

SUMMER TRAINING REPORT

ON

Part-1: Secondary Research Study on ‘Gender Disparities in Inpatient Care in India’.

Part-2: Key Learnings from the Online Course on Coursera ‘Essentials of Global Health’.

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PART-1

SECONDARY RESEARCH STUDY ON THE TOPIC “ GENDER DISPARITIES IN INPATIENT CARE IN INDIA”

INTRODUCTION

- Gender Equity can be defined as —
‘a process of being fair to women and men with the objective of reducing unjust and unavoidable inequality between women and men in health status, access to health services and their contributions in the health workforce’, WHO(2011) [1].
- Universal Health Coverage (UHC) was launched in India with expectations of achieving gender parity in health [2].
- Despite the steps being taken, there is a strong presence of gender inequality in health which varies with respect to —

Region

Socio-
economic
status

Class

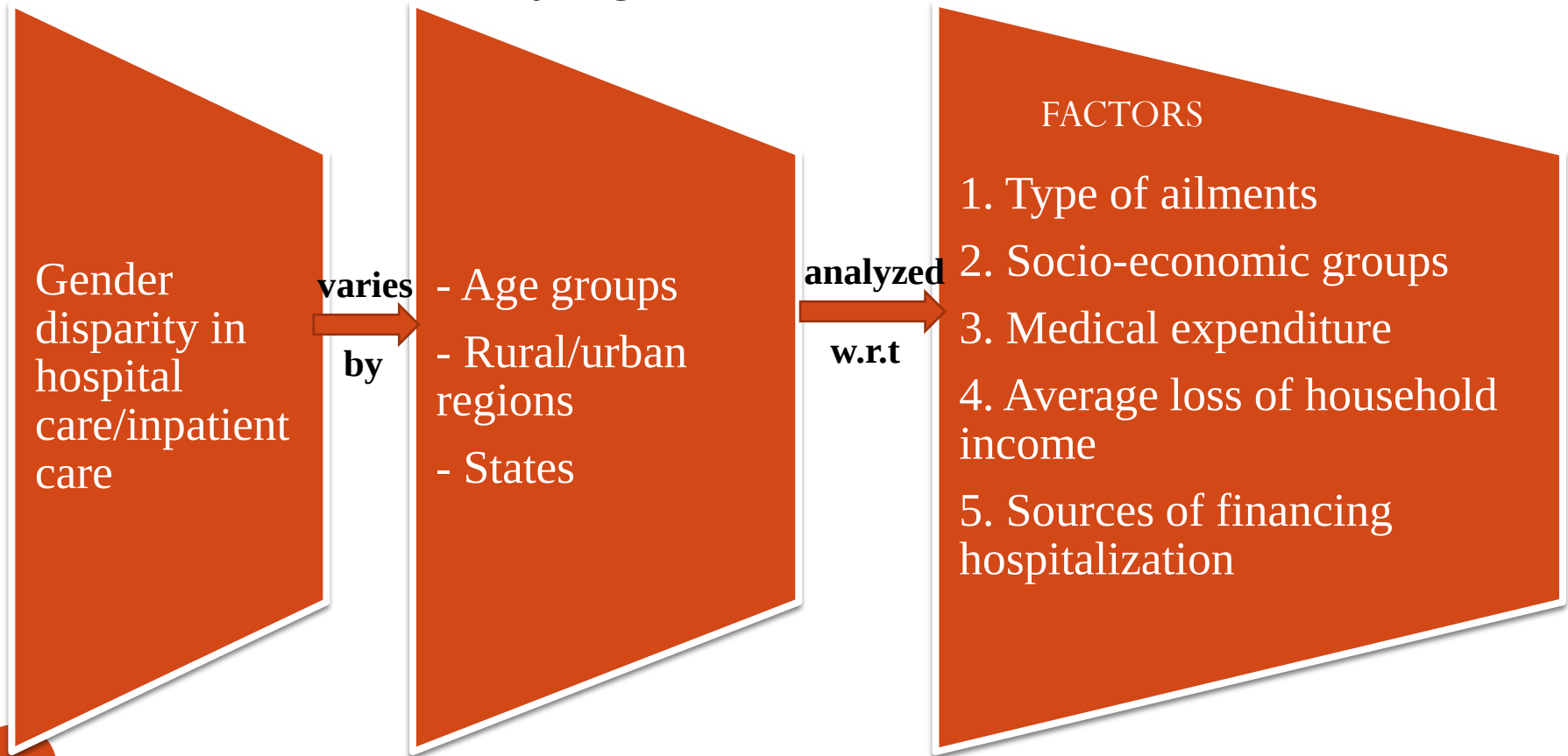
Religion

Caste

Sexuality etc.

- Existing studies tend to correlate the extent of gaps found but the reasons are yet to be rooted out. Also, gender differences in hospital care is largely ignored and there is a scant research attention directed to this topic.

- Thus, our study aims to scrutinize all the important factors that influence gender disparity in hospital care/inpatient care in India.
- This is accomplished by analyzing the National Sample Survey (NSS) data– 60th, 71st and 75th round through a gender lens.
- The framework of our study is given as follows:



OBJECTIVES

The prime objective of this paper is to study the gender gap/differences in inpatient care in India and scrutinizing the factors pertaining to it. The other specific objectives are given below:

- To find out the hospitalization rates with respect to gender.
- To gauge the Statewise gender difference in hospitalization rate.
- To explore the different factors affecting hospitalization or access to health services.

DATA AND METHODS

DATA

The data used for this research is collected from three rounds of National Sample Surveys (NSS):

- (1) the 60th round (2004), titled as “*Morbidity, Health Care and the Condition of the Aged*”,
- (2) the 71st round (2014), titled as “*Key Indicators of Social Consumption in India (Health)*” and
- (3) the 75th round (2017-18) on “*Key Indicators on Social Consumption in India: Health*”.

