



Health Communication
BA (JMC) 108
UNIT 1
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Syllabus- Unit 1

Introduction to Public Health

1. Public Health: Definition & Concept
2. Health Awareness and Role and Importance of Yoga
3. Major Public Health and Lifestyle Issues in India
4. Public Health Care System in India: Issues & Problems in Rural and Urban India
5. India as a Medical Tourism Destination

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Public Health: Definition & Concept

- What is public health ?
- How is different from clinical medicine?
- Who does public health?
- How is it done?
- Public health refers to "the science and art of preventing disease, prolonging life and promoting human health through organised efforts and informed choices of society, organisations, public and private, communities and individuals" (Winslow, 1920).
- Improving health of populations , making people healthy, saving lives.

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Public Health: Definition & Concept

The Mission of Public Health



INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

"Fulfilling society's interest in assuring conditions in which people can be healthy."
—Institute of Medicine



World Health Organization

"Public health aims to provide maximum benefit for the largest number of people."
—World Health Organization

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Public Health: Definition & Concept

Public Health Key Terms

clinical care: prevention, treatment, and management of illness and the preservation of mental and physical well-being through the services offered by medical and allied health professions; also known as *health care*.

determinant: factor that contributes to the generation of a trait.

epidemic or outbreak: occurrence in a community or region of cases of an illness, specific health-related behavior, or other health-related event clearly in excess of normal expectancy. Both terms are used interchangeably; however, *epidemic* usually refers to a larger geographic distribution of illness or health-related events.


health outcome: result of a medical condition that directly affects the length or quality of a person's life.

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Public Health: Definition & Concept


- As defined by World Health Organization (WHO), health is a **"State of complete physical, mental, and social well-being, and not merely the absence of disease."**
- 'Health' means differently to different people.
- Example 1.** If someone says "I was worried about my son's health when he went for mountain climbing"
- Example 2.** "With all these deadlines, presentations and working weekends, I wonder what the effect will be on her health," most likely the word "health" refers more to mental health than physical health (although the two are often linked).
- Health is not only categorized into **physical** and **mental**, but **structural** and **chemical** health also.

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 **Public Health: Definition & Concept**

- Physical health** means a good body health, which is healthy because of regular physical activity (exercise), good nutrition, and adequate rest.
 - Structural health:** Means that the structures in the body are performing the functions they were made for, properly, Eg. BMI, pulse rate.
 - Chemical health:** It means that the chemicals in the body are correct, that **the tissues contain right balance of nutrients**, and that there are no toxic chemicals. Eg. Smoking allows swallowing of chemicals; some chemicals destroy tissues, some effect genetic materials to cause cancer.
- Mental health** refers to people's cognitive (connected with thinking or conscious mental processes) and emotional well-being.


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 **Public Health: Definition & Concept**

Public Health

- Word 'public health'-one of the most commonly used word by both the world and national leaders, medical practitioners, in news stories and bulletins and even by the common man in year 2020 since the COVID 19 pandemic.
- The corona virus has once again put the issue of importance of strong **public health infrastructure** for all nations
- According to WHO**, Public Health is defined as "the art and science of **preventing disease, prolonging life and promoting health** through the organized efforts of society"
- American Public Health Association (APHA)** states that the public health is **the practice of preventing disease and promoting good health within groups of people**, from small communities to entire countries.

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 **Public Health: Definition & Concept**

- According to University of Pittsburg**, Public health is defined as **the science of protecting the safety and improving the health of communities** through education, policy making and research for disease and injury prevention.
- Medicine and nursing are vital for helping and supporting people when they fall ill, but work in public health contributes to reducing the causes of ill-health and improving people's health and wellbeing.
- It is done in three main domains: Health promotion, prevention of ill health and health protection.

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Public Health: Definition & Concept




Sanitation and Environmental Health

<p>500 BCE</p>  <p>Greeks and Romans practice community sanitation measures</p>	<p>1840s</p>  <p>The Public Health Act of 1848 was established in the United Kingdom</p>	<p>1970</p>  <p>The Environmental Protection Agency was founded</p>
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Public Health: Definition & Concept

Pandemics

<p>Influenza</p>  <p>500 million infected worldwide in 1918</p>	<p>Polio</p>  <p>Vaccine introduced in 1955; eradication initiative launched in 1988</p>	<p>HIV</p>  <p>34 million living with HIV worldwide; 20% decline in new infections since 2001</p>
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Public Health: Definition & Concept

A Public Health Approach

<p>↓</p> <p>Surveillance</p> <p>What is the problem?</p>	<p>↓</p> <p>Risk Factor Identification</p> <p>What is the cause?</p>	<p>↓</p> <p>Intervention Evaluation</p> <p>What works?</p>	<p>↓</p> <p>Implementation</p> <p>How do you do it?</p>
<p>Problem</p>		<p>Response</p>	

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Public Health: Definition & Concept

Public Health Core Sciences

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Public Health: Definition & Concept

Cholera — A Public Health Approach

Cholera, a fatal intestinal disease, was rampant during the early 1800s in London, causing death to tens of thousands of people in the area. Cholera was commonly thought to be caused by bad air from rotting organic matter.

Photo: iStockphoto.com/Chris and K. Taylor, Dartmouth Medical School

John Snow, Physician

John Snow is best known for his work tracing the source of the cholera outbreak and is considered the father of modern epidemiology.

Photo: London School of Hygiene and Tropical Medicine

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Public Health: Definition & Concept

Implementation — How Do You Do It?

