

CENTRE OF SOCIAL MEDICINE AND COMMUNITY HEALTH
SCHOOL OF SOCIAL SCIENCE
JAWAHARLAL NEHRU UNIVERSITY

Monsoon Semester 2022

Course No.	: SM 621
Course Title	: Operational Research and Systems Analysis in Community Health Research
Credits	: 2
Method of Instruction	: Lectures, Group Discussions and Seminars
Method of Evaluation	: 1.5 credit Written Assignment + 0.5 credit Viva-voce
Course Incharges	: Prof. Ritu Priya and Dr. Prachin Ghodajkar

Course Outline

The course aims at strengthening the students' understanding of Health Systems Research .It traces the evolution of Operational Research and Systems Analysis and their use in public health as tools for planning, service strengthening and evaluation. It then focusses on the development of the field of Health Systems Research in the last two decades and the varied perspectives within it. The course consolidates the theoretical and methodological learnings across courses over the previous two semesters and provides an approach to operationalise them in practice. Positivist, realist and holistic theoretical approaches are examined for their strengths and limitations for developing a contextually rooted and comprehensive health system.

Introduction

- Systems Analysis and Operational Research: An Introduction
- Theoretical Approaches: Positivist, Realist, Holist

Conceptualising Health Systems

- Health Systems as a Complexity
- Ecosystems and Social Systems
- Meaning Systems and Political Economy
- Health Care Systems and Health Service Systems

Application of Systems Analysis and Operational Research to Health Services

- Systems Analysis and Operational Research as Applied to Health Systems
- Mathematical modelling for Medical Service Systems
- Health Systems Research
- Health Policy and Systems Research
- Complexity in HSR
- Holistic Health Systems Approach— Epistemological Pluralism and Trans-Disciplinarity

Examples of Health Systems Research and Its Application for Planning and Evaluation

- Application of HSR to National Health Programmes
- Evaluation of Complex Systems: the NRHM and NHM; Ayushman Bharat
- Issues of Quality in Health Service Systems

Politics of Health Systems Research, Policy and Planning

- The Politics of Health Systems Research and Health Services Research

- The Politics of Health Data Sets
- Applying the Systems Approach to Health Policy, Planning and Implementation

Reading List

Introduction

1. Ackoff, R.L. (1971): "Towards a System of Systems Concepts", *Management Science* Vol. 17, No. 3 pp.661-671.
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Conceptualising Health Systems

1. WHO (2007): *World Health Report 2007-Everybody's business: Health Systems Strengthening.....*, WHO, Geneva.
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8. Baer, Hans A., Singer Merrill & Ida Susser (2003): "Medical Anthropology and the World System," 2nd ed. Praeger Publisher, Westport, Connecticut London, pp: 3-15, 31-54.
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10. Priya, R. and Kurian C.M. (2018). Regulating Access and Protecting Traditional Health Knowledge through Intellectual Property Rights? Issues from a Holistic Health Systems Perspective. *Science, Technology & Society* 23:3 (2018): 1–26.

Application of Systems Analysis and Operations Research

Methodological Approaches:

1. World Health Organisation (1976): "Application of Systems Analysis to Health Management", Geneva, WHO.

2. Gill Walt, Jeremy Shiffman, Helen Schneider, Susan F Murray, Ruairi Brugha and Lucy Gilson (2008). 'Doing' health policy analysis: methodological and conceptual reflections and challenges. *Health Policy and Planning* 2008;23:308–317.
3. Sheikh K, Gilson L, Agyepong IA, Hanson K, Ssengooba F, et al. (2011) Building the Field of Health Policy and Systems Research: Framing the Questions. *PLoS Med* 8(8): e1001073. doi:10.1371/journal.pmed.1001073
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5. Bennett S, Agyepong IA, Sheikh K, Hanson K, Ssengooba F, et al. (2011) Building the Field of Health Policy and Systems Research: An Agenda for Action. *PLoS Med* 8(8): e1001081. doi:10.1371/journal.pmed.1001081
6. Gilson L. Editor (2012). *Health Policy and Systems Research: A Methodology Reader*. AHPSR and WHO, Geneva.
7. Priya R, Gaitonde R., Gandhi M.P, Sarkar, A., Das S., Ghodajkar P. (2019). The Alm-Ata Declaration and Elements for a PHC 2.0. *Medico Friend Circle Bulletin*, No. 380, 1-8. <http://www.mfcindia.org/mfcpdfs/MFC380.pdf>
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Examples of Health Systems Research