The following table summarizes the sample design and sample size of the data collected for the three rounds of NSS:

ROUNDS OF NSS	SAMPLE DESIGN	FIRST STAGE UNITS (FSUs)		SECOND STAGE UNITS (SSUs)	
		RURAL (census villages)	URBAN (urban blocks)	RURAL (households)	URBAN (households)
60 th	Two-stage stratified	4,755	2,668	47,302	26,566
71 st	Two-stage stratified	4,577	3,720	36,480	29,452
75 th	Multi-stage stratified	8,077	6,181	64,552	49,271

METHOD

Data on hospitalization are obtained from the 60th , 71st and 75th round of NSS



Simple statistical calculation of rate and ratio of hospitalization of males and females are carried out and represented in the form of tables.



The rate of inpatient hospitalization of male and female are analyzed for different age groups, rural and urban region and the major states of India.



Gender disparity is explained with respect to the five most important factors: type of ailments, socio-economic groups, medical expenditure, average loss of household income, sources of financing hospitalization

LITERATURE REVIEW

- United Nations stressed upon the fact that both physical and psychological services should treat men and women equally and greater efforts are expected from the healthcare institutions to reduce gender gap [3].
- To address the issue of gender disparity in health, World Economic Forum introduced the framework “The Global Gender Gap Index” in 2006[4].

GLOBAL EVIDENCES IN GENDER DISPARITY IN HOSPITAL CARE

- Gender and health systems research studies done in low and middle income countries indicate that the policy makers, health practitioners and others focus on ‘one-size-fits-all’ health interventions ignoring gender [5].
- In high income countries like USA women receives a lower percentage of recommended treatments than men (for both Black and White patients with Chest Pain (CP) [6].
- In South Africa, the proportion of female adolescents seeking healthcare is more than that of the males of that age [7].
- The General Practitioners of Sweden reveals how gender differences play an important role in choice of medical treatment [8].

EVIDENCES OF GENDER BASED BARRIERS IN HOSPITAL ACARE IN INDIA

- In West Bengal, the access to all the healthcare services is greater for males when compared with females in both rural as well as urban sector [9].
- In Bihar, there is significant gender difference among the neonates, with girls receiving lesser care compared to the boys for neonatal illness and facility delivered post-natal wellness care. In contrast to this, it is observed that the rate of hospitalization of the males of the age group 15-49 years is significantly lower than that of the females of the same age [10,11].
- A study on the rural patients suffering from Cancer in a public tertiary health centre in Odisha reveals that Healthcare Expenditure (HCE) are remarkably lower for the female adults when compared with the males of the same age [12].
- There exists a gender gap in HCE for inpatient care where women face discrimination compared to men across all demographic and socio-economic groups [13].
- It is less likely for the women in comparison to the men to meet the hospitalization charges by selling of assets and contribution from the relatives for patients with poor financial condition. On the other hand, for the males, the chance of borrowing to pay for the healthcare services increases with the onset of adulthood but declines on ageing (60 years and above) [13].

RESULTS

‘Hospitalization is defined as the proportion of persons treated as in-patient per 1000 of population, excluding the cases of admission to the hospital due to childbirth’— according to the 60th , 71st and 75th round of NSS report .

The rate of hospitalization is given by the following formula:

$$\text{Rate of hospitalization} = \left[\frac{\text{Total number of cases of admission to hospital (currently dead or alive) in the last 365 days for any reason excluding cases of admission due to child birth}}{\text{otal estimated population including those who died in the last 365 days}} \right] \times 1000$$

where, cases = (number of people hospitalized) $\times$ (number of times they were hospitalized in the last 365 days)

