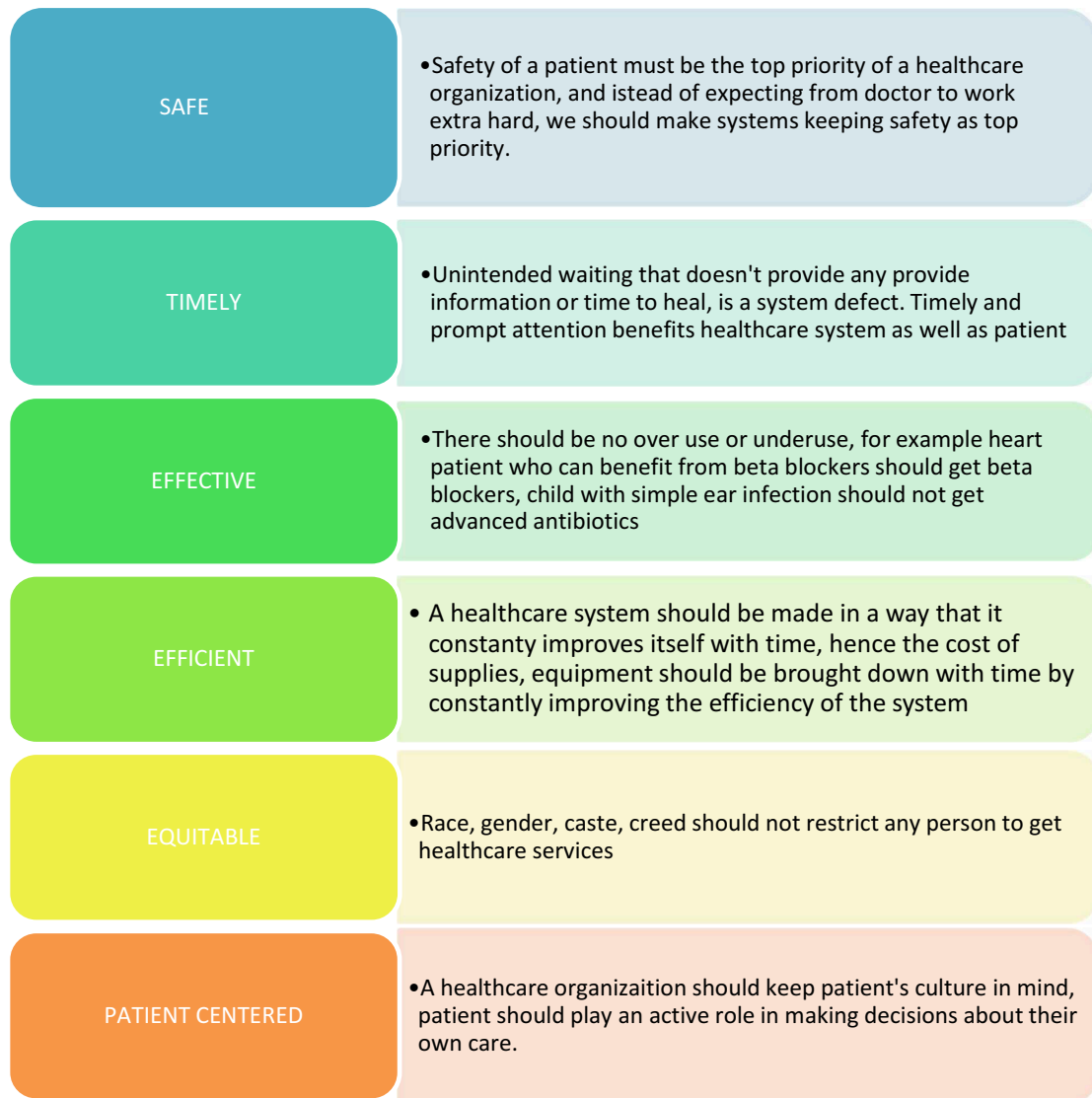


Figure 8: STEEPS Framework to improve healthcare

c. Teamwork in Healthcare: How well do we work in teams and applying Athletic Principles in Healthcare

When we talk about teamwork in healthcare, it is very poor. It is very difficult to get a multidisciplinary team in healthcare system to work together. We can improve teamwork by applying athletic principles to healthcare teams:

Few of the athletic principles that can improve healthcare delivery are:

- Playbooks (Protocols): A proper SOP should be made for every patient, and the leader of the team should be the patient, the decision of the patient should be final, in the type of treatment that they want
- Whose passing and receiving (customer- supplier relationships): Patient should be made aware of what treatment they are getting, and their consent should be taken at every step.
- Game Films (Continual Improvement): Every healthcare organization should work towards continual improvement; they should ask after every process that what was done better and what could be done better.
- Huddle: There should be a huddle like formation around the patient, with every member repeating that treatment protocol, which can help in reducing errors

d. How to launch and coach a team, manage the complex dynamics of teams and create a self-improving team.