John Snow's research convinced the British government that the source of cholera was water contaminated with sewage

Photo: Justin Cormack

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Public Health: Definition & Concept

Three Core Functions of Public Health

Assessment	→ Systematically collect, analyze, and make available information on healthy communities
Policy Development	→ Promote the use of a scientific knowledge base in policy and decision making
Assurance	→ Ensure provision of services to those in need

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Public Health: Definition & Concept

Ten Essential Public Health Services


1. Monitor Health
2. Diagnose and Investigate
3. Inform, Educate, Empower
4. Mobilize Community Partnership
5. Develop Policies
6. Enforce Laws
7. Link to/Provide Care
8. Assure a Competent Workforce
9. Evaluate
10. Research

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Public Health: Definition & Concept


Partners in the Public Health System

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Public Health: Definition & Concept

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3 P's of Public Health

1. Prevent disease:

- Disease prevention focuses on **helping people avoid contracting diseases**, both for individuals and communities.
- **In communities**, it is mostly done by providing clean living conditions & promoting education so that people understand ways in which they can get sick.
- Ex. sewer systems, water purification plants, health codes, and the establishment of sterile hospital facilities prevent diseases from spreading.
- **For individuals**, disease prevention can include the use of vaccination and prophylactic medications, and the identification of risk factors that could make someone more prone to contracting an illness.
- **General wellness** may also be promoted, as healthy individuals with strong bodies are less likely to contract disease.


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3 P's of Public Health

- There are three levels of prevention, i.e., primary prevention, secondary prevention and tertiary prevention.
- The primary prevention is intended to prevent disease among the healthy people;
- secondary prevention is attempted towards those in whom the disease has already developed;
- and tertiary to reduce the prevalence of chronic disability consequent to disease.

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3 P's of Public Health

2. Health Promotion:

- It is the process of **enabling** people to increase control over, and to **improve, their health**.
- It moves beyond a focus on individual behavior towards a wide range of social and environmental interventions.
- It is the development of individual, group, institutional, community and systemic strategies to improve health knowledge, attitudes, skills and behavior.


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Importance of health promotion

- It improves health status of individuals, families, communities, states, and the nation.
- It enhances the quality of life for all people.
- It reduces premature deaths

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3 P's of Public Health

3. Protection):

- It means **extended life**. And life expectancy is directly related to public health.
- Public health historians say that the majority of the life expectancy increase during the last 200 years resulted from **control of infectious diseases, safer foods, better sanitary conditions, and other nonmedical social improvements**.


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3 P's of Public Health

- This is the **best time to join in the effort** to promote and protect population's health. From **growing rates of obesity to the advent of new diseases**, public health issues appear regularly in the media.
- Public health focuses on the entire spectrum of health and wellbeing, not only the eradication of particular diseases.
- Many activities are targeted at populations such as **health campaigns**.
- It also includes personal services, to individuals like vaccinations, behavioral counseling, or health advice.


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Public Health: Definition & Concept

- Public health plays an important role in disease prevention efforts in both the developing world as well as in developed countries, through local health systems and non-governmental organizations.
- The focus of a public health intervention is to improve health and quality of life through prevention, treatment and management of diseases, injuries and other physical and mental health conditions through surveillance of cases and the promotion of healthy behaviors, communities and environments.

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Public Health: Definition & Concept

- The World Health Organization (WHO) is the international agency that coordinates and acts on global public health issues. Most countries have their own government public health agencies, sometimes known as ministries of health, to respond to domestic health issues.
- The public health system in **India** is managed by the Ministry of Health & Family Welfare of the government of India with state-owned health care facilities.

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Public Health: Definition & Concept

- The WHO Expert Committee on Public Health Administration, adapting Winslow's earlier definition has defined " the science and art of preventing disease, prolonging life, and promoting health and efficiency through organised community efforts for the sanitation of the environment, the control of communicable infections, the education of the individual in personal hygiene, the organisation of medical and nursing services for early diagnosis and preventive treatment of disease, and the development of social machinery to ensure for every individual a standard of living adequate for the maintenance of health, so organising these benefits as to enable every citizen to realise his birthright of health and longevity".

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Public Health: Definition & Concept


- According to Park (2015), there are four distinct phases of public health:**
- a) Disease Control Phase (1880-1920)**
- During 19th century, public health was largely focused on sanitary legislation and sanitary reforms aimed at the control of man's physical environment like water supply, sewage disposal, etc.
- Thus it was not focused on controlling any specific disease; however, such measures had improved the health conditions of people and controlled infectious diseases.

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Public Health: Definition & Concept

- What is endemic?** Any epidemic reaches the state of endemic when there is no possibility of it being completely eradicated. According to WHO, in this situation people have to live with that infection forever. However, in this phase the risk of infection for all people is less.
- What is pandemic?** Pandemic means such devastation caused by any disease that it engulfs different countries of the world.
- What is epidemic?** If a serious disease spreads only to a certain area, then that disease is called epidemic. In this too, the number of patients can increase rapidly and the number of deaths too, but in different small parts of the world.


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Public Health: Definition & Concept

- **b) Health Promotional Phase (1920-1960)-**
- A new concept of 'health promotion' began to take shape at the beginning of 20th century.
- During the previous phase, individuals were neglected, it was realised that the State had a direct responsibility for the health of an individual.
- Thus, health promotion of individual was added to public health. It was further initiated as personal health services such as mother and child health services, school health services, industrial health services, mental health and rehabilitation services.


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Public Health: Definition & Concept

- Later public health departments began expanding their programmes towards health promotional activities.
- They promoted a provision of "basic health services" through the medium of primary health centres and sub-centres for rural and urban areas.

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Public Health: Definition & Concept

- The Bhore Committee, 1946 of India recommended the establishment of health centres for providing integrated curative and preventive services.
- Later "Community Development Programme" was also introduced to promote village development through the active participation of the whole community and on the initiative of the community.
- But it failed to reach out to the people due to inadequate resources and limited time.

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Public Health: Definition & Concept

- **C) Social Engineering Phase (1960-1980)-**
- Due to advances in practices of public health, the pattern of disease began to change both in developing and developed countries as many of the acute illnesses have been brought under control.
- But new health problems in the form of chronic diseases such as cardiovascular diseases, cancer, diabetes, etc., began. The concept of 'risk factors' as determinants of these diseases came into existence that gave a chronic burden on the society.

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Public Health: Definition & Concept

- **d) Health for All Phase (1981-2000AD)**
- In this phase, it is seen that most people in the developed countries and elite of the developing countries are enjoying all the health determinants such as education, adequate income, nutrition, safe drinking water, sanitation and comprehensive health care.
- Unfortunately, only a small percentage of the population in developing countries had access to health services of any kind.