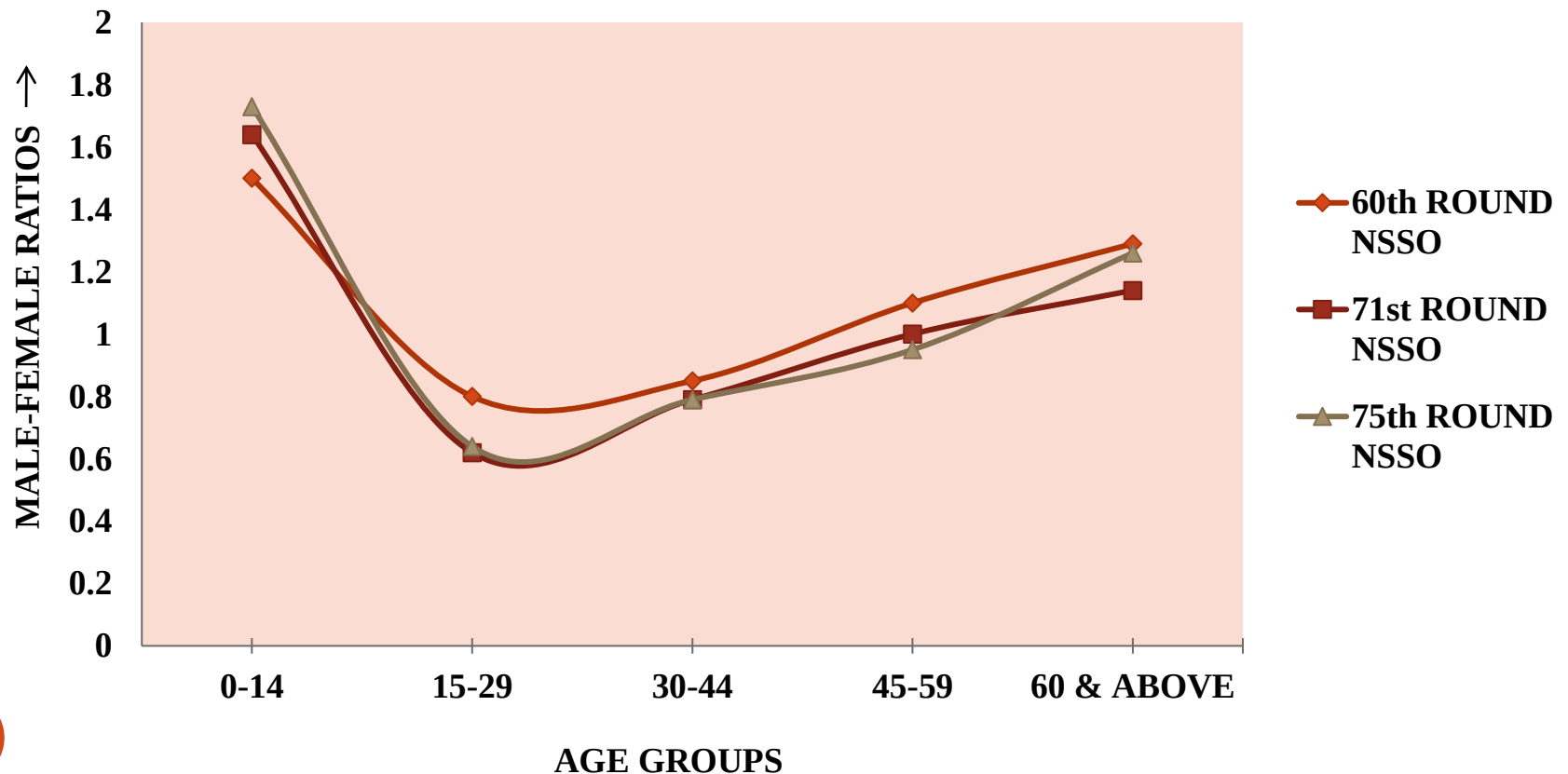
1. Hospitalization rate of male and female patients

- The analysis of rural-urban variation i.e., how the rate of hospitalization varies among the different age groups between male and female in rural and urban areas.
- **‘M-F ratio’** is calculated which gives the ratio of rate of hospitalization of males to that of the females.

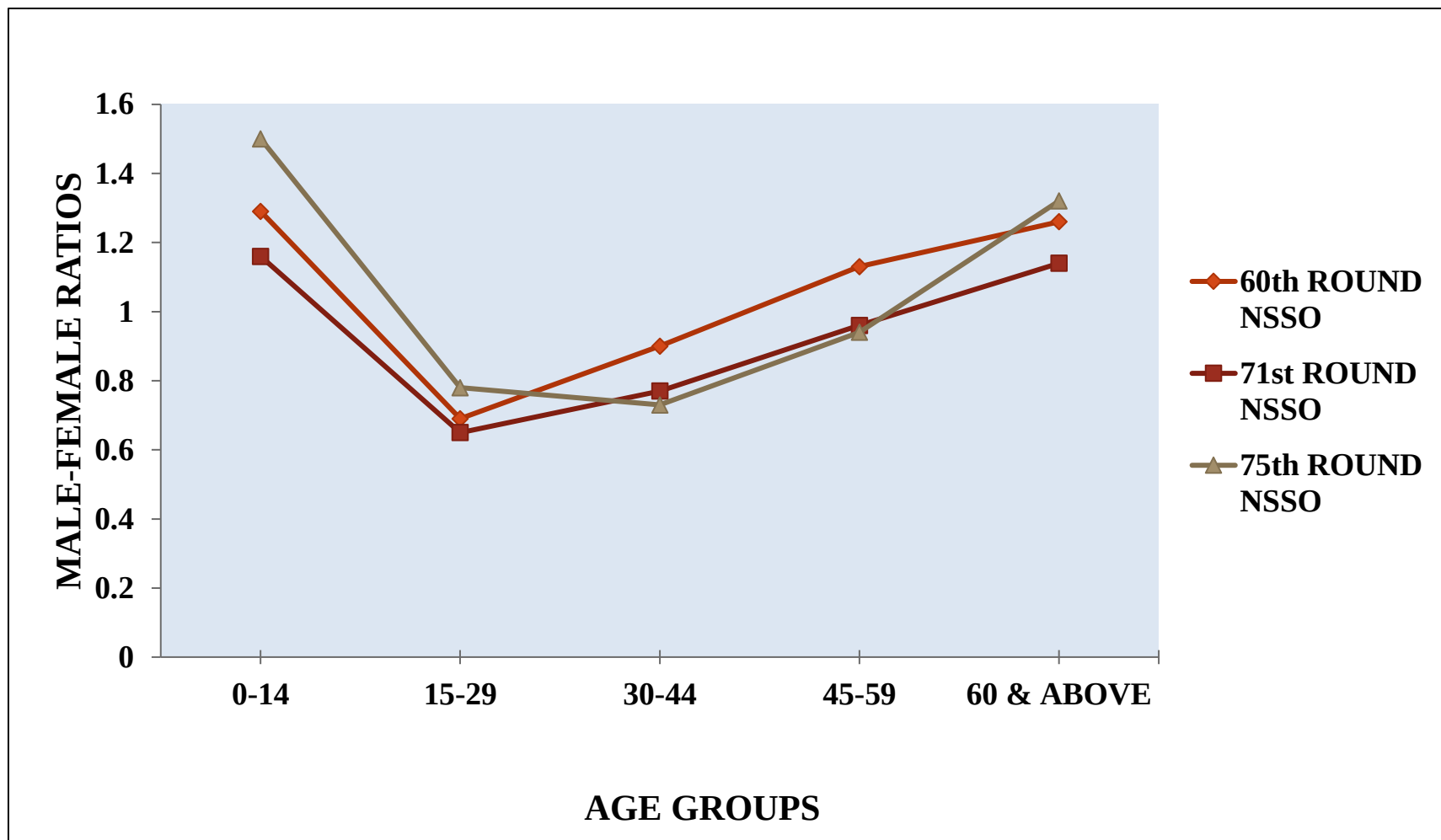
$$\text{M-F ratio} = \left(\frac{\text{Number of males hospitalized}}{\text{total estimated male population}} \right) \div \left(\frac{\text{Number of females hospitalized}}{\text{total estimated female population}} \right)$$