Leadership: “Leadership is accepting responsibility to create conditions that allow others to achieve purpose in the face of uncertainty” – Marshall Ganz

To create a team the first step is to agree on a common measurable goal:

- It must link directly to the personal narrative.
- Outcomes must be measurable.
- The outcomes should not be too narrow or too broad.

Snowflake model: Each leader trains many others to become leaders and these leaders further train others to be leader, this a continual increase in people power.

Making a team is very difficult, but here are some tools which can help in creating a self-improving team, by meeting like minded people and applying following process:

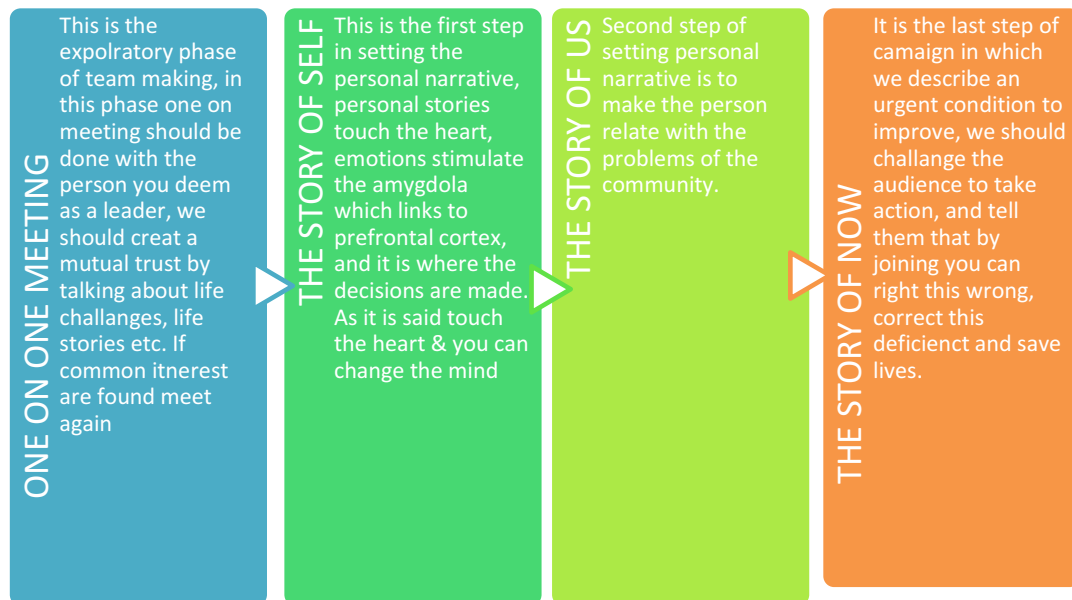


Figure No 9: Making a team

- e. Another very important learning from the course was the three key tools to determine the causes of medical errors and how to fix them, namely Root cause analysis, Driver Diagrams, and PDSA cycles.

Medical Errors: Error can happen due to many reasons such as error in a system or a human error, conditions that because human error are Lack of sleep, stress, and multitasking.

Here are few tools which can help us to improve if an error occurs:

- Root Cause Analysis:

Root cause analysis can be done by following these steps:

