Arba Minch University

College of Medicine and Health Sciences

Department of Public Health

Master of Public Health (MPH)

October 12, 2014

Arba Minch

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Introduction

Background

Arba Minch University (AMU) was established in 1996 E.C at the premises of the former Arba Minch water technology institute (AWTI), which was established in 1978 E.C.

The university's main campus is located at 505 km south west of Addis Ababa and 5km north of Arba Minch town on the road to Addis Ababa. Currently the university encompasses one institute, six Colleges and one school that conduct education in diversified fields of study which ranges from undergraduate to masters level in regular, summer, weekend, and distance and continuing education programs. Arba Minch University is one of the fastest growing Universities in Ethiopia regarding to the number of colleges, the number of fields of study, academic staffs, technical, and infrastructural capacities.

Among the colleges, the College of Medicine and Health sciences (formerly faculty of health sciences) was established in 2000E.C to respond for national demand of human resource deficit in health sciences. The College, at present, has more than 30 lectures in four departments and one school: Public Health (Health Officer), Nursing, Medical Laboratory Science, Midwifery and Medicine respectively.

The department of public health comprises six unites, namely; Epidemiology and Biostatistics, Health Service Management & Health Economics, Population and Family Health, Health Education and Behavioral Sciences, Environmental and Occupational Health, and Health Officer.

Under the college of Medicine and Health Sciences, two projects with great relevance to public Health study are underway. The Demographic and Health Survey of Arba Minch Zuriya woreda which is one of the six sites in the country funded by CDC through EPHA since 2001 E.C is of greater importance to this program. The program is basically following demographic dynamics and AIDS mortality in longitudinal basis. The site has great importance to graduate study program as a field research center, which can be used by students and instructors. The PCV project, which started in 2004 E.C, laid a frame work about the entire woreda which might provide adequate information about the entire woreda and a resource to different community based studies as necessitated by respective courses.

Rationale:

Master of public health has been given in few Universities of the country. Progressively, a number of public institutions were joined to meet the increasing demand of public health professionals. Though there were graduates from various higher institutions in the country and abroad, there is high demand of the experts from private, governmental and Non governmental agencies. In addition, the admission opportunity is extremely limited at those already launched institutions because the program requires adequate and highly qualified Human power.

Moreover, similar programs at different Institutions do not support the demand of customers/applicants who do not want to leave their job for years to complete the study. This program gives a chance to advance their professional capacity without leaving their job and family for long period of time. On this regard, it is mandatory to avail the opportunity to the potential utilizes where they live.

The Ethiopia health system needs evidence based planning for which public health professionals who are capable of carrying out scientific and need based researches for program planning and developing interventional strategies than ever in the past. The threats of developing nation, communicable diseases including current pandemic-HIV/AIDS and emerging health and health related problems, calls capable public health experts for designing sound intervention plans; appropriate implementation; effectively monitor and evaluate the achievements and use for further activities.

This program from the very local provides opportunities to surrounding community to persue their further education, enhance the loacal health system through evidence based studies and strategy development, influence national policies and guidelines, increase the national work force and at large improve the health of the community.

Vision, Mission and Goals of Public Health

Vision: The Department of Public Health aspires to become one of leading center of excellences in East Africa in public health training, research and community service.

Mission: Based on an ecological model of health, the mission of this program is to educate public health professionals to use up to date analytic and managerial public health tools and skills to influence people and environmental conditions; manage programs and institutions; undertake applied research and play leading roles at different levels of Ethiopian Health System, in ways that advance public health objectives.

Goals: Our graduates will possess the skills necessary to become highly effective public health practitioners and leaders. Their specific expertise in the strategic use of technical and managerial public health tools will enable them to work collaboratively with a broad range of other public health experts to plan high-impact health enhancement initiatives, and to implement or supervise the implementation of public health initiatives.

Aims of the Public Health Postgraduate Training

The aims of this program include training of professionals who would manage health services and programs at the woreda/district, regional and national levels; teach in public health training programs at various levels from diploma to masters levels; undertake public health research that inform programs and policy; and formulate policies. At all levels the focus will be to help students acquire the basic skills in public health that are relevant to the contexts of developing country settings.

Program objectives:

- To enable the prospective graduates provide higher level services in program management
- To produce public health professionals used in teaching in public health programs
- Enable graduates understand health and health related public health statistics
- Prepare them to undertake research and be critical reader of public health related evidence.
- Prepare professionals who are advocates for the policy formulation and changes towards a better health of the population.

Philosophy

The philosophy of teaching in public health is research based and innovative basically student centered and community based.