- Ideally the M-F ratio should be 1.0 — **negligible gender difference**
- Deviation from 1.0 on either side — **presence of gender gap**

Age-wise distribution of the M-F ratios for the 60th, 71st and the 75th round of National Sample Survey (NSS) taking the 'RURAL' population.



Age-wise distribution of the M-F ratios for the 60th, 71st and the 75th round of National Sample Survey (NSS) taking the 'URBAN' population



INTERESTING FINDINGS:

- All the age-groups show deviation from 1.0 leaving very few exceptions proving the presence of gender disparity in inpatient care.
- A similar trend for the age-groups 0-14 years as well as 60 years and above while a contrasting trend noted for the age group 15-49 years in deviation of M-F values — **What trend is being noted? Why is it so? How is it important?**

2. Hospitalization rate of male and female patients, by State

- We have analyzed the state-wise distribution of rate of hospitalization of the males and females in rural areas, urban areas and the total population of India.
- Also the state-wise distribution of the calculated 'M-F ratios' for the age group of "0-14" years and "60 years and above" are analyzed.

State-wise M-F ratios of “0-14” age group and “60 years & above” (75th round of NSS, 2017-18)

STATE	M-F RATIO (for 0-14 years)	M-F RATIO (for 60 & above years)
PUNJAB	1	0.93
HARYANA	2.4	1.2
RAJASTHAN	2	1.53
UTTAR PRADESH	2	1.18
BIHAR	2.5	1.32
JHARKHAND	1.8	1.71
MADHYA PRADESH	1.62	0.91
ANDHRA PRADESH	1.81	1.64
TAMIL NADU	1.07	1.72

IMPORTANT FINDINGS:

- For 0-14 years : **Bihar, Haryana, Rajasthan** and **UP** have **highest** deviation - signify females are disadvantaged compared to the males concerning hospitalization (inpatient care). Whereas, these states show comparatively lower gender gap for the age group of 60 years & above.

- For 60 years and above: **Jharkhand** and **Tamil Nadu** shows **highest** deviation – deviation on higher side- signify older females face discrimination in inpatient care compared to older males in these states.
- In **Jharkhand** gender disparity faced by females among the younger as well as the older population while in **Tamil Nadu**, the older females face more prominent gender discrimination compared to the younger females.
- **Punjab** and **Madhya Pradesh**: only states with deviation on **lower** side - indicating that the older males face discrimination in inpatient care rather than the older females.
- **Northern states** -Bihar, Haryana, Uttar Pradesh and Rajasthan show highest gender gap in the younger population in contrast to the older population.
- **Southern states** -Tamil Nadu and Andhra Pradesh have higher gender discrimination for the older population.

3. Gender gaps in hospitalization with respect to the 5 main factors

3.1. Type of ailments

Percentage break-up of hospitalization cases by the type of ailment for which the patient was hospitalized, separately for male and female in the rural and urban setting using data from the 75th round of *National Sample Survey (NSS)* was analyzed.

FINDINGS:

- Highest rate of hospitalization cases for both males and females is pertained to the cases of infections in both rural and urban areas.
- The next highest rate of hospitalization cases for males is due to injuries, cardiovascular diseases and psychiatric/neurological diseases for both rural as well as urban areas.
- On the other hand, for the females, the next highest category of ailment for hospitalization is found to be gastro-intestinal, cardio-vascular and genitourinary diseases for both rural and urban areas.

3.2. Socio-economic groups

Percentage break-up of hospitalization cases in India by quintile class of household expenditure, separately for each sector and gender (75th round of NSS, 2017-18)

Quintile class of household expenditure	Percentage of hospitalization cases			
	RURAL		URBAN	
	MALE	FEMALE	MALE	FEMALE
1 st	11.6	14.1	16.2	16.2
2 nd	14.3	13.6	17.7	20.2
3 rd	19.1	18.6	21.6	21.2
4 th	22.6	22.4	21.3	20.8
5 th	32.3	31.3	23.1	21.6
All	100.0	100.0	100.0	100.0

As we move from the lower quintiles to the highest quintile class in terms of household expenditure, the rate of hospitalization is lower for the females compared to the males in the rural areas as well as the urban areas - **discrimination faced by the females across both the regions irrespective of the economic background of the population.**

3.3. Medical Expenditure

Medical expenditure per episode of hospitalization (excluding childbirth), by sex (75th round of NSS, 2017-18).

GENDER	Rural	Urban	Total
Male	₹ 20,988	₹ 32,249	₹ 24,938
Female	₹ 14,815	₹ 24,074	₹ 18,400

Gender-wise breakup of medical expenditure per episode of hospitalization at different levels of average length of stay (ALOS), (75th round of NSS, 2017-18).

GENDER	Average Length of Stay (ALOS)		
	Less than 1 week	1-3 week	More than 3 weeks
Male	₹13,311	₹44,550	₹1,03,265
Female	₹10,698	₹38,170	₹75,335

3.4. Average loss of household income

Average loss of household income due to hospitalization implies that hospitalization of any person requires the person to be absent from work, leading to wage loss/salary loss which results in an average loss of source of income for the household.