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Public Health: Definition & Concept

- Thus, there was a global awakening that the health gap between rich and poor within countries and between countries should be narrowed and ultimately eliminated.
- So, the neglected world's population too has an equal claim to healthcare, to protect themselves from the killer diseases of childhood, to primary health care for mothers and children, etc.

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Public Health: Definition & Concept

Other Partners in Public Health

- Media**
 - Vehicle for public discourse
 - Health education and promotion
 - Health communication
 - Social media as catalyst
- Employers and Businesses**
 - Employer-sponsored health insurance programs
 - Wellness initiatives and benefits
 - Healthy workplaces and communities
- Government Agencies**
 - City planning
 - Education
 - Health in all policies
- Academia**
 - Education
 - Training
 - Research
 - Public Service

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Health Awareness

- Health Awareness means understanding of a situation or subject at the present time, based on information or experience. Raising public awareness involves creating a specific messaging campaign about a particular issue.
- Awareness creation is important to change the knowledge and attitude of a community towards any particular issue.
- Awareness creation can be done through various awareness campaigns including events, poster campaigns, websites, documentaries, newspaper articles, radio, TV, or theatre programmes.

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Health Awareness

- **APPROACHES AND STEPS FOR AWARENESS CAMPAIGN**
- Common approaches and techniques for raising public awareness include:
 - Personal communication with community members through public meetings, presentations, workshops and informal social events
 - Structured education and training programmes in schools, colleges and universities
 - Exhibitions and displays
 - Printed materials - like brochures, billboards, cartoons, comics, pamphlets, posters, and resource books

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Health Awareness

- Audiovisual resources - for example, pre-recorded video CDs Interviews and articles in newspapers, magazines and e-publications Interviews and news items on radio and television Social awareness through celebrity endorsement-
- for example, actress Vidya Balan became the brand ambassador of sanitation campaign of the government of India and would promote the construction and use of toilet in rural India.

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Health Awareness


- Where oral traditions dominate, performances of specially composed stories, songs, dances, plays and poems, eg., Kerala police dance video to encourage hand washing during Corona times, 2020.
- <https://www.youtube.com/watch?v=Nun2xJdY68E>

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Health Awareness

- Go through some of the awareness campaigns endorsed by an Indian celebrity and write about it. Do you think people respond more to campaigns endorsed by celebrities?

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Health Awareness

- Steps for Successful Awareness Campaign

1) Set objectives- Develop a comprehensive campaign plan, including the clearly defined short-term, long-term and SMART = specific, measurable, achievable, realistic, time bound objectives. This would help to guarantee to establish initial realistic goals and to develop each promotional activity in a well paced manner that would work towards the achievement of the objectives.


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Health Awareness

- 2) Target Groups – Identifying target groups will go a long way in helping to select the most relevant approach to reach and influence their behavior.


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Health Awareness

- 3) Identify tools and channels to use campaign– Identify which tools should be used to spread the messages should be identified, like mass media, social media, print media.


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Health Awareness

- Identify partners and networks - Campaign developers are advised to pick suitable partners with well established sectoral networks within their field of competence so that they could act as an efficient multiplier and complement each other when implementing campaign activities.


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Health Awareness

- **Identify sources of funding** - In this step the importance of identification of multiple sources of funding and pooling of resources to reduce costs is emphasised.
- The latter one optimizes campaign and programme outcomes in terms of promotion and awareness raising of each other, reduced costs, avoiding the repetition of efforts and reducing the proliferation of disjointed initiatives with limited potential of impact.
- While multiple funding sources strengthen financial sustainability of the campaign. Also, sponsors usually want to highlight their participation in the campaign. In this way greater promotion of the activity may be achieved.

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Health Awareness

- Develop campaign messages- Awareness raising campaigns should clearly communicate the message or messages.
- Promote Campaign - campaign developers should focus on measuring all the outcomes and collect evidence on what activities have impact on adults and when. During the campaign its promoters should also fully use internal networks, contacts and informal channels of communication as it can be useful in promoting the debate and attention to specific issues.
- Monitor and evaluate campaign - Campaign policy developers are advised to monitor national research. This would help to identify the existing needs of the target groups and, consequently, develop relevant activities.

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Role and Importance of Yoga

- Yoga is a **group of physical, mental, and spiritual practices or disciplines** which originated in ancient India.
- It is an **ancient pre vedic tradition** and the practice goes back to the Indus valley civilization around 3000 BCE.
- The word "yoga" comes from the Sanskrit root **yuj**, which means "to join".
- The science of Yoga imbibes the complete essence of the **Way of Life**.
- Yoga is a **practical aid, not a religion**.
- It is an ancient art based on a **harmonizing system of development for the body, mind, and spirit**.
- The continued practice of yoga will lead you to a **sense of peace and well-being**, and also a feeling of being at one with their environment.

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Benefits of Yoga


- Practicing yoga helps in **controlling an individual's mind, body and soul**. It brings together **physical and mental disciplines** to achieve **peaceful body and mind**.
- It also helps to **manage stress, anxiety and teaches you the art of relaxing**.
- It also helps in **increasing flexibility, muscle strength and body tone**. Also improves **respiration, energy and vitality**.
- Practicing yoga might seem like just stretching, but it can do much more for body from the way one feels, looks and moves.
(<https://www.medindia.net/yoga-lifestyle/yoga-importance.htm>)

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Benefits of Yoga

Yoga - Infographic


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 **Benefits of Yoga**

Yogic exercises recharge the body with cosmic energy and facilitates:

- Attainment of perfect equilibrium and harmony
- Self-healing
- Removal of negative blocks from the mind and toxins from the body
- Increase in self awareness
- Greater attention, focus and concentration, especially important for children
- Stress and tension reduction in the physical body by activating the nervous system

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 **Role of Yoga in Health and Fitness**


Thus, yoga bestows upon every aspirant the powers to control body and mind. Yoga plays an important role broadly in three areas:

- Physical
- Psychological
- Spiritual

1. Physical


- **Flexibility**- helps the body to become more flexible, bringing greater range of motion to muscles and joints, flexibility in hamstrings, back, shoulders, and hips.
- **Strength**- support the weight of own body in new ways, including balancing on one leg (such as in Tree Pose) or supporting with arms increases strength.
- **Disease Eliminator**- power to prevent and eliminate various chronic health conditions.