Graduate Profile:

A prospective graduate of the masters program will have the following core competencies:

- Provide effective technical as well as managerial leadership in large public health programs;
- Effectively advocating and promoting public health among the general public and policy makers;
- Design, implement, monitor and evaluate public health interventions;
- Generate as well as critically evaluate health and health-related evidence; and
- Utilize theories and skills in public health research.
- Make evidence based decision in public health issues.
- Identify major public health problems in Ethiopia

Program requirements

Admission requirements & application

Applicants to the post graduate public health training at masters level should have a minimum of first degree in medical and health sciences or in a related field with experience in health programs (such as statistics, demography, psychology, and health informatics). In addition he/she have to fulfill the requirements of the School of Graduate Studies of the University which include:

- A minimum of 2 year services in relevant field for government sponsored and none for private applicants.
- Able to pass the entrance examination set by the University
- Who can present evidence of sponsorship (if sponsored)
- Must produce three recommendations from his/her employee & academic professors
- Fulfill other contemporary requirements set by the University

Fees and Scholarships

Upon application for a place in the postgraduate program, applicants should append a non-refundable application fee according to the contemporary payment rate payable to the Arba Minch University. Those students who are accepted are further required to pay a registration fee along with tuition fee per semester. Tuition fees for master program are to be decided by the University every year. The costs for undertaking thesis should be covered by the applicants themselves or their sponsoring organizations. Organizations/employers which sponsored students, up on presenting signed agreement, would be communicated immediately after registration to process fee transfer per semester. Special arrangements can also be done with governmental, non-governmental and private organizations to set special programs and in which case fees and scholarship arrangements could differ from what applies under normal circumstances.

Promotion:

An MPH student who has a minimum CGPA of 3.0 will be promoted to the next academic year. No more than one C grade is allowed for a student at graduation. Students scoring 2.5-2.99 will have an academic dismissal with probation where they are required to repeat all courses with C grades and below in that semester. A student who scores a cumulative GPA below 2.5 in the first year of study or later will have an academic dismissal. No student can graduate with a grade of "D" and "F"; they must be cleared before graduation. No student is allowed to graduate with more than one "C' grade.

Graduation Requirements:

Students must complete all the required courses and achieve the required CGPA of 3.0 and complete and defend successfully his/her thesis work to be eligible for graduation. No student can graduate with an "F" and/or "D" grades in any of the courses.

Instructional Methodology:

The course works are organized in blocks and method of instruction will be in the form of lectures and seminars that are supported by tutorials, group assignments, project papers, guest lectures and computer laboratory activities as necessary. Alternatively a student may do independent study of modules supplemented by short tutorial block sessions and take examination. This model encourages candidates who cannot leave their work places frequently and for longer period. The demand on the studies will be the same as the regular block teachings. The student must get prior approval to the mode of instructional method.

Method of Assessment

Whereas specific combinations will be decided by the specific course instructors, student evaluation will be made by written examination, exercises, seminar presentations, and off campus assignments. A student must attend at least 90% of the scheduled class time for the course in order to qualify to take the examination for that course. Students wishing to receive Masters (MPH) Degree in Public Health are required to defend their thesis publicly and successfully complete their work. The evaluation considers both the written document and the related discussion during the defense. Student must score B or above grade on the thesis to successfully complete the training. Others with **major revision shall undergo through another defense session** after correction of comments (this should be after 30 days of first defense) or if the thesis is rejected student **may be required do another research work** depending on the recommendation of the Board of examiners.

Grading system:

The grading system will be in consistent with the current grading system of the department of public health.

A^+>= 90 A = 85 – 89.9

B^+ = 80 – 84.9 B = 70 – 79.9

C^+ =65 – 69.9 C = 60 - 64.9

D^+ = 55 – 59.9 D = 50 – 54.9

F < 50

Thesis pass marks (A=excellent B+=very good B=good, C+ = Satisfactory)

Quality Assurance: The Quality of the training will be ensured through:

- Student evaluation through different assessment methods
- Evaluation of instructors by peers and students including evaluation of the course at the end of course delivery
- External examination after completion of training
- Evaluation and revision of curriculum after three years

Degree Nomenclature:

After successful completion of all the required courses, the students will be awarded ***Degree of Masters of Public Health*** **(‘በህብረተሰብ ጤና አጠባበቅ ዘርፍ የማስተርስ ዲግሪ’)**

Course Requirements:

YEAR	COURSE TITLE	COURSE CODE	CREDIT HOURS(days)
Year I	**Semester I**		
	Public Health Matters	PubH601	2 (10 days)
	Epidemiology	PubH612	4 (12 days)
	Biostatistics	PubH611	4 (12 days)
	Health Service management	PubH613	4 (12 days)
	SEMISTER TOTAL		**14**
	Semester II		
	Public Health Nutrition	PubH621	2 (6 days)
	Reproductive Health and population studies	PubH626	4 (12 days)
	Health Promotion and Communication	PubH630	2 (6 days)
	Environmental Health	PubH635	2 (6 days)
	SEMISTER TOTAL		**10**
	Summer Term (semester III)		
	Research Methods: quantitative and qualitative	PubH631	3 (2+1) (9 days)
Year II	Thesis	PubH701	**6**
Total Credits hours			**33**