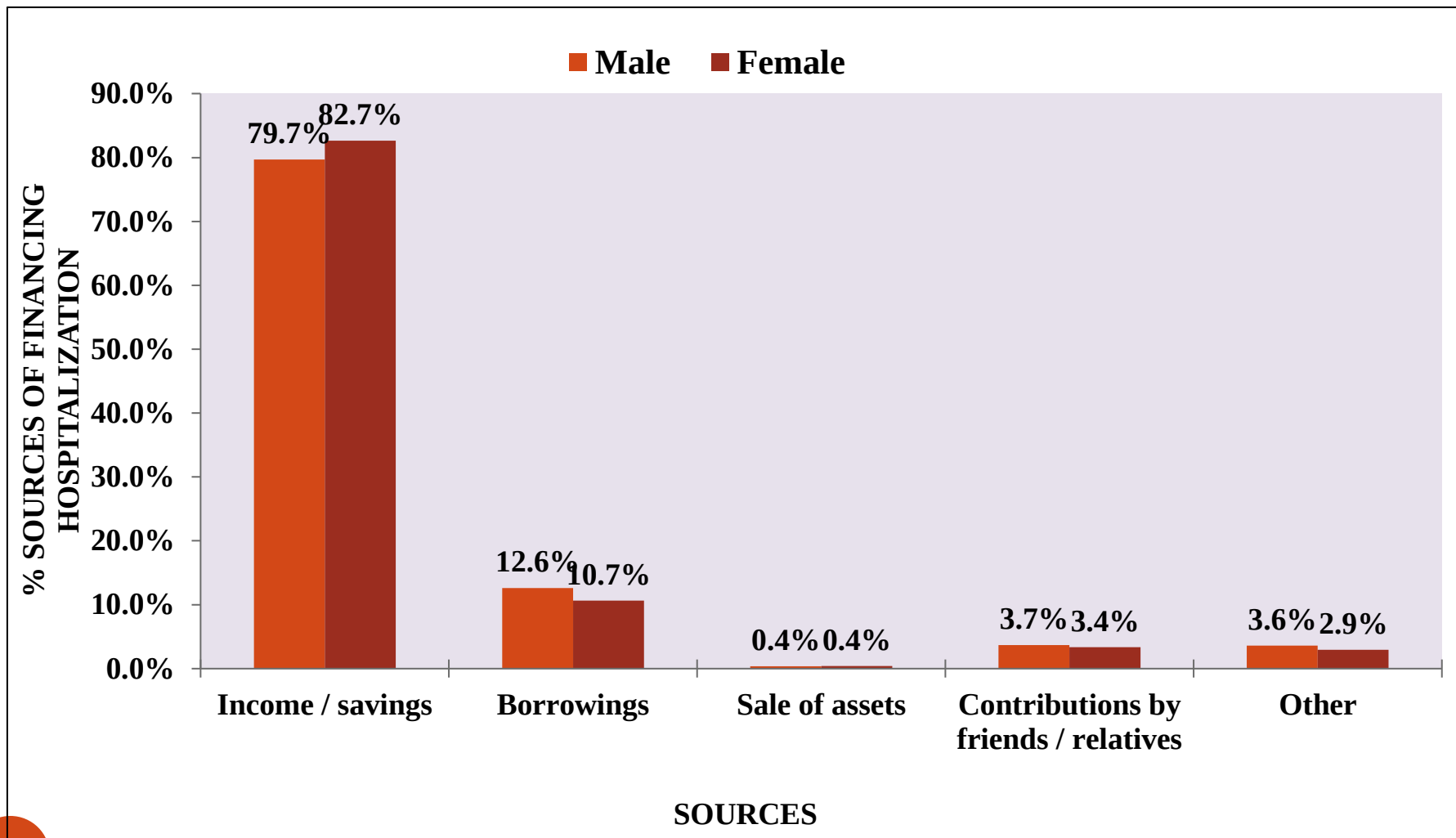
Average loss of household income due to hospitalization (excluding childbirth), by sex (75th round of NSS, 2017-18).

GENDER	Rural	Urban	Total
Male	₹2,732	₹3,395	₹2,955
Female	₹1,641	₹2,034	₹1,770

- Males are considered as the sole bearer of the household income as per the society and hence, on their hospitalization (meaning absence from their workplace) the source of income of the household gets blocked, which explains the higher average loss of household income.
- On the other hand, women are considered as the non earning member of the family and their role as care giver is dominant. The source of income would not be directly affected due to their hospitalization implying a lower average loss of household income.

3.5. Sources of financing hospitalization

Gender-wise distribution of the major sources of financing hospitalization (excluding childbirth), (75th round, 2017-18).



DISCUSSION

- **Strong presence of gender disparity in inpatient care**— for women belonging to 0-14 years and 60 years and above whereas for men between the age group 15-49 years.
- **Statewise gender gap scenario:** 0-14 year old girls are highly disadvantaged in the Northern states compared to the Southern states of India.
- It is alarming that the discrimination towards female is persistent in rural as well as urban areas irrespective of the socio-economic background of the population.
- Households prefer medical treatment of men over women.
- **Sources of financing hospitalization:** men face disparity in utilization of savings/income for financing hospitalization expenses. If the major source of financing hospital services comes from the contribution of friends or relatives, discrimination is faced by females.
- Further scope lies in finding out whether and to what extent the attitude and practice of the caregivers are responsible for this gender disparity in hospital care.