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 **Role of Yoga in Health and Fitness**

- **Enhanced circulation**:- yoga improves your blood circulation. This means better transportation of oxygen and nutrients throughout the body. Improved blood flow also indicates healthier organs and glowing skin.
- **Improve posture**:- yoga teaches how to control and how to balance. With regular practice, your body will automatically assume the right stance.
- **Uplifts your mood**:- Practicing yoga on regular basis uplifts your mood instantly as it leaves your body with refreshing energy.
- Increased natural energy level
- **Stronger immune system**
- **Pulse and respiratory rate decreases**
- **Cardio vascular efficiency increases**
- **Respiratory efficiency increases**
- **Cholesterol decreases**
- **Cleaning and regulating of all the body system**


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2. Psychological

- **Mental Calmness**-Yoga asana practice is intensely physical. Concentrating so intently on what body is doing has the effect of bringing calmness to the mind.
- **Stress Reduction**-provides a much-needed break from stressors, as well as helping put things into perspective. Yoga controls breathing, which reduces anxiety. It also clears all the negative feelings and thoughts from mind leading to reduction of depression.


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Role of Yoga in Health and Fitness

- **Concentration**- increases concentration and motivation in quick time.
- **Purpose of Life**- simple exercise method that has numerous benefits, psychologically and physically apart from allowing purpose of life and secrets to healthy longer life.
- **Memory**-stimulates better blood circulation especially to the brain, which reduces stress and improves concentration leading to better memory.
- **Body Awareness**- gives an increased awareness of own body. It increase level of comfort in own body. This can lead to improved posture and greater self-confidence.

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Health and Fitness

3. Spiritual

- **Inner Connection**- helps to create a bond, a relation between body and mind apart from all other benefits.
- **Inner Peace**- method known for better and quicker inner peace which increases and improves human capability in making effective decisions even at serious circumstances.
- **Surya Namaskar** is a complete body exercise, keeps all internal organs, stomach, intestines, pancreas, spleen, heart and lungs, healthy and strong. Also muscles of external body parts, chest, shoulders, hands, thighs, legs becomes healthy and strong.
- It makes spine and waist flexible by removing disorders. It improves blood circulation in the body which removes skin diseases.


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Yoga Promoted by the PM

- In 2014, Indian Prime Minister Narendra Modi suggested United Nations to celebrate June 21 as the International Yoga Day as it is the summer solstice; the longest day of the year in the Northern Hemisphere.
- PM Modi in his address in UN General Assembly, on September 2014 said that "Yoga is an invaluable gift of India's ancient tradition. This tradition is 5000 years old. It embodies unity of mind and body; thought and action; restraint and fulfillment; harmony between man and nature; a holistic approach to health and well-being. It is not about exercise but to discover the sense of oneness with yourself, the world and the nature. By changing our lifestyle and creating consciousness, it can help in well being . Let us work towards adopting an International Yoga Day." — Narendra Modi, UN General Assembly, September 2014.


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International Yoga Day

- International Yoga Day is celebrated on June 21 across the world. It was observed for the first time in 2015.
- The United Nations General Assembly proposed on December 11 and established June 21 as "International Yoga Day."
- 21 June was chosen as it is longest day to the other days.

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Major Public Health and Lifestyle Issues in India

- In health sector, India has covered several big steps in the past decades. The life expectancy is 69 years and 4 months for a child born in 2021. Many diseases, such as polio, guinea worm disease, yaws, and tetanus, have been eradicated.

Public health issues

- Infectious diseases** are disorders caused by organisms like bacteria, viruses, fungi or parasites. **These are communicable diseases** and are **contagious** when spread through direct, bodily contact with an infected person, their discharges, or an object or surface they've contaminated.
- Non-communicable diseases** (NCDs) are medical conditions or **diseases** that are not caused by infectious agents. These are chronic **diseases** of long duration, and generally slow progression and are the result of a combination of genetic, physiological, environmental and behavioral factors, linked with lifestyle changes.

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Major Public Health and Lifestyle Issues in India

- It is also emergence of new pathogens causing epidemics and pandemics
- A public health problem, is a medical issue that affects a significant portion of a specific population.
- Some of the issues of concern have been-Covid 19 pandemic, **Cancer**, Infertility, Congenital, abnormalities, Cataract, Hearing loss, **Diabetes**, **Heart disease**, Infectious diseases, Anemia, Tuberculosis

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Major Public Health and Lifestyle Issues in India

Lifestyle diseases

- People are predisposed to many diseases based on their way of living and occupational habits.
- They are preventable, and can be lowered with changes in diet, lifestyle, and environment.
- Lifestyle diseases characterize those diseases whose occurrence is primarily based on daily habits of people and are a result of an inappropriate relationship of people with their environment.
- The onset of these lifestyle diseases is insidious, they take years to develop, and once encountered are not easy to cure.


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- Lifestyle diseases are defined as those health problems **that react to changes in lifestyle**. All lifestyle risk factors have one common property: they make breathing heavier and body O2 low.
- The World health Organization (WHO) has identified India as one of the nations that is going to have most of the lifestyle disorders in the near future.

Causes of Lifestyle diseases

- Unhealthy eating habits
- Lack of physical activity
- Stress and anxiety
- Poor sleep
- Smoking and alcoholism



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Top lifestyle diseases and their risk factors

1. Type 2 Diabetes

- India has largest number of people suffering from Diabetes At 40.9 million people.
- Causes:** Our pancreas create hormone called insulin. It turns glucose from food we eat, into energy.