***** Pass marks in research work and thesis is rated as A=Excellent, B+=Very good, and B=good.

(PubH601) Epidemiology (4 Credit Hours):

Course Description: This course introduces the definitions, principles and concepts of epidemiology. It covers the tools commonly used in descriptive and analytic epidemiology. Designing epidemiological research appropriate for the health problems common in developing countries and demonstrating the practical application of the research methods and tools in public health screening programs and surveillance systems are covered in this course.

Learning Objectives: On accomplishment of this course, the student is expected to be able to:

Understand the definition and the general principles and concepts of epidemiology

Demonstrate the epidemiologic approach of defining and estimating the occurrence of morbidity, mortality and other health related phenomena in the human population;

Describe the types, strengths and limitations of epidemiological study designs;

Understand the importance of the screening and diagnostic tests and the concepts of validity and reliability

Be familiar with the interpretation of epidemiologic information

Demonstrate the application of epidemiologic principles to the investigation and management of epidemics and disease surveillance

Carry out the planning and conducting of epidemiological studies

Course Content

Chapter One: Introduction to epidemiology

- 1.1. Definition of epidemiology
- 1.2. History of Epidemiology
- 1.3. Scope of Epidemiology
- 1.4. Uses of Epidemiological studies

Chapter Two: Fundamental Assumptions in Epidemiology

Chapter Three: Major Epidemiologic approaches

Chapter Four: Epidemiological Measures

- 4.1. Morbidity rates (prevalence and incidence)
- 4.2. Mortality rates (crude, specific and standardized rates)

Chapter Five: Epidemiologic study designs

5.1. Descriptive and analytic studies

Chapter Six: Measures of Association

6.1. Odds ratio, relative risk, attributable risk, population attributable risk, etc.

Chapter Seven: Evaluation of evidence and judgment of causality

Chapter Eight: Assessment of chance ,bias and confounding, Bradford-Hill Criteria

Chapter Nine: Screening

9.1. Criteria for screening

9.2. Evaluation of screening tests

Chapter Ten: Infectious disease epidemiology

10.1. Transmission, transmission probability

10.2. Approaches to outbreak investigation

10.3. Outbreak characterization and control

Chapter Eleven: Principles of surveillance

11.1. Types, uses and evaluation of surveillance

Teaching and Learning Methods:

Interactive lecture

Exercises, case studies and assignments

Teaching-Learning Materials

AV aids (LCD and computer or Overhead projector and transparencies, writing board and marker or chalk)

Handouts of lecture materials

Assessment Methods

Formative assessment

Exercises and assignments

Summative assessment

Written exam

References:

- Barker, D.J.P. & Hall, A.J. Practical Epidemiology 1991
- Beaglehole, R. Bonita, R. & Kjellston T. Basic Epidemiology 2000(updated) WHO, Geneva

- Last, J.M. A dictionary of epidemiology 3rd edition 1995 Oxford University Press, Oxford
- Lilienfeld, D.E. Stolly, P.D. Foundation of Epidemiology 3rd edition 1994, Oxford University Press, Oxford.
- Rebecca G., Knapp M., Clinton Miller III. Clinical epidemiology and Biostatistics 1992.
- Hennekens CH, Buring JE. *Epidemiolgy in Medicine*, Toronto: Little, Brown and CO.,1987
- Lilienfeld, D.E. Stolly, P.D. Foundation of Epidemiology 3rd edition 1994, Oxford University Press, Oxford.
- Mausner, J.S., Kramer, S. Epidemiology an introductory text 1985, Philadelphia, London, Toronto, Mexico city, Rio de Janerio, Sydney, Tokyo.
- Rothman K, Greenland S. *Modern Epidemiology*. Philadelphia: Lippincott-Raven, 1998
- Teutsch S.M. & Churchill R.E. Principles and practice of public health Surveillance 2nd edition, oxford University press; 2000.
- Fletcher RH, Fletcher SW, Wagner: Clinical Epidemiology: The Essentials. 3 rd edition. Williams & Wilkins, Baltimore MD, 1996.
- Last, JM, Abramson JH. *A Dictionary to epidemiology* New York: Oxford University Press, 2000;

(PubH605) Biostatistics (4 Credit Hours)

Course Description: This course covers both descriptive and intermediate level statistics for public health. The descriptive statistics deals with frequency distribution, measures of central tendency and variability; probability and probability distributions; sampling and sampling distributions; statistical estimation; hypothesis testing and sample size determination. It also covers demographic and health services statistics including admission rate, discharge rate, average length of stay, bed occupancy rate, and turnover rate. The intermediate advance course deals with statistical methods that help understand relations between two or more variables. The techniques to be covered in this course include analysis of categorical data from epidemiological studies, correlation analysis, regression analysis, analysis of variance and survival Analysis.