CONCLUSION

- There exist significant gender gaps in inpatient hospitalization for all the age groups- 0-14 years, 15-49 years and 60 years and above in India.
- Overall females are more disadvantaged than men.
- Though the country's one of the major health policies Universal Health Coverage (UHC), encompasses health financing and financial protection, covering health service for the entire population of India to maintain gender equality in health, our study highlights the fact that a lot is yet to be done in terms of bridging the gender gap in hospital care in health.
- Since women have a higher stake, they need to be the central reference point in devising and implementing health policies, without ignoring the health needs of men .
- There should be some improvement in the health programme designs in terms of gender specificity.
- Monitoring framework to keep a check on the gender issues.

REFERENCES

1. World Health Organization. (2011). *Women and health in the Western Pacific Region: remaining challenges and new opportunities*. Manila: WHO Regional Office for the Western Pacific, WHO, Geneva.
2. Boerma T, AbouZahr C, Evans D, Evans T. Monitoring intervention coverage in the context of universal health coverage. *PLoS Med*. 2014 Sep 22;11(9):e1001728.doi:10.1371/journal.pmed.1001728.PMID: 25243586; PMCID: PMC4171108
3. Chien IC, Hsu JH, Lin CH, Bih SH, Chou YJ, Chou P. Prevalence of diabetes in patients with schizophrenia in Taiwan: a population-based National Health Insurance study. *Schizophrenia research*. 2009 Jun 1;111(1-3):17-22.
4. World Economic Forum. (2018). The Global Gender Gap Report 2018. Retrieved 2018, from <https://www.weforum.org/reports/the-global-gender-gap-report-2018>
5. Morgan, R., Ayiasi, R.M., Barman, D. *et al*. Gendered health systems: evidence from low- and middle-income countries. *Health Res Policy Sys* **16**, 58 (2018). <https://doi.org/10.1186/s12961-018-0338-5>
6. Lewis JF, Zeger SL, Li X, Mann NC, Newgard CD, Haynes S, Wood SF, Dai M, Simon AE, McCarthy ML. Gender Differences in the Quality of EMS Care Nationwide for Chest Pain and Out-of-Hospital Cardiac Arrest. *Women's Health Issues*. 2019 Mar-Apr;29(2):116-124. doi: 10.1016/j.whi.2018.10.007. Epub 2018 Dec 10. PMID: 30545703.

7. Otworldbe K, Dietrich J, Laher F, Hornschuh S, Nkala B, Chimoyi L, Kaida A, Gray GE, Miller CL. Health-seeking behaviours by gender among adolescents in Soweto, South Africa. *Global health action*. 2015 Dec 1;8(1):25670.
8. Loikas, D., Karlsson, L., von Euler, M. *et al*. Does patient's sex influence treatment in primary care? Experiences and expressed knowledge among physicians – a qualitative study. *BMC Fam Pract* **16**, 137 (2015). <https://doi.org/10.1186/s12875-015-0351-5>
9. Bose M, Dutta A. Inequity in hospitalization care: a study on utilization of healthcare services in West Bengal, India. *Int J Health Policy Manag*. 2014 Dec 22;4(1):29-38. doi:10.15171/ijhpm.2015.05. PMID: 25584350; PMCID: PMC4289034.
10. Vilms RJ, McDougal L, Atmavilas Y, Hay K, Triplett DP, Silverman J, Raj A. Gender inequities in curative and preventive health care use among infants in Bihar, India. *J Glob Health*. 2017 Dec;7(2):020402. doi: 10.7189/jogh.07.020402. PMID: 28959437; PMCID: PMC5592115.
11. Baker P, Dworkin S, Tong S, Banks I, Shand T, Yamwn G. The men's health gap:men must be included in the global health agenda. *Bulletin of the World Health Organization* 2014;92:618-620. doi:<http://dx.doi.org/10.2471/BLT.13.132795>
12. Batra A, Gupta I, Mukhopadhyay A. Gender Differences in Health Expenditure of Rural Cancer Patients: Evidence from a Public Tertiary Care Facility in India, September 2018; 16(3):615-629. DOI: 10.1007/s40953-017-0113-4.
13. Saikia N, Moradhvaj, Bora JK. Gender Difference in Health-Care 13.Expenditure: Evidence from India Human Development Survey. *PLoS One*. 2016 Jul 8;11(7):e0158332. doi: 10.1371/journal.pone.0158332. PMID: 27391322; PMCID: PMC4938214.

PART-2

ONLINE COURSE ON “ESSENTIALS OF GLOBAL HEALTH”

NAME OF COURSE

‘ESSENTIALS OF GLOBAL HEALTH’ in online learning platform COURSERA

COURSE DESCRIPTION

- The course is offered by Yale University on the online learning platform ‘Coursera’. It is a 56 hours course with 6 modules divided within a timeframe of 10 weeks.
- Comprehensive introduction to global health.
- Much of the course focuses on five questions:
 - (1) What do people get sick, disabled and die from?
 - (2) Why do they suffer from these conditions?
 - (3) Which people are most affected?
 - (4) Why should we care about such concerns?
 - (5) What can be done to address key health issues, hopefully at least cost, as fast as possible, and in sustainable ways?

OBJECTIVES OF THE COURSE

- Articulate key public health concepts related to global health.
- Analyze the key issues in global health from a number of perspectives.
- Discuss with confidence the burden of disease in various regions of the world; how it varies by sex, age, and location; key risk factors for this burden; and how the disease burden can be addressed in cost-effective ways.
- Assess key health disparities, especially as they relate to the health of low-income and marginalized people in low- and middle-income countries.
- Outline the key actors and organizations in global health and the manner in which they cooperate to address critical global health concerns.
- Review key global health challenges that are likely to arise in the coming decades.