TYPE 2 DIABETES: FAST FACTS

- More than 1 in every 10 adults has diabetes
- 90-95% of people with diabetes have type 2
- Exercise & weight loss reduce the risk of prediabetes becoming type 2 diabetes by 58%
- Over 25% of adults over 65 have diabetes

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- People with type 2 diabetes make insulin, but their cells don't use it as well as they should. Doctors call this insulin resistance.
- Usually, the causes are genes, extra weight, metabolic syndrome, and too much glucose from your liver.
- Symptoms are mild, but include the following:
 - Being very thirsty
 - Wounds that don't heal
 - Yeast infections that keep coming back
 - Peeing a lot
 - Blurry vision
 - Being irritable
 - Tingling or numbness in your hands or feet
 - Feeling worn out

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2. Heart disease

- India has a very high number of cardiac patients
- Diseases that affect your heart include blood vessel diseases, such as coronary artery disease; heart rhythm problems (arrhythmias); and heart defects you're born with (congenital heart defects), among others.
- Also known as cardiovascular disease, heart disease generally refers to conditions that involve narrowed or blocked blood vessels that can lead to a heart attack, chest pain (angina) or stroke
- Fortunately, several heart diseases can be prevented/treated by making healthy lifestyle choices.


Types of Heart Disease

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3. Hypertension....

- A blood pressure reading of above 140/90 is called high blood pressure or hypertension. Over 100 million people in India suffer with hypertension.
- It is a common condition in which the long-term force of the blood against your artery walls is high enough that it may eventually cause health problems, such as heart disease.
- Usually asymptomatic, hence known as “silent killer”, can cause damage to cardiovascular system

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- May also lead to headaches, shortness of breath or nosebleeds, but these symptoms aren't specific & may only occur when high bp has reached a severe or life-threatening stage.

Causes:

- Overweight
- Smoke
- Don't exercise enough
- Eat too much salt and do not eat much fruits and vegetables
- Do not get enough sleep/disturbed sleep


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4. Cancer


- Irregular and uncontrolled cell growth is called cancer.
- Also called malignancy, it has more than 100 types, including breast cancer, skin cancer, lung cancer, colon cancer, prostate cancer, and lymphoma.
- Symptoms vary depending on the type. Cancer treatment may include chemotherapy, radiation, and/or surgery.
- **Causes:** Cancer is ultimately the result of cells that uncontrollably grow and do not die. Other causes include tobacco, smoking, consuming excess quantities of red meat, alcohol, fats, sugars, and foods rich in preservatives, and addictive.
- Cancers are preventable.

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 **Continued...**

- We can prevent or mitigate the risk of cancer by
 - leading a healthy life
 - eating right
 - indulging in moderate exercises
 - cutting down on alcohol and curbing smoking
 - consuming a healthy and balanced diet
- Many research papers propose that lifestyle changes could reduce the risk of developing cancers.
- About one-third of cancers can be prevented by consuming a plant-based diet that is rich in fiber content, such as fruits and vegetables.

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 **Continued...**


5. Stroke

- It occurs when the blood supply to part of your brain is interrupted or severely reduced, depriving brain tissue of oxygen and nutrients.
- Within minutes, brain cells begin to die. A stroke is a medical emergency. Prompt treatment is crucial. Early action can minimize brain damage and potential complications.
- Symptoms include Trouble with speaking and understanding, Paralysis or numbness of the face, arm or leg, Trouble with seeing in one or both eyes, headache, and trouble with walking

When to see a doctor?


- Seek immediate medical attention if you notice any signs or symptoms of a stroke, even if they seem to fluctuate or disappear.

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- **Think "FAST" and do the following:**
 - Face.** Ask the person to smile. Does one side of the face droop?
 - Arms.** Ask the person to raise both arms. Does one arm drift downward? Or is one arm unable to raise up?
 - Speech.** Ask the person to repeat a simple phrase. Is his or her speech slurred or strange?
 - Time.** If you observe any of these signs, immediately contact your doctor without wasting your single precious second.

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 **Continued...**

- In India 10-15% of strokes occur below the age of 40 years suggesting bad lifestyle.
- **Causes:** A stroke occurs when the blood supply to your brain is interrupted or reduced. This deprives your brain of oxygen and nutrients, which can cause your brain cells to die.
- It may be caused by a blocked artery (ischemic stroke) or the leaking or bursting of a blood vessel (hemorrhagic stroke).
- Some people may experience only a temporary disruption of blood flow to their brain (transient ischemic attack, or TIA).


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6. COPD (Chronic Obstructive Pulmonary Disease)


- COPD is an umbrella term used to describe progressive lung diseases including emphysema, chronic bronchitis, refractory (non-reversible) asthma, and some forms of bronchiectasis.
- This disease is characterized by increasing breathlessness.
- Smoking and air pollution are major causes
- **Symptoms:** For chronic bronchitis, main symptom is daily cough and mucus production for at least 3 months a year for 2 consecutive years
- **Other symptoms are:**
 - Shortness of breath, especially during physical activities
 - Wheezing

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 **Continued...**


- Chest tightness
- Having to clear your throat first thing in the morning, due to excess mucus in your lungs
- A chronic cough that may produce mucus that may be clear, white, yellow or greenish
- Blueness of the lips or fingernail beds
- Frequent respiratory infections
- Lack of energy
- Unintended weight loss (in later stages)
- Swelling in ankles, feet or legs

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 **Continued...**


- **Rural Healthcare**
- The rural populations, who are the prime victims of the policies, work in the most hazardous atmosphere and live in abysmal living conditions.
- Unsafe and unhygienic birth practices, unclean water, poor nutrition, sub human habitats, and degraded and unsanitary environments are challenges to the public health system.

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 **Continued...**

- The majority of the rural population are smallholders, artisans and labourers, with limited resources that they spend chiefly on food and necessities such as clothing and shelter. They have no money left to spend on health.
- The rural peasant worker, who strives hard under adverse weather conditions to produce food for others, is often the first victim of epidemics.

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 **Continued...**

- The majority of rural deaths, which are preventable, are due to infections and communicable, parasitic and respiratory diseases.
- Infectious diseases dominate the morbidity pattern in rural areas (40% rural: 23.5% urban). Waterborne infections, which account for about 80% of sickness in India, make every fourth person dying of such diseases in the world, an Indian. Annually, 1.5 million deaths and loss of 73 million workdays are attributed to waterborne diseases.

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Continued...

- Three groups of infections are widespread in rural areas, as follows.
- i) Diseases that are carried in the gastrointestinal tract, such as diarrhoea, amoebiasis, typhoid fever, infectious hepatitis, worm infestations and poliomyelitis.
- About 100 million suffer from diarrhoea and cholera every year.