Learning Objectives: At the end of the course students will be able to:

Discuss the role of statistics in health science and explain the main uses of statistical methods in the broader field of health care;

Describe methods of collection, recording, coding and handling data;

Calculate measures of central tendency and dispersion and present data in the form of tables, graphs etc;

Identify and make use of data from existing health records;

Apply different techniques of sampling;

Explain the context and meaning of statistical estimation and statistical significance.

Course Content:

Chapter One: Descriptive Statistics:

1.1. Methods of data Collection;

1.2. Types of Scales of Measurement;

1.3. Frequency distributions (absolute, relative, cumulative);

1.4. Diagrammatic Representations: Bar graph, Histogram, Frequency polygon, Ogive curve, Pie chart, Box and Whisker plot, Line graph, Scatter diagram;

1.5. Measures of Central tendency: Mean, Median, Mode, Geometric mean, Harmonic mean, Weighted mean; Quartiles and Percentiles;

1.6. Measures of Variability: Range, Inter-quartile range, Quartile deviation, Coefficient of quartile deviation, Mean deviation, Variance, Standard deviation, Coefficient of variation.

Chapter Two: Probability and Probability Distributions:

2.1. Independent events, Mutually exclusive events;

2.2. Classical definition of probability, Conditional probability;

2.3. Probability Distributions (Discrete & Continuous): the Binomial distribution, the

2.4. Normal distribution, the Poison distribution.

Chapter Three: Sampling and Sampling Distributions:

3.1. Sampling theory in public health;

3.2. Random numbers and their uses;

3.3. Types of sampling (probability (simple random, systematic, stratified random,

cluster, multi-stage sampling) and non probability sampling); Sampling distribution of the mean.

Chapter Four: Statistical Estimation:

4.1. Biased and Unbiased estimates;

4.2. Point and interval estimates;

4.3. C.I. for a single population mean,

4.4. C.I. for the difference between two Independent population means;

4.5. Paired Samples C.I. for the difference between two population means,

4.6. C.I. for a single population proportion,

4.7. C.I. for the difference between two population proportions.

Chapter Five: Hypothesis Testing: Hypothesis (Null & Alternative);

5.1. Steps involved in testing a hypothesis;
5.2. Type I and Type II errors;
5.3. Critical region;
5.4. One- tailed vs. Two-tailed tests;
5.5. Test of hypothesis about a single population mean,
5.6. Test of hypothesis about the difference between two independent population means;
5.7. Test of hypothesis about paired difference of two population means,
5.8. Test of hypothesis about a single population proportion,
5.9. Test of hypothesis about the difference between two population proportions.

Chapter Six: Sample Size Determination

Teaching-Learning Methods
Interactive lecture
Exercises and assignments
Computer lab practices (Statistical soft wares such as Epi Info and SPSS)
Practice, coaching and feedback: developing research proposal, conducting research, data analysis, report writing and oral presentation
Portfolio
PRRE

Teaching-Learning Materials
AV aids (LCD and computer or Overhead projector and transparencies, writing board and marker or chalk)
Handouts of lecture materials
Logbooks for entry of community experience

Assessment Methods

Formative assessment

Exercises and assignments

Logbook and portfolio

Summative assessment

Final Examination

References:

- Aschengrau Ann and Seage GR. Essentials of Epidemiology in Public Health. 2nd Edition. 2007.
- Berhane Y. Lecture Notes: Principles of Epidemiology. Addis Continental Institute of Public Health. December 2007
- Susan Carr, Nigel Unwin and Tanja Pless-Mulloli. Introduction to Public Health and Epidemiology. Second Edition. Open University Press. 2007
- R Bonita, R Beaglehole, T Kjellstrom. Basic Epidemiology. 2nd Edition. World Health Organization. 2006
- N. Noah. Controlling Communicable Disease. Open University Press. 2006
- R. Bhopal. Concepts of Epidemiology: An integrated introduction to the ideas, theories, principles and methods of epidemiology. Oxford University Press. 2002.
- NM Mikanatha, R Lynfield, CA Van Beneden. Infectious Disease Surveillance. Fisrt Edition. Blackwell Publishing. 2007.
- L Bailey, K Vardulaki, J Langham and D Chandramohan. Introduction to Epidemiology. Open University Press. 2005
- KJ Rothman, S Greenland, TL Lash. Modern Epidemiology. 3rd Edition. 2008

(PubH611) Health Service management and Health Economics (4 Credit Hours)