COURSE CONTENT

The course mainly focuses on three areas as given below:

- (1) Health of poor people in poor countries,
- (2) Issues in public health that transcend national boundaries and,
- (3) Critical public health issues that require global cooperation.

The course has been divided into six thematic areas taught over a period of 10 weeks:-

Module-1: Introduction to global health;

Module-2: The state of world's health i.e., the burden of diseases;

Module-3: Health system and value for money in health;

Module-4: Cross-cutting themes in global health;

Module-5: Critical causes of illness and death and;

Module-6: Looking into the future.

LEARNING METHODOLOGY USED IN **THE COURSE**

- Video lectures
- Power point presentation
- Reading materials
- Assignments after completion of each module.

KEY LEARNINGS FROM THE COURSE

MODULE-1: INTRODUCTION TO GLOBAL HEALTH

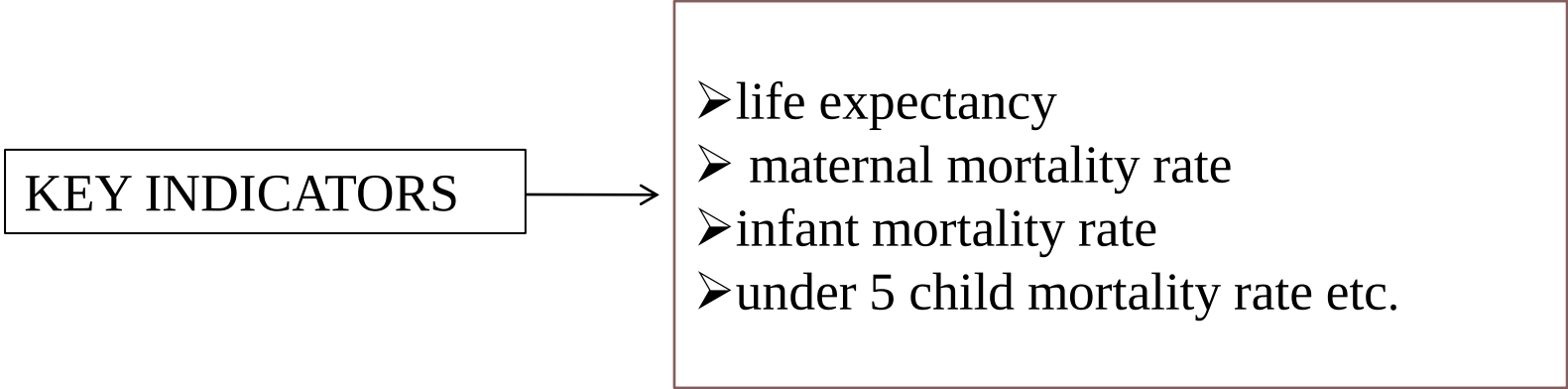
- Global health definition
- Key perspectives of global health: this course elaborates about the determinants of health and the social determinants of health.
- Who are the **key actors** in the global health arena ? What role do they play?



MODULE-2: BURDEN OF DISEASE

- **The state of world's health:** key gaps that remain to improving human health and the key indicators for measuring progress in global health .

KEY INDICATORS

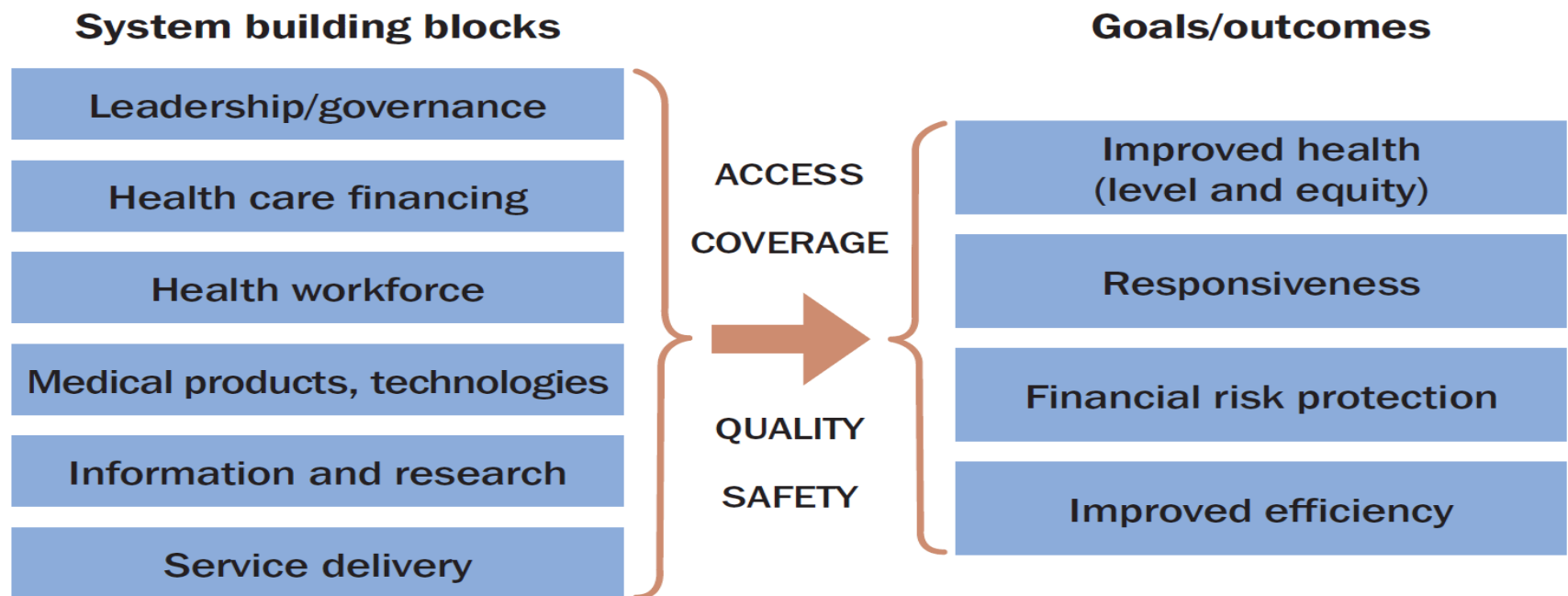
- 
- life expectancy
 - maternal mortality rate
 - infant mortality rate
 - under 5 child mortality rate etc.