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- ii) Diseases that are carried in the air through coughing, sneezing or even breathing, such as measles, tuberculosis (TB), whooping cough and pneumonia.
- Today there are 12 million TB cases. Over 1.2 million cases are added every year and 37,000 cases of measles are reported every year.
- iii) Infections, which are more difficult to deal with, include malaria, filariasis and kala-azar. Irrigation brings with it malaria and filariasis, pesticide use has produced a resistant strain of malaria, the ditches, gutters and culverts dug during the construction of roads, and expansion of cattle ranches, for example, are breeding places for snails and mosquitoes.

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Continued...


- About 2.3 million episodes and over 1000 malarial deaths occur every year in India.
- An estimated 45 million are carriers of microfilariasis, 19 million of which are active cases and 500 million people are at risk of developing filariasis.
- Awareness on the importance of sanitation and hygiene would help to reduce the incidences of such diseases.

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 **Continued...**


- **Environment**
- i) **Water pollution:** India has major water pollution issues. Discharge of untreated sewage is the single most important cause for pollution of surface and ground water in India.
- There is a large gap between generation and treatment of domestic waste water in India. The problem is not only that India lacks sufficient treatment capacity but also that the sewage treatment plants that exist do not operate and are not maintained.
- The majority of the government owned sewage treatment plants remain closed most of the time due to improper design or poor maintenance or lack of reliable electricity supply to operate the plants, together with absentee employees and poor management.

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- The waste water generated in these areas normally percolates in the soil or evaporates. The uncollected waste accumulates in the urban areas and cause unhygienic conditions and release pollutants to surface and ground water.
- **ii) Air pollution:** Air pollution in India is a serious issue with the major sources being fuel wood and biomass burning, fuel adulteration, vehicle emission and traffic congestion.
- Air pollution is also the main cause of the Asian brown cloud, which is causing the monsoon to be delayed.
- India is the world's largest consumer of fuel wood, agricultural waste and biomass for energy purposes.

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 **Continued...**

- Traditional fuel (fuel wood, crop residue and dung cake) dominates domestic energy use in rural India and accounts for about 90% of the total.
- In urban areas, this traditional fuel constitutes about 24% of the total.
- Fuel wood, agri waste and biomass cake burning releases over 165 million tonnes of combustion products into India's indoor and outdoor air every year.
- These biomass based household stoves in India are also a leading source of greenhouse emissions contributing to climate change.

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- **iii) Solid waste pollution:** Trash and garbage is a common sight in urban and rural areas of India. It is a major source of pollution.
- Indian cities alone generate more than 100 million tons of solid waste a year.
- Street corners are piled with trash. Public places and sidewalks are despoiled with filth and litter.

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Public Health Care System in India: Issues & Problems in Rural and Urban India

- Health is a basic human need. Still, many people do not consider it as a priority, especially in rural India. The country has a very high burden of disease also called as triple burden of disease both the communicable and the non communicable and the new pathogens.
- Public health care is the art and science of preventing disease and prolonging life. It aims to understand the socio economic determinants of health. The urban rural divide adds to the challenges of infrastructure and accessibility (preventive and curative health).

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Healthcare system in India

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graph TD
    A[Healthcare System in India] --> B[Primary Level]
    A --> C[Secondary Level]
    A --> D[Tertiary Level]
    B --> E[Sub-Centres]
    B --> F[Primary Health Centre]
    C --> G[Community Health Centre]
    D --> H[Hospitals and Medical Collages]
    
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Health care system in India

1. Input- Health status, Health problems, resources (money, Manpower, Time)
2. Health care services- Preventive, Curative and promotive
3. Health care system- public sector, private sector, Indigineous system of medicine (AYUSH) Voluntary health agencies, National health programmes
4. Output- change in Health status- Live saved and Desease prevented

Input

- **Health status-** a) Demographic profile
 - Large population base
 - Proportion of illiterate population is close to 26%
- b) Mortality profile:-
 - Life expectancy – 67 years

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Health care system in India

- **Health problems:-**
 - Communicable disease- Malaria. T.B, Filaria and AIDS etc
 - Non communicable disease- cancer , stroke
 - Nutritional problems- PEM(Protein energy malnutrition), Nutritional Anamia, LBW(low birth weight)
 - Environmental problems- Lack of safe water, primitive methods of excreta disposal
 - Medical care problems- lack of penetration of health services to periphery and rural areas
 - Population problems- Annual growth rate- 1.2%
- **Resources**
 - Money – India is spending around 2% of GDP on health and family walfare development
 - Health manpower- ASHA, ANM, MPW and health assistant, trained dai and nurses and doctor

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Health care delivery system in India

- **Time-** Proper use of man powers

Public sector- Health care workers & Hospitals

- a) Village level (Grass root level workers)
 - i) ASHA- Accredited social health activist- 1000 population
 - ii) VHG- Village health guide /assistant
 - iii) LD/ TBA- Local dais / trained birth attendants (after training of local dais)
- b) Aanganwadi centre (AWC)- 400 (hilly)/800(plain) population,
- c) Sub centre / gram Arogya kendra-3000/5000 Population , 6 sub centre under 1 PHC
- d) PHC – Primary health centre, 4 PHC under 1 CHC
- e) Community health centre
- f) District hospital (highest level of integration of health services)
- g) Medical college

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ii) Insurance scheme


- a) ESI- employee state insurance
- b) LIC- Life insurance corporation

Other agencies-

- a) Defence service hospitals
- b) Railways hospitals

2. Private sector- private hospitals, polyclinics, nursing home and general practitioners etc.

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3. Indigenous system of medicine (AYSUH)-

- a) Ayurveda b) Yoga C)Unani d) Siddha e) Homeopathy
- Quacks (unregistered practioners)

4. Volunatary health agency- Indian red cross society, Tuberculosis association of India, Hind kushth Nivaran sangh) etc

5. National health programme- NTEP, NACP, NLEP, NVBDCP, RCH, NHM
ETC(National Tuberculosis Elimination Programme, National AIDS and STD Control Programme, National Leprosy Eradication Programme, National Vector Borne Disease Control Programme, Reproductive and Child Health, NatioNal Health Mission)