1. Population Council (1986): "Operations Research! Lessons for Policy and Programmes", Population Reports, series J., No.31, May-June.
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5. Rao, K.V. (1982): Study of Leprosy Control Programme in Rural Population in Chingleput District, New Delhi, CSMCH/SSS, Ph. D. Thesis.
6. Mishra, B.D. et al (1982): Organisation for Change: A Systems Analysis of Family Planning in Rural India, New Delhi, Radiant.
7. Banerji, D. (1992): "Combating AIDS as a Public Health Programme in India", New Delhi, VHAJ and Nucleus for Health Policies and Programmes.
8. Dutta, Amlan (1996): Some Aspects of the Public Health Services in Purulia District: A Systems Analysis, New Delhi, CSM&CH, SSS, Ph. D. Thesis.
9. Bajpai, Nirupam, Sach, Jeffrey D. & Dholakia Ravindra H. (2010): "Improving Access and Efficiency in Public Health Services: Mid-term Evaluation of India's National Rural Health Mission", The Earth Institute Columbia University, NY and Sage Publication, New Delhi.
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14. Priya R. 2012. 'AYUSH and Public Health: Democratic Pluralism and the Quality of Health Services', in Sujatha V. & Abraham L. (Ed.) *Medical Pluralism in Contemporary India*, Orient Blackswan., p. 103-129.

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17. Abhijit Vinayak Banerjee, Esther Duflo, Rachel Glennerster, Dhruva Kothari, Improving Immunization Coverage in Rural India: A Clustered Randomized Controlled Evaluation of Immunization Campaigns with and without Incentives. *BMJ* (online) 340 (May17, 2010):c2220 DOI: 10.1136/bmj.c2220
18. Scott et al. Negotiating power relations, gender equality, and collective agency: are village health committees transformative social spaces in northern India? *International Journal for Equity in Health* (2017) 16:84 DOI 10.1186/s12939-017-0580-4
19. Priya R. and Ghodajkar P. The Structural Basis of Corruption in Healthcare in India, in *Healers or Predators? Healthcare Corruption in India* Editors: Nundy S., Desiraju K., Nagral, S., Oxford University Press, 2018, New Delhi. Pp. 3-43.

Politics of Health Systems Research and Planning

1. Commission on Health Research for Development (1990): “Health Research: Essential Link to Equity in Development”, Delhi, Oxford University Press.
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7. GoI (2017): National Health Policy-2017. Govt. of India. New Delhi.
8. Priya R (2005): “Public Health Services in India: A Historical Perspective” in Gangolli, Leena V; Ravi Duggal and Abhay Shukla (eds) *Review of Healthcare in India*, Cehat, Mumbai pp: 41-74.
9. Priya R. 2021. Critical Holism as Public Health Theory: Towards a Unifying Framework for Research, Policy and Planning. *Dialogue: Science, Scientists and Society*, Vol. 4, Special Issue on Public Health. DOI: <https://doi.org/10.29195/DSSS.03.01.0033>

Suggested Readings

1. Blumstain, Alfred et al (ed.) (1970): “The Role of Systems Analysis for Social Problems in Systems Analysis for Social Problems, Operations Research Council, Washington.
2. Ackoff, R.L. (1960): “Systems, Organisations and Interdisciplinary Research”, *General Systems of Year Books*, Vol. 5, pp.1-8.
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