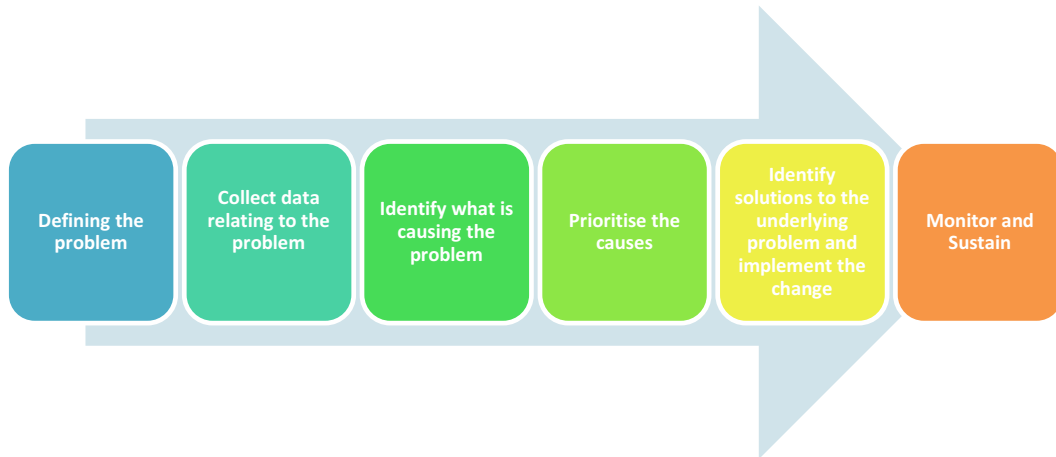


Figure No 10: Root Cause Analysis

- Driver and Fishbone diagrams- Ask why five times.

In this tool we determine the Why this happened five times, with each question being predecessor of the previous:

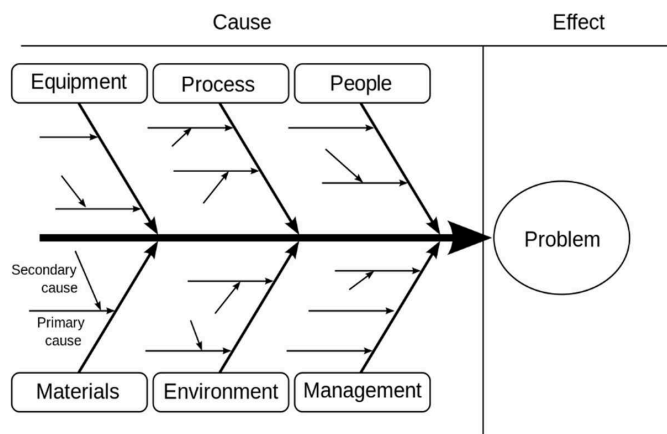


Figure No 11: Fishbone Diagram

- Plan-Do-Study-Act Cycles

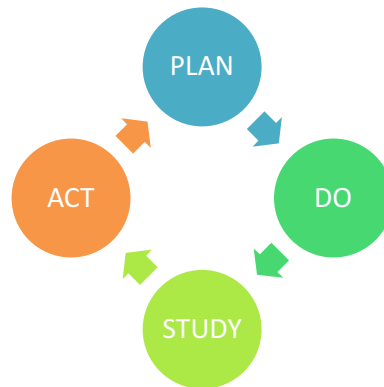


Figure No 12: PDSA Cycle

- The use of run charts to differentiate random or common cause from specific cause variation.

A run chart, which is also known as a run-sequence plot, is a graph that displays observed data in a time sequence. The data displayed represent some aspect of the output or performance of a manufacturing or other business process. It is therefore a form of line chart. By observing the graph, we can determine that whether the change is due to common cause or specific cause.

- Learnt the need in healthcare for distributive leadership that is also known as adaptive leadership. In today's world adaptive or innovative leaders are a necessity for improving the quality and safety of healthcare.
- The four basic components of TPS
 - A system is an interdependent group of items, people or processes working together to achieve a common purpose. Common purpose is critical because it aligns the parts of the system.
 - The importance of understanding variation because everything we observe varies. And it is very critical for management to be able to differentiate change, that is due to luck or chance, a.k.a common cause variation, or it is from change due to a new condition or intervention a.k.a specific cause variation.