Course Description: This course covers important issues in health services management including principles of management; the management process; management styles; planning, implementing and evaluating health Services and programs; strategic management; decision making; human resources management; managing organizational change, leadership, motivation, performance appraisal; and health management information system**.**

Learning Objectives: This is to enable course participants:

To gain an understanding of the development and current status of management theory, particularly as it relates to health;

To recognize a variety of leadership and management styles and to classify one's own style of leadership and management;

To understand the importance of and be able to critically appraise an organization's mission and goals;

To be able to conduct a strategic analysis and elaborate a health plan, including its objectives, strategic and operational plans, and a plan for strategic control of progress;

To understand key models and be able to use basic tools for management decision making;

To understand the concept of social responsibility and social responsiveness and to develop an sense of professional ethics in management;

To understand the key elements of organizational structure in order to select or modify organizational design to make it effective and appropriate to function;

To be able to conduct an environmental analysis and prepare a plan for managing the organizational environment;

To develop an understanding of organizational processes subsystems including coordination, authority, delegation, decentralization, organizational change, innovation, and organizational development;

To be able to manage human resources, including through development of skills in human resource planning, recruitment and selection, human resource development, supervision and performance, appraisal, and other aspects of personnel management;

Be familiar to the contribution that economics makes to the study of health and population policy;

Be able to formulate simple economic models to be applied to public health; and

Be able to understand economic analysis of public health programs.

Course Content:

Section I: Health Service Management:

Chapter One: Organizations and the need for management; The management process; Types of managers and managerial roles;

Chapter Two: Management Theory; Classical Management Theory; The Behavioral School; The Quantitative School[Planning Health Services and Programs;

Chapter Three: Planning and Strategic Management; Overview of Planning; Formal Planning processes; Strategy Implementation; Structure and strategy; Operationalization strategy; Strategies for Health Services;

Chapter Four: Decision Making; Models of Decision; Improving Decision Making;

Chapter Five: Organization for Health Management; Organizational Structure; Types of organizational structure; Coordination; Organizational Design; Direct action environment; Indirect action environment; Managing total action environment;

Chapter Six: Authority Delegation and decentralization; Authority power and influence; Delegation and job design; Decentralization;

Chapter Seven: Human Resource Management; Human resource planning; Recruitment and selection; Training and development; Supervision and performance appraisal; Promotion transfers and separation; The new human resource development strategy of Ethiopia;

Chapter Eight: Managing Organizational Change; Planning change; Organizational development; Managing creativity and innovation;

Chapter Nine: Leadership in Health Management; Motivation and Performances; Theories of Motivation; Improving Performances and job satisfaction; Groups and Committees;

Chapter Ten: Operationalizing Management; Operation's Management; Selecting /designing delivery systems; Operation planning and control;

Chapter Eleven: Logistic Supply and Management; Quality Control; Total Quality Management (TQM); Quality Assurance (QA) and improvement; Management Information System; MIS design; MIS Implementation.

Section II: Introductions to health economics

Chapter Twelve: Introduction to basic economics, the role of economics in public health, Models of demand for health care, Utilization and Issue of Coverage, Issues of equity in the provision of health care,

Chapter Thirteen: Methods of economic evaluation of health care programs, Health services cost analysis,

Chapter fourteen: Current Issues in Health Care Financing and related topics.

Teaching methodology: interactive Lectures (+ use of visual aids) and interactive class discussion); Group Work & Discussion; Exercises, Assignments and presentations in class;

Assessment Methods
Formative assessment
Exercises and assignments
Project works
Summative assessment
Final Examination

References:

- Leadership in Healthcare: Values at the Top (Management Series (Ann Arbor, Mich.) by Carson F. Dye (Author)
- Information Systems for Healthcare Management, Sixth Edition by Charles J. Austin (Author), Stuart B. Boxerman (Author)
- Human Resources in Healthcare: Managing for Success, Second Edition by Bruce Fried (Editor), Myron D. Fottler (Editor), James A. Johnson (Editor)
- Introduction to Health Services Management by S. W. Booyens, H S Meij - Medical - Juta Academic (2004) - Paperback - 415 pages
- Health Care Service Management by Marie Eloïse Muller, Marie Muller, Karien Jooste, Marthie Bezuidenhout - Medical - Juta Academic (2006) - Paperback - 562 pages
- Essentials of Human Resource Management by Myron D. Fottler, S. Robert Hernandez, Charles L. Joiner - Business & Economics - Delmar Publishers (1997) - Hardback - 338 pages
- Strategic Management of the Health Care Supply Chain by Larry R. Smeltzer, Eugene Stewart Schneller - Medical - Jossey-Bass (2006) - Hardback - 305 pages
- Health Care Financial Management for Nurse Managers by Janne Dunham-Taylor, Joseph Z. Pinczuk - Medical - Jones and Bartlett Publishers (2006) - Paperback - 896 pages

