

Semester: I
Core Course

3. Course Code & Title: MPC 51 03 & Demography, RMNCH+A and Family Planning
Credits: 3

Course objectives:

This course intends to enable students understand the demographic principles and techniques, and equip them to apply these concepts in public health practice and research.

Course outcomes:

On completion of the course, students will be able to

1. Define demography and understand its scope and importance in public health.
2. Describe population composition and characteristics using demographic theories and concepts
3. Apply demographic principles to explain population dynamics (fertility, mortality and migration)
4. Identify appropriate sources of demographic data, perform basic demographic techniques and ensure comparability across populations.
5. Describe population growth and projection, implications of rapid population growth and population control measures
6. Understand the importance of Reproductive, Maternal, Newborn, Child and Adolescent Health and describe the national programmes to promote RMNCH+A.

Skills Developed:

On completion of course the students will be skilled in identifying demographic data, applying demographic analyses and standardization techniques.

Teaching methods: This course will be delivered using a variety of methods and modalities such as classroom and online lectures, self-study, seminars, field visit and group work.

| Units and Topics | Teaching Methods | | | | | | | | Mandatory Readings | | |
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| Unit-I: Introduction to demography and population sciences | | | | | | | | | | | |
| 1.1 Definition and history of demography, principles of demographic analysis, demographic transition and stages | L | FW | FV | CS | GW | SS | SP | P | Siegel Jacob, S., & Swanson David, A. (2004). The Methods and Materials of Demography. <i>Elsevier Academic Press, California, USA</i> . Weinstein, J., & Pillai, V. K. (2015). Demography: The science of population. Rowman & Littlefield. | | |
| Unit –II: Population composition | | | | | | | | | | | |
| 2.1 Population Composition - Age, sex, race, ethnicity, nationality, religion, caste, language, marriages -Indicators 2.1.1 Age structure, Age-sex pyramid (population pyramid), demographic transition, demographic dividend, age-dependency ratios, child dependency ratio, old-aged dependency ratio | X | | X | | | X | | | Siegel Jacob, S., & Swanson David, A. (2004). The Methods and Materials of Demography. <i>Elsevier Academic Press, California, USA</i> . | | |
| | | | | | | | | Grundy, E (2002) Demography and public health. In: Oxford Textbook of Public Health. Oxford University Press, Oxford, pp. 807-828. | | | |
| Unit-III: Demographic analysis | | | | | | | | | | | |
| 3.1 Fertility - Child Women Ratio, Crude Birth Rate, General Fertility Rate, General Marital Fertility Rate (GMFR), Age-Specific Fertility Rate (ASFR), Total Fertility Rate (TFR), Gross Reproductive Rate (GRR), Net Reproduction Rate (NRR). | X | X | | | | X | | X | Grundy, E (2002) Demography and public health. In: Oxford Textbook of Public Health. Oxford University Press, Oxford, pp. 807-828. | | |
| 3.2 Mortality – Crude death rate, specific death rate, case fatality rate, proportional | | | | | | | | | Siegel Jacob, S., & Swanson David, A. (2004). The Methods and Materials of Demography. <i>Elsevier Academic Press, California, USA</i> . | | |

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| <p>mortality rate and ratio, adjusted or standardized rates, life table and survival analysis using life table.</p> <p>3.3 Migration - Types of migration (temporal, internal and international), theories of internal migration (Ravenstein theory, Lee's push and pull theory, Social network theory), measuring migration (in-Migration, out-migration, net migration and gross migration), effects of migration on population growth</p> <p>3.4 Determinants of fertility, mortality and migration</p> <p>3.5 Standardization and population comparison</p> | | | | | | | <p>Ravestein, E. (1885): The laws of migration, <i>Journal of the Royal Statistical Society</i>, 167-235.</p> <p>Hagen-Zanker, J. (2008). Why do people migrate? A review of the theoretical literature</p> <p>Cutler, D., Deaton, A., and Lleras-Muney, A. (2006). The determinants of mortality. <i>Journal of Economic Perspectives</i>, 20(4), 97-120.</p> <p>Fernandes, A., Carballo, M., Malheiros, J., and Pereira Miguel, J. (eds.) (2007). <i>Challenges for Health in the Age of Migration</i>. Conference on Health and Migration in the EU, Lisbon, Portugal, 27-28.</p> |
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| Unit-IV: Sources of demographic data | | | | | | | |
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| <p>4.1 Primary sources of demographic data collection in India -Census, Civil Registration Systems, Sample Registration Systems-SRS, and Demographic Health Surveys – National family Health Surveys (NFHS) & District Level Household Surveys</p> <p>Secondary sources of demographic and health data collection in India.</p> | X | X | X | X | | | <p>Siegel Jacob, S., & Swanson David, A. (2004). The Methods and Materials of Demography. <i>Elsevier Academic Press, California, USA</i>.</p> <p>https://censusindia.gov.in/2011-common/censusdata2011.html</p> <p>http://rchiips.org/nfhs/ http://crsorgi.gov.in/web/index.php/auth/login</p> <p>Mahapatra, P. (2010, January). An overview of the sample registration system in India.</p> |

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|---|---|--|---|--|---|---|--|---|
| | | | | | | | | In Prince Mahidol award conference & global health information forum (pp. 27-30). |
| Unit-V: Demography in application: population growth, projection and control | | | | | | | | |
| 4.1 Population growth, projection and control: implications of population growth, significance of population control, evolution of contraception and family planning. | X | | X | | X | X | | Raulet, H. M. (1970). Family planning and population control in developing countries. <i>Demography</i> , 7(2), 211-234. |
| 4.2 Population control and promotion of health in India - National Population Policy of India, National Family Welfare Programme, Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) | | | | | | | | |
| | | | | | | | | Alexandratos, N. (2005). Countries with rapid population growth and resource constraints: issues of food, agriculture and development. <i>Population and Development Review</i> , 31, 237– 258. |
| Unit-VI: Reproductive, Maternal, Newborn, Child and Adolescent Health | | | | | | | | |
| 6.1 Introduction to the RMNCH+A services – historical context, evolution, coverage and innovations | X | | X | | X | X | | Taneja, G., Sridhar, V. S. R., Mohanty, J. S., Joshi, A., Bhushan, P., Jain, M., ... & Gera, R. (2019). India's RMNCH+ A Strategy: approach, learnings and limitations. <i>BMJ global health</i> , 4(3), e001162. |
| 6.2 Components of service delivery under RMNCH+A – Programmes by the Government of India | | | | | | | | Chokshi, M., Patil, B., Khanna, R., Neogi, S. B., Sharma, J., Paul, V. K., & Zodpey, S. (2016). Health systems in India. <i>Journal of Perinatology</i> , 36(3), S9-S12. |

L- Lecture; FW- Field work; FV - Field Visit; CS - Case study; GW- Group work; SS- Self-study; SP- Seminar presentation; P-Practical

Evaluation: As per CBCS guidelines, this course will be evaluated for 100 marks with a Continuous Evaluation (CA) component of 40 marks and End-Semester Evaluation (ESA) component of 60 marks.

Additional Readings

1. Bhende, A., & Kanitkar, T. (1982). Principles of Population. Studies. Himalaya Publishing House, Bombay.
2. Weeks, J. R. (2020). Population: An introduction to concepts and issues. Cengage Learning.
3. P Singh, S. N. (1989). Population Transition in India (Vol. 1). BR Publishing Corporation.
4. James, K. S. (2011). India's demographic change: opportunities and challenges. *Science*, 333(6042), 576-580.
5. Pathak, K. B., & Ram, F. (1992). Techniques of demographic analysis. Himalaya Publishing House.