- Demography and global health
- What do people get sick, disabled and die from? — **DALY**

MODULE-3: HEALTH SYSTEMS AND VALUE FOR MONEY IN HEALTH

- Learnt about the value for money when investing in key global health efforts.
- All governments should set priorities and one tool used to set those priorities is called cost effectiveness analysis. **What is cost effectiveness analysis?**
- Health Systems Framework:

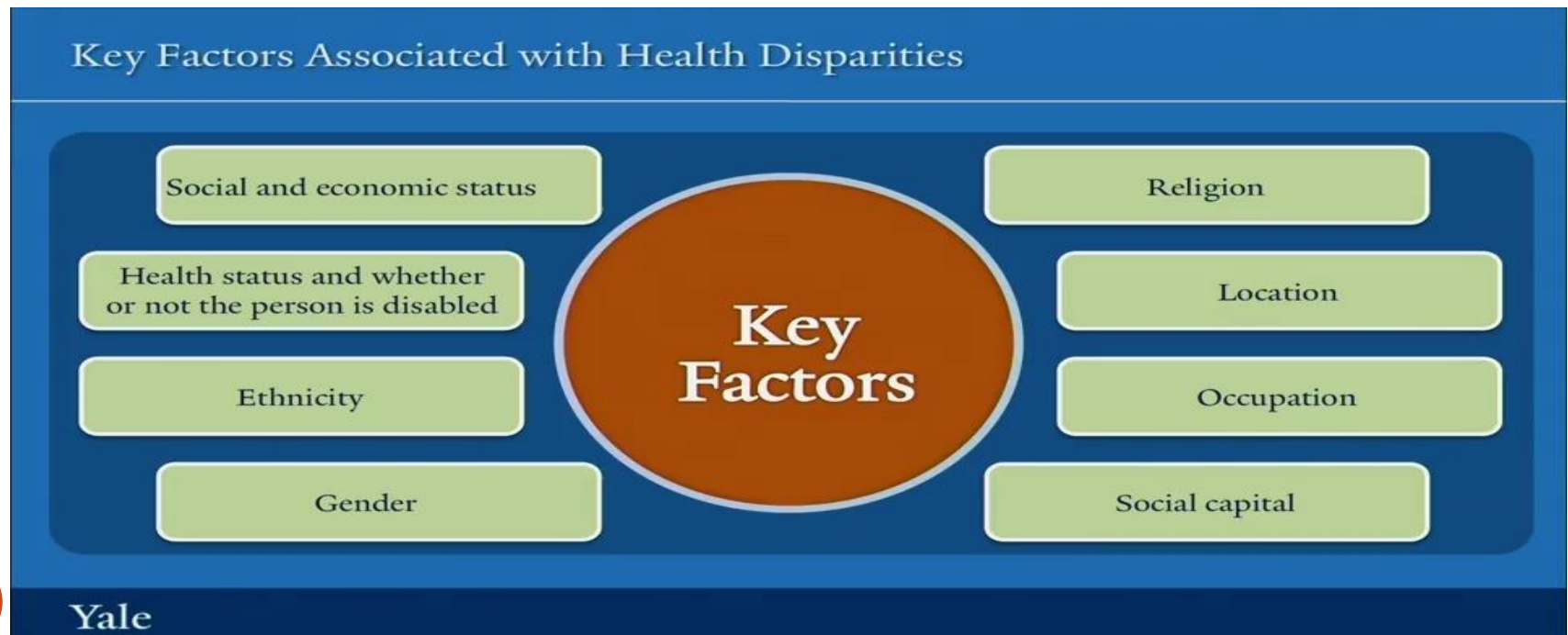
Figure 1. The WHO Health Systems Framework¹



¹ World Health Organization (2013). Universal eye health: a global action plan 2014-2019

MODULE-4: CROSS CUTTING THEMES IN GLOBAL HEALTH

- Relationship between environment and health, complex humanitarian emergencies and natural disasters and health, and nutrition and health.
- Health of women, children and adolescents.
- Health disparities : differences in health status that relate to social disadvantage.
- **What are the factors associated with health disparities ?**



MODULE-5: CRITICAL CAUSES OF ILLNESS AND DEATH

- Emerging and re-emerging infectious diseases and anti-microbial resistance
- Key issues in communicable diseases—

HIV

**Tuberculosis
(TB)**

Malaria

**Neglected Tropical
Diseases**

- Key risk factors associated with non-communicable diseases—

**Cardiovascular
diseases**

Cancer

Diabetes

- Key issues related to—
Tobacco and Alcohol
Mental health
Injuries

MODULE-6: LOOKING INTO THE FUTURE

- **Intersectoral Approaches to Global Health:** to address broader determinants of health and to improve the effectiveness of health programs.

- **Science and Technology in Global Health:**

According to the World Health Organization (WHO), health technologies have a critical role in the prevention, diagnosis and treatment of illness and disease. Yet, access to health technology remains a challenge particularly in developing countries.

- The Global Initiative on Health Technologies (GIHT) aims to help make available the benefits of health technologies, particularly to communities in resource-limited settings, in order to effectively control important health problems.

- **What are the key challenges of future ?**

Thank you