- Management of Hospitals and Health Services by Rockwell Schulz, Alton C. Johnson - Medical - Beard Books (2003) - Paperback - 330 pages
- How to Build a Thriving Fee-for-service Practice by Laurie Kolt - Medical - Academic (1999) - Paperback - 258 pages
- Monitoring, evaluating, planning health services by EURO Working Group "Operational Research Applied to Health Services." Meeting, V. Deangelis, N. Ricciardi, G. Storchi - Health & Fitness - World Scientific (1999) - Hardback - 271 pages
- Management Principles for Health Professionals by Joan Gratto Liebler, Charles R. McConnell - Medical - Jones and Bartlett (2007) - Paperback - 552 pages
- Epidemiology in Health Services Management by G. E. Alan Dever, Francois Champagne - Medical - Aspen Systems Corp. (1984) - Hardback - 399 pages
- Innovations in health service delivery by Alexander S. Preker, April Harding - Medical - World Bank (2003) - Paperback - 618 pages
- Collaborative Management in Health Care by Martin P. Charns, Laura J. Smith Tewksbury - Health & Fitness - Jossey-Bass (1992) - Hardback - 321 pages
- Becoming an Effective Health Care Manager by Len Sperry - Medical - Health Professions Press (2003) - Paperback - 289 pages
- Management of organizational behavior: Utilizing human resources, 7th edition, by Hersey p., Blanchard K.H. and Johnson D.E. Prentice Hall (1996).
- Managing Health Service Organization and Systems, 4th edition (2003), By Beaufort B. Longest, Jr., Jonathon S. Rackish, Kurt Darr, Hamilton Printing Company, Rensselaer, New York.
- An Introduction to Planning in Developing Countries, 2nd edition, (1999), By Andrew Green, Oxford P. Press, London.
- Health Economics Research in Developing Countries. by Mills, A., and K. Lee, Editors. Oxford, England; New York, NY: Oxford University Press, 1993.
- Reforming Markets in Health Care: An Economic Perspective (State of Health Series). By Smith, P.C., Editor. Buckingham, England; Philadelphia, PA: Open University Press, 2000.
- Methods for the Economic Evaluation of Health Care Programmes (Third Edition) Contributors: Michael F. Drummond, Mark J. Sculpher, George W. Torrance, Bernie J. O'Brien, and Greg L. Stoddart

(PubH615) Public Health Matters (2 Credit Hours)

Course Description: This course will introduce students to the discipline of public health with an overview of the basic concepts and core functions of public health practice, the scope of applications, and the variety of service organizations (both public and private) that shape public health. It also examines the philosophy, purpose, history, functions, evidence based public health, different approaches in public health, tools, activities and results of public health practice at the international, national, state, and community levels. The course also deals with the common public health problems of developing countries and current global health issues.

Learning Objectives: the principal objectives of the course include enabling participants:

Review the historical development and the various components of the discipline of public health;

Appreciate the unique characteristics of public health practice as a social enterprise;

Conceptualize public policy implications of various approaches to public health issues and problems;

Understand and apply the techniques assessing public health status of a community or population group, including the determinants of health and illness, factors contributing to health promotion and disease prevention, and factors influencing the use of health services:

Identify available resources and major ethical, legal and enforcement constraints of important public health issues and problems

Get familiarized with important and contemporarily emerging public health problems and issues and approaches and constraints to addressing those problems and issues;

An important over-arching objective is, however, to encourage the course participants to think independently and critically about the issues discussed in the class, rather than assuming the role of passive recipients of factual information.

Course contents

Chapter One: Introduction to public health

1.1 Definition of health, community, community health, public health, global health History of public health
1.2 Function of public health
1.3 Important features of public health
1.4 Evidence based public health

Chapter Two: Approaches in public health

2.1 vertical vs. integrated/horizontal programs
2.2 Control, elimination, and eradication
2.3 Determinants of health
2.4 Health Transitions (Demographic, Epidemiologic, Nutrition ….)
2.5 Public health ethics
2.6 Emerging health issues
2.7 Climate change and health
2.8 War and conflict
2.9 Globalization
2.10 Emerging and remerging infectious diseases
2.11 Global cooperation in health
2.12 Global cooperation in international health
2.13 Global actors in Health

Chapter Three: Prevention and control of public health importance diseases in Ethiopia (tuberculosis, malaria, HIV/AIDS, EPI target diseases and others)

3.1 Introduction to the history, philosophy and core functions of public health;
3.2 Models of diseases causation;
3.3 The global context of public health;
3.4 Ethical issues and other challenges to public health;
3.5 Community needs assessment and organizing public health programs;
3.6 Developing school health program; Public health nutrition; and
3.7 Contemporary issues and emerging public health problems.

