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| Course title: Population Health & Sustainable Development: Analytical Perspective | | | | |
| Course code: MPD 130 | No. of credits: 3 | L-T-P: 38-04-06 | Learning hours: 45 | |
| Pre-requisite course code and title (if any): | | | | |
| Department: Department of Policy and Management Studies | | | | |
| Course coordinator(s): Dr Chandan Kumar | | Course instructor(s): Dr Chandan Kumar | | |
| Contact details: chandan.kumar@terisas.ac.in | | | | |
| Course type: Core | | Course offered in: Semester 2 | | |
| Course description | | | | |
| <p>This course is designed to impart a relevant understanding of the population health required for a sustainable development practitioner. It begins by discussing population health as a fundamental marker of sustainable development, to designing a population health study, to comprehending decision-making processes in health care. The course is divided into four broad modules; first, relating to basic concepts and frameworks for the comprehension of population health and its linkages to sustainable development; second, relating to data, measures and study designs for exploring population health; third includes the recent scenario, major issues and challenges in global health; and fourth focuses on the processes for health promotion and developing healthy public policy. The aim is to familiarize students with the nuances of population health analysis, and processes for decision-making in the health care system, with a focus on the national, regional, and global contexts.</p> | | | | |
| Learning objectives: | | | | |
| <ul style="list-style-type: none"> • To provide students with a basic understanding of population health, its role and importance in development discourse, and the factors affecting the health of the population. • To discuss the sources and quality of required information, basic measures, and the processes of designing a relevant study for assessing population health. • To enable students to assess the global population health scenario and comprehend the contemporary challenges in global health. • To provide an overview of the concepts and frameworks of health promotion and decision-making processes in population health care. | | | | |
| Course content | | | | |
| Module | Topic | L | T | P |
| 1. | <p>Population Health & Sustainable Development: Fundamentals</p> <p>The main aim of this module is to introduce the fundamental concepts related to population health and its linkages to sustainable development. Human health, monitored and understood ecologically at the population level, provides an integrated outcome measure of the extent to which human societies manage to live within the sustainable limits of the environment at regional and, ultimately, global levels. Along with discussing the full spectrum of population health, this module also focuses on the changes in population over time which can affect health. Major points of discussion under this module include:</p> <ol style="list-style-type: none"> a) Defining Health, Public Health, and Population Health b) Health and development linkages c) Population Health: A fundamental marker of Sustainable Development d) Determinants of Health e) Demographic and Health/Epidemiological Transition f) Population Health and the Health Care System | 8 | | |
| 2. | <p>Population Health: Data, Measures, and Study Designs</p> <p>This module will extend the basic understanding of study designs, sources and quality of data, measures, and analytics for population health assessment. Quality data allows the health system to establish baselines, benchmarks, and goals to keep moving forward. Measurement of</p> | 10 | 2 | 6 |