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Primary level

- **Sub Centers** are designed to serve extremely rural areas where the national govt covers all the expenses. Also has to have health staff to be at least two workers (male and female) to serve a population of 5,000 people (or 3000 in a remote, dangerous location). Sub Centers also work towards educating rural population about healthy habits for a more long-term impact.
- **Services-** curative services for minor, maintain eligible couple register, family planning and contraception, ANC , Internatal care & PNC., Community need assesment., water quality monitering & promotion of sanitation, training for traditional birth attendants, coordinate services of anganwadi workers, assistance to school health services, house to house survey


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Primary level

- **Primary Health Centers** exist in rural areas of 30,000 or more (20,000 in remote areas) and serve as larger health clinics staffed with doctors and paramedics. Patients can be referred from local sub centers to PHCs for more complex cases.
- PHCs also functions to improve health education with a larger emphasis on preventative measures.
- 6 subcenter, 4-6 beds,
- **Staff**- medical officer , AYUSH practitioners, ANM, Pharmacist, Lab technician, Health assistant
- **SERVICES**- Medical care & AYUSH care, basic laboratory services, family planning services, ANC, Internatal care, PNC & new born care, school health services including health education, prevention and control of locally endemic deseases, Promotion of sanitation & safe water, Training of Asha, ANM, LHV, AWW, Pharmacists. National health programme.


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Secondary Health centre


- **Community Health Centre** is also funded by state governments and accepts patients referred from Primary Health Centers.
- It serves 120,000 people in urban areas or 80,000 people in remote areas.
- Patients from these agencies can be transferred to general hospitals for further treatments.
- Thus, CHC's are also first referral units, or **First Referral Unit (FRU)**, which are required to have obstetric care, new born/childcare, and blood storage capacities at all hours everyday of the week.

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- District Hospitals are the final referral centers for the primary and secondary levels of the public health system. These district hospitals often lack modern equipment and relations with local blood banks.
- District level hospitals (sadar hospitals) are controlled by the respective state governments and serving the respective districts (administrative divisions in India, and smaller than districts).


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Tertiary Level

- Medical Colleges and Research Institutions**-All India Institutes of Medical Sciences are owned and controlled by the central government. These are referral hospitals with specialized facilities. All India Institutes presently are functional at New Delhi, Bhopal, Bhubaneswar, Jodhpur, Raipur, Patna and Rishikesh.
- A Regional Cancer Centre is a cancer care hospital and research institute controlled jointly by the central and the respective state governments.
- Government Medical Colleges are owned and controlled by the respective state governments and also function as referral hospitals.


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Issues and Challenges

- Low quality care (under trained health professionals) and diagnostic
- Corruption (absence from work)
- Rural-urban divide
- Lack of awareness
- Low expenditure on health
- Overcrowding of clinics (clinics are overcrowded and understaffed without enough beds to support their patients. As per the statistics, number of health professionals in India is less as compared to developing nations).


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Issues and Challenges

- Accessibility/physical reach
- Lack of convergence (between different agencies, public and private service providers).
- Lack of doctors and other para medical staff
- Functionality of centers/services
- Transportation/communication
- Referral services
- Poor basic sanitation and hygiene, drinking water, under nutrition, dietary habits, gender inequality


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India as a Medical Tourism Destination


- Medical tourism refers to people traveling abroad to obtain medical treatment.
- Medical tourism most often is for surgeries (cosmetic or otherwise) or similar treatments, though people also travel for dental tourism or fertility tourism.
- However, almost all types of health care are available, including psychiatry, alternative medicine, convalescent care, and even burial services.
- Travel Healthcare is a growing sector in India. In 2022, India's travel healthcare sector was estimated to be worth US\$9 billion.
- Approximately 2 million patients visit India each year from 78 countries for medical, wellness and IVF treatments.

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- According to a report from 2019 by the Federation of Indian Chambers of Commerce and Industry, most of the medical patients arrivals in India were from Southeast Asia, Middle East, Africa, and SAARC region.
- India also receives significant number of medical patients from Australia, Canada, China, Russia, the United Kingdom, and the United States.
- The city of Chennai has come to be known as the healthcare capital of India.

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- To encourage applications and ease the travel process for medical tourists, the government has expanded its e-tourism VISA regime in February 2019.
- **Types of Treatment in Medical Tourism in India**
- Orthopaedics (branch of medicine connected with injuries and diseases of the bones or muscles)
- Organ Transplants

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- Neurology (branch of medicine concerned with the study and treatment of disorders of the nervous system)
- Bariatric Surgery (involve making changes to the digestive system to help lose weight)
- Cosmetic/ Plastic Surgery
- Cancer Treatments (Oncology)
- Cardiology (Heart Surgery)

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- Dental/ Dentistry
- Eye Surgery (Ophthalmology)
- General Diagnostics
- Rehabilitation (the action of restoring someone to a healthy or normal life through training and therapy)
- Fertility Treatment e.t.c

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- In Aug 2023, the Government of India's Ministry of Home Affairs has announced the creation of the Ayush Visa category for foreign nationals at promoting travel healthcare in India.
- Advantages of medical treatment in India include reduced costs, the availability of latest medical technologies, and compliance on international quality standards, doctors trained in western countries including the United States and the United Kingdom, as well as English-speaking personnel, due to which foreigners are less likely to face language barrier in India.


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COST

- Most estimates found that treatment costs in India start at around one-tenth of the price of comparable treatment in the United States or the United Kingdom.
- The most popular treatments sought in India by medical tourists are alternative medicine, bone-marrow transplant, cardiac bypass, eye surgery, and joint replacement.


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Quality of care


- India has 839 NABH accredited hospitals. However, for a patient traveling to India, it is important to find the optimal doctor-hospital combination.
- After the patient has been treated, the patient has the option of either recuperating in the hospital or at a paid accommodation nearby.
- Many hospitals also give the option of continuing the treatment through telemedicine.