Teaching Methods : lecture/seminar, group projects

Assessment Methods:

Formative assessment: presentations of progress reports; Project presentations; Group reports; Class participation;

Summative assessment: Final Examination

References:

- Ibsen, Henrik (1964). A Public Enemy in Ghosts and Other Plays, trans. Peter Watts, London: Penguin Books.

- Porter, Dorothy (1999). Health, Civilization, and the State: A History of Public Health from Ancient to Modern Times.
- You may purchase any of these materials from Matthews Medical Book Center.
- Fee, Elizabeth (1987). Disease and Discovery, The Johns Hopkins University Press.
- Porter, Dorothy (ed.), (1994). The History of Public Health and the Modern State.
- Rosen, George (1958, 1993). A History of Public Health, Expanded Edition, Baltimore: The Johns Hopkins University Press.
- These readings are also available at the Matthews Johns Hopkins Medical Book Center. Because they are not required, the number of copies available will be limited.
- Brockington, C. Fraser (1956). A Short History of Public Health, London: J. & A. Churchill.
- Cartwright, Frederick F. (1977). A Social History of Medicine.
- Duffy, John (1990). The Sanitarians.
- Feierman, Steven and Janzen, John M. (eds.) (1992). The Social Bases of Health and Healing in Africa, Berkeley: Univ. California Press.
- Leslie, Charles (ed.) (1976). Asian Medical Systems, Berkeley: Univ. California Press.
- Leslie, Charles and Young, Allan (eds.) (1992). Paths to Asian Medical Knowledge, Berkeley: Univ. California Press.
- Porter, Roy (1997). The Greatest Benefit to Mankind.

(PubH621) Public Health Nutrition (2 Cr.hr)

Course Description: This is a course to public health nutrition relevant to developing countries. It addresses issues such as common nutritional disorders, assessment of nutritional status, the role of health sector in food and nutrition, food and nutrition policy, and nutritional surveillance.

Learning Objectives: The overall objective of the Applied Human Nutrition course is to enable graduate students acquire the necessary knowledge, skills and attitude towards identifying nutritional and related health problems of communities, and to coordinate the design and implementation of appropriate intervention measures.

Specifically, the course is intended to enable students to:

Understand and describe the complex, overlapping and multi-factorial ecology and aetiology of nutritional disorders in a community,

Assess the prevailing nutritional status of communities, and design appropriate corrective measures,

Identify and characterize nutritional problems of public health importance and the corresponding intervention strategies,

Design and conduct nutritional surveys and surveillance, describe the role of the health, agricultural and other sectors and the corresponding health, nutritional and other policies in preventing nutritional problems of a community at large.

Course Content:

Chapter One: Introduction to Human Nutrition;

Chapter Two: Ecology of Nutritional Disorders;

2.1 Etiology of Nutritional Disorders;

Chapter Three: Assessment of Nutritional Status; The Present Food and Nutrition Situation;

Chapter Four: The Role of the Health Sector in Food and Nutrition;

Chapter Five: Food and Nutrition Policy

Chapter Six: Nutritional requirements

Chapter Seven: Nutritional Surveillance; Nutritional Disorders of Public Health Importance; Nutrition and

Chapter Eight: Infection Interaction; Nutrition Intervention Programs; Nutrition and Economic Development;

Chapter Nine: Introduction to Nutritional Epidemiology

Teaching Methodology: Class-room lectures, term paper presentation and submission, as well as, field works/ visits will constitute the course.

Method of Assessment: Student evaluation will be based on the following components: Final examination, Term paper; and Assignments.

References:

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- Prayer J. Lecture note on Nutritional Epidemiology, 1996-97, London school of hygiene and tropical medicine.
- Garrow J.S. , JAMES W.P.T. Human Nutrition and dietetics, ninth ed. Pearson professional LTD, Aberdeen, 1996
- Dudek S.G. Nutrition Handbook for Nursing Practice, third ed., Lippincott, Newyork, 1997.
- ACC/SCN, The 4th report on the world nutrition situation, Nutrition Throughout the life cycle, January 2000

- ACC/SCN, 5th Report on the World Nutrition Situation. Nutrition for Improved Development Outcomes ,March 2004
- FANTA , Strategies , policies , and Programs to improve the Nutrition of Women and Girls , January 2000
- WHO, Nutrition for health and development , a global agenda for combating malnutrition , 2000
- UN, Ending malnutrition by the year 2020 An agenda for change in the Millennium Executive summary ,2000
- WHO, Complementary Feeding of Young Children in developing countries, extensive review , Geneva , Switzerland ,1998

(PubH626) Reproductive Health and Population Studies (4 Cr. hr.)