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| | <p>population health, its causes, and its distribution is fundamental to the development of evidence for health policies, and for the evaluation and planning of health systems and intervention programs. Major discussions and computations involved in this module are as follows:</p> <ol style="list-style-type: none"> Sources and Quality of Health Data Summary Measures of Population Health Summary Measures of Health Inequality Designing Population Health Studies Assessing Health Risks in Populations | | | |
| 3. | <p>Population Health: Status, Major Issues & Challenges The objective of this module is to provide an overview of the global, regional, and national trends and patterns of key health indicators and diseases, along with the nutritional status of the population. This also includes the major contemporary challenges in global population health and nutrition. Specific discussions include:</p> <ol style="list-style-type: none"> Health Trends of Communicable Diseases Global Burden and Health Trends of Non-Communicable Diseases The State of Global Nutrition Global Food and Nutrition Challenges Global Environmental Change and Health Major contemporary challenges in global health, e.g., Mental Health, Adolescent Health, Pandemics, Disparity in Healthcare etc. | 10 | 2 | |
| 4. | <p>Population Health Promotions, Interventions, Evaluations & Policy Perspectives This module introduces the concept of health promotion and its evolution, population health interventions, methods of their evaluations, and healthy public policy. The module discusses the Health in All Policies (HiAP) approach to improve evidence-based policymaking in order to promote the health and well-being of countries. Major discussions involved in this module are as follows:</p> <ol style="list-style-type: none"> Health Promotion: Concept, Models, and Practice Frameworks Types and Levels of Population Health Interventions Framework and Methods for Health Programme Evaluation Decision-Making in Health Care Concept of Health in All Policies (HiAP) | 10 | | |
| | | 38 | 4 | 6 |
| <p>Evaluation criteria: Course grades will be based on the following criteria:</p> <ul style="list-style-type: none"> Minor 1 Exam- Written Test (20%) Minor 2 Exam - Submission and Presentation of Assignment (30%) Major Exam- Written Test (50%) | | | | |
| <p>Learning outcomes: Upon completion of the course, candidates would be:</p> <ol style="list-style-type: none"> able to understand the fundamental concepts, tools, and processes to assess population health scenarios (All evaluations) able to design a small population health study and summarize the results in the form of a brief report (Minor Test-2) aware of multifaceted approaches and processes of decision-making in health care and able to apply various common frameworks of health policy (All evaluations) | | | | |

Pedagogical approach

Classroom lectures, application of excel based functions for tabulating the sample data and required analysis, invited talks from renowned public health scientists, and case studies.

Suggested Readings**Module 1:**

- Mayzell, G. (2016). *Population Health: An Implementation Guide to Improve Outcomes and Lower Costs*. Boca Raton, FL: CRC Press (Taylor & Francis Group).
- Young, T. K. (2004). *Population Health: Concepts and Methods, 2nd Edition*. New York: Oxford University Press, Inc.
- Redclift, M., & Springett, D. (2015). *Routledge International Handbook of Sustainable Development*. New York: Routledge.
- Balarajan, Y., Selvaraj, S., & Subramanian, S.V. (2011). Health care and equity in India. *The Lancet*, 377(9764), 505-515.
- Jacobsen KH (2014). *Introduction to Global Health, Second Edition*. Burlington, MA: Jones & Bartlett Learning.
- McCracken K, Phillips DR (2012). *Global Health: An introduction to current and future trends*. New York: Routledge.
- Phelan, J. C., Link, B. G., & Tehranifar, P. (2010). Social conditions as fundamental causes of health inequalities: theory, evidence, and policy implications. *Journal of health and social behavior*, 51 Suppl, S28–S40.
- WHO (2010). *A Conceptual Framework for Action on the Social Determinant of Health*. Social Determinants of Health Discussion Paper 2. Debates, Policy & Practice, Case Studies. Geneva: World Health Organization (WHO).

Module 2:

- Mayzell, G. (2016). *Population Health: An Implementation Guide to Improve Outcomes and Lower Costs*. Boca Raton, FL: CRC Press (Taylor & Francis Group).
- Joshi, A., Thorpe, L., & Waldron, L. (2019). *Population health informatics: driving evidence-based solutions into practice*. Burlington, MA: Jones & Bartlett Learning.
- Young, T. K. (2004). *Population Health: Concepts and Methods, 2nd Edition*. New York: Oxford University Press, Inc.
- McCracken K, Phillips DR (2012). *Global Health: An introduction to current and future trends*. New York: Routledge.
- Jacobsen KH (2014). *Introduction to Global Health, Second Edition*. Burlington, MA: Jones & Bartlett Learning.
- Bharat, S., & Sethi, G. (Eds.) (2019). *Health and Wellbeing of India's Young People: Challenges and Prospects*. Singapore: Springer Nature Singapore Pte Ltd.
- Davies, M., & Macdowall, W. (2006). *Health Promotion Theory*. London: London School of Hygiene & Tropical Medicine
- WHO (2020). Health Equity Monitor: Compendium of Indicator Definitions. https://cdn.who.int/media/docs/default-source/gho-documents/health-equity/health-equity-indicator-compendium-vjuly2020.pdf?sfvrsn=927c7420_2
- Schlottheuber, A., & Hosseinpoor, A. (2022). Summary Measures of Health Inequality: A Review of Existing Measures and Their Application. *International Journal of Environmental Research and Public Health*, 19(6), 3697.