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- The city of Chennai has been termed "India's health capital". Multi- and super-specialty hospitals across the city bring in an estimated 150 international patients every day.
- Chennai attracts about 45 percent of health tourists from abroad arriving in the country and 30 to 40 percent of domestic health tourists.
- Factors behind the tourists inflow in the city include low costs, little to no waiting period, and facilities offered at the specialty hospitals in the city. The city has an estimated 12,500 hospital beds, of which only half is used by the city's population with the rest being shared by patients from other states of the country and foreigners.
- Dental clinics have attracted dental care tourism to Chennai.

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- Private institutions and organizations such as Max Healthcare have consulted and treated up to 50,000 foreign patients in hospitals across the country.
- The promotion of medical tourism in India has helped private players capitalize on this market opportunity.
 - According to Darpan Jain, Joint Secretary of the Indian government's Department of Commerce, Ministry of Commerce & Industry:
 - The strength of India lies in the skills of our doctors, support staff, calibre of our nurses and the state-of-the-art infrastructure which has come up in the last few years, some of which are still not available even in very developed economies.

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- Bengaluru, Chandigarh Capital Region (CCR), Delhi NCR including Gurugram and Faridabad, Jaipur, Kerala, Kolkata, and Mumbai are other Medical tourism hubs in India.
- Hissar Medicity is an upcoming hub, which was under planning and construction in 2021.

Ease of travel

The government has removed visa restrictions on tourist visas that required a two-month gap between consecutive visits for people from Gulf countries which is likely to boost medical tourism.

A visa-on-arrival scheme for tourists from select countries has been instituted which allows foreign nationals to stay in India for 30 days for medical reasons. In 2016, citizens of Bangladesh, Afghanistan, Maldives, Republic of Korea and Nigeria availed the most medical visas.

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- **Language**
- Despite India's diversity of languages, English is an official language and is widely spoken by most people and almost universally by medical professionals.
- In Noida, a number of hospitals have hired language translators to make patients from Balkan and African countries feel more comfortable while at the same time helping in the facilitation of their treatment.
- A large number of medical tourism companies are facilitating foreigners, especially patients from Arabic, Russian and English-speaking countries.

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Statistics

- In November 2019, a report from The Economic Times stated that of all medical tourist arrivals in India, Maharashtra receives 27%, Chennai receives around 15%, and Kerala receives nearly 5–7% of them.

• Russia

- Russia Beyond notes that of the estimated 300,000 Russian medical tourists who travel worldwide every year for healthcare, India receives over 70,000 of them.


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India as a Medical Tourism Destination

- It is an old concept and people prefer it majorly because of low cost involved
- The biggest benefactors are those patients, who are not able to avail and access specialized procedures, surgeries, doctors, and facilities like fertility treatment and alternative therapies, in their home country.
- Moreover, individuals with nationalized healthcare services, like the UK and Canada, who don't want to wait for medical treatment, are drawn towards health tourism owing to **convenience and quick access to healthcare**.
- The prospects of combining treatment with holiday for recuperating, is an added bonus for the patients as it adds the pleasure factor.


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Besides patients, those involved in medical tourism industry also benefit at-large from it, as the health care providers/hospitals/doctor can become world-class experts in their areas of specializations by having a wider patient base from all over the world, which in turn increases their profitability in the long run.

- Globalizing the opportunities for health care provision, medical tourism also contributes in the increasing flow of health information among doctors worldwide. This way, doctors and health care professionals gain knowledge about the latest development in the medical industry all over the world.

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Why is India the best choice for medical tourism?

- Reduced cost of treatment
- International Quality standards
- Better availability of specialist doctors for transplant surgeries
- Modern Infrastructure
- State-of-the-art treatment facilities and diagnostic instruments
- Expertise of doctors in their super specialty fields
- Trained and compatible staff for international patient care
- Visa on arrival scheme for tourists from selected countries
- Favorable Health covers for international patients
- Remote patient follow up & assistance


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Let us look at some of the important factors driving medical tourism in India.

- Most of the medical practitioners and surgeons at Indian Hospitals are well trained or have worked at some or other time in the leading medical
- Institutions of the world (US, Europe, or other developed nations) Most of the medical practitioners and nurses are well versed in English and other foreign languages.
- World Class medical and diagnostic equipment from global international conglomerates is available at leading Indian hospitals.
- The cost of quality of medical procedures and services is less in India as compared to other countries. India also has a strong pharmaceutical market.

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- There are over 1000 recognized nurses-training centers in India, attached to teaching hospitals that train and graduate nearly 10,000 nurses annually.
- First-rate services and luxury amenities are available even for the budget medical tourists


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Visit more than just treatment

- Patients coming to India often seek more than treatment. They learn wellness techniques such as **Yoga, Ayurveda and Naturopathy**. Many facilities in India have become a **destination for learning as well as healing**.
- Patient can opt for a complete body detox using Yoga techniques and learn them too.
- While these treatments are not available in foreign countries, international patients take it as an opportunity to **stay back to learn and get certified in Yoga and Ayurvedic techniques** for personal well being or starting a teaching school in their own country.

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- Centres like **Patanjali in Haridwar and Varanasi, Astang Yoga Ashrams in Mysore and Shirodhara oil massage schools in Kerala** are in close vicinity of urban cities with international airports.
- Many tourists extend their stay and **enjoy the Indian scenery** by travelling to these places to **celebrate their health** and add a touch of tourism to their trip.


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Medical tourism agent

- A medical tourism agent (also health tourism provider or medical tourism provider) is an organisation or a company which seeks to bring together a prospective patient with a service provider, usually a hospital or a clinic.
- These organisations are generally facilitators and developers of medical tourism, which brings into play a number of issues that do not apply when a patient stays within their own country of origin.

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- Some of these organisations and companies specialise in certain areas of healthcare, such as cosmetic surgery, dentistry or transplant surgery, while others are more generalised in their approach, providing multiple services over a wide range of medical specialities.
- These organisations may also focus on providing services in a single country or they may provide access to treatment across multiple nations.
- Medical tourists look to health tourism providers to provide information about quality, safety and legal issues, but the quality of such information and services varies on the size, scale and the standards of the facilitators themselves.

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