- iii. The third component of this system is building knowledge. When creating improvement plans, the expert must have a deep knowledge on how a system function. A carefully constructed hypothesis allows the design of interventions to validate the theory. Knowledge progressively advances by making changes, performing experiments, and measuring the outcomes. These are called PDSA cycles.
- iv. The fourth and final component of this system, is the human side of change. Before implementing changes in the way things are done, we must understand how people interact with each other and the system and understand how they will react to specific change.

i. Waste in healthcare:

The main aim of this course was to improve the systems, and as we read earlier that all the systems and organization have waste in their systems, waste can be classified into following 8 types:

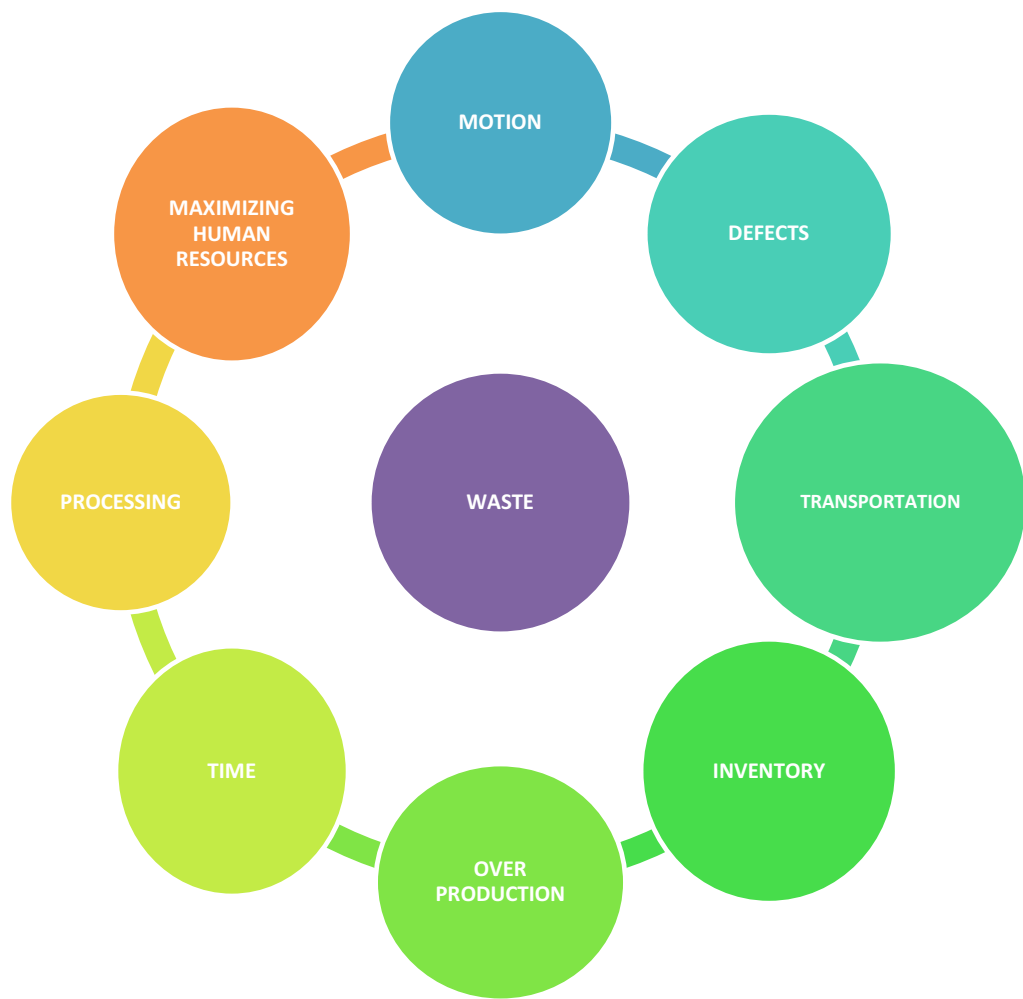


Figure No 13: Types of Waste

- j. One of the most common problem in healthcare is waste, so we can use 5S concept to reduce waste, 5S stands for the 5 steps which are:

- Sort
- Set in Order
- Shine
- Standardize
- Sustain.

These steps involve going through everything in a space, deciding what is necessary and what is not, putting things in order, cleaning, and setting up procedures for performing these tasks on a regular basis.

- k. Learnt how to make Value stream maps of a process, also known as "material- and information-flow mapping", which is a method used for analyzing the current state and designing a future state for the series of events that take a product or service from the beginning of the specific process until it reaches the customer. It is a visual tool that displays all critical steps in a specific process and easily quantifies the time and volume taken at each stage.
- l. One of the last and most important learning from the course was to learn about Visual Control, which is a business management technique in which information is communicated by using visual signals instead of texts or other written instructions. The design is deliberate in allowing quick recognition of the information being communicated, to increase efficiency and clarity.