Module 3:

- McMichael, A. J., Campbell-Lendrum, D. H., Corvalán, C. F., Ebi, K. L., Githeko, A. K., Scheraga, J. D., & Woodward, A. (2003). *Climate change and human health: Risks and Responses*. Geneva: World Health Organization.
- Boccia, S., Villari, P., & Ricciardi, W. (2015). *A Systematic Review of Key Issues in Public Health*.

Switzerland: Springer International Publishing.

- Mohanty, S. K., Mishra, U. S., & Chauhan, R. K. (Eds.) (2019). *The Demographic and Development Divide in India: A District-Level Analyses*. Singapore: Springer Nature Singapore Pte Ltd.
- Bharat, S., & Sethi, G. (Eds.) (2019). *Health and Wellbeing of India's Young People: Challenges and Prospects*. Singapore: Springer Nature Singapore Pte Ltd.
- Faghih, N., & Forouharfar, A. (Eds.) (2022). *Socioeconomic Dynamics of the COVID-19 Crisis: Global, Regional, and Local Perspectives*. Cham, Switzerland: Springer Nature Switzerland AG.

Module 4:

- Davies, M., & Macdowall, W. (2006). *Health Promotion Theory*. London: London School of Hygiene & Tropical Medicine.
- Green, L. W., & Kreuter, M. W. (1991). *Health Promotion Planning: An Educational and Environmental Approach, 2nd Edition*. California City, CA: Mayfield Publishing Co.
- Glanz, K., Rimer, B. K., & Viswanath, K. (2008). *Health behavior and health education: theory, research, and practice, 4th Edition*. San Francisco, CA: John Wiley & Sons, Inc.
- Clavier, C., & de Leeuw, E. (2013). *Health Promotion and the Policy Process*. New York: Oxford University Press, Inc.
- Timmreck, T. C. (1995). *Planning, Program Development, and Evaluation: A Handbook for Health Promotion, Aging, and Health Services*. Sudbury, MA: Jones and Bartlett Publishers.
- Young, T. K. (2004). *Population Health: Concepts and Methods, 2nd Edition*. New York: Oxford University Press, Inc.
- Rao KD, Ramani S, Hazarika I, George S (2013). When do vertical programmes strengthen health systems? A comparative assessment of disease-specific interventions in India. *Health policy and planning*, 29(4), 495-505.
- National Science Foundation (2002). The 2002 User-Friendly Handbook for Project Evaluation. <https://www.nsf.gov/pubs/2002/nsf02057/nsf02057.pdf>
- CDC (2021). Comprehensive Cancer Control Branch Program Evaluation Toolkit, 2nd Edition. <https://www.cdc.gov/cancer/ncccp/pdf/CCC-Program-Evaluation-Toolkit-508.pdf>
- Hasenfeld, Y., Hill, K., & Weaver, D. (n.d.). A Participatory Model for Evaluating Social Programs. https://ctb.ku.edu/sites/default/files/chapter_files/eval_social.pdf
- American Academy of Pediatrics (2008). Evaluating Your Community-Based Program Part II: Putting Your Evaluation Plan to Work. <https://hsc.unm.edu/community/toolkit/docs6/evaluatingpart2.pdf>

Additional information: Up to FIVE candidates will be accommodated from other courses/disciplines after discussion with the course coordinator

Student responsibilities

Attendance: At least 75% attendance will be necessary to be able to appear for the final exam.

Prepared by: Dr Chandan Kumar

Course reviewers

1. Prof. Rasheda Khanam, Professor (Health Economics), School of Business, University of Southern Queensland, Australia.
2. Dr. Manacy Pai, Associate Professor, Department of Sociology, Kent State University, Kent, Ohio, United States of America.