Course Description: This course introduces concepts and practices of reproductive health. It provides an overview of definitions, theories, determinants and measurement of health and disease in women, children and adolescents. The initiatives to improve reproductive and sexual health, the survival of mothers, newborns and children will be reviewed.

Learning Objectives:

At the end of the course the students are expected to:

Describe Reproductive Health

Understand the objectives, approaches and components reproductive health care

Be familiar with the definitions and relationships between gender and reproductive health

Be able to compute the magnitude and measurement of maternal mortality

Discuss the causes of maternal health problems

Understand Intervention for Safe motherhood

Master Organization of Reproductive Health services

Describe the basic concepts and theories in demography

Describe the main types of demographic measures

Calculate measures of fertility, mortality and migration

Compare fertility, mortality and migration across and between populations

Demonstrate the impact of vital rates on population size and structure

Course Content:

Chapter One: Historical Development and Definition of Reproductive Health

Chapter Two: Approaches and components of Reproductive Health

Chapter Three: Gender and Reproductive Health

Chapter Four: Safe Motherhood

Chapter Five: Measuring reproductive health

Chapter Six: Organization of reproductive health services

Chapter Seven: Review of the main types of population measures: rate, probability, ratio

7.1 The Lexis diagram

Chapter Eight: The main measures of mortality (crude rate, age specific mortality rates, standardization, life tables)

Chapter Nine: Fertility and reproduction measures(General fertility, age specific fertility, Gross and Net reproduction

Chapter Ten: Migration and urbanization

Chapter Eleven: Population, health and development

Chapter Twelve: Population policies and programs

Chapter Thirteen: Demographic transition theory

Teaching methods: The course will include lectures, discussions, presentations by students and guest lecturers, case presentations and film show.

Method of Assessment:

Formative assessment: exercises, Group work and presentations and

Summative assessment: final examination

References:

- UN, Programme of Action of the International Conference on Population and Development, (ICPD), Cairo, September 1994.
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- WHO, making pregnancy safer, the critical roles of skilled attendants, a joint statement by WHO, ICM, & FIGO, WHO, Geneva, 2004.
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- Belachew T., Jira C.,Asres T. & et.al. Manual on Reproductive health, 2003.

(PubH630) Health Promotion and Communication (2 Cr.hr)

Course Description: This course deals with concepts and theories of social science and related fields that are relevant to health promotion in human population. Issues related to group and community health promotion practices will be covered. It also addresses ehavior change models and health communication strategies.

Learning Objectives: At the end of the course the student will be able to:

Describe the interrelationship between behavioral sciences and community medicine;

Define major terms and concepts related to behavioral sciences;

Describe the main determinants of health behavior;

Explain what group dynamics is and how it can be applied in practical setting;

Describe and explain the concepts of community organization;

Describe and explain the theories of communication, communication process; factors influencing effective communication process;

Explain the various methods employed in health education;

Describe and use the various behavior-change models and to determine how these models can be used in the management of health education programs;

Explore the process of planning, implementation, monitoring and evaluation in health education and will be able to translate the theoretical skills into practice;

Describe and perform the process of planning, implementation and evaluation of health personnel training programs;

List the reasons why people do resist changing their behaviours;

Describe the concept of social marketing in health; and

Describe and practice the various research methods in behavioural sciences

Course Content: -

Chapter One: Concepts of Behavioural Sciences as applied in Health Education

1.1. Interrelationship between behavioural sciences and community medicine

1.2. Definitions of major concepts

1.3. Determinants of Health Behaviour

1.4. Group Dynamics; and Concept of Community Organization

Chapter Two: Principles and Practice of Health Education

2.1. Introduction : Definition of Health Education & its elaboration

2.2. Aims & Principles of Health Education

2.3. Communication; Education and Educational Methods

2.4. Health Behaviour Models

2.5. Planning Behaviour Change; Evaluation of Behavior Change

2.6. Resistance to Change in Health Behavior

2.7. Social Marketing in health

Chapter Three: Research Methods in Behavioral Sciences – Qualitative Studies.

Teaching Methodology: Lectures and interactive class discussion; Group Work & Discussion; Exercises, and Assignments and presentations in class.

Evaluation: Mid-course test; Progressive assessment; Class participation; Presentation of assignments; Final examination.

References:

- Lawrence W. Green Marshall W. Kreuter. Health Promotion Planning: An Educational and Ecological Approach: Third ed 1999
- Bonni C.Hodges. Assessment and Planning in health programs, Jones and Bartlett Publishers, London. 2005

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- Essential of public health communication Claudia Parvanta. David E nelson etal
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- Karen G., Barbara K. & Frances M. Health Behavior and Health Education: Theory, Research and Practice. 3rd edition 2002
- Worl Health Organization. A guide to developing Knowledge, Attitude and Practice Surveys. Advocacy, communicationa and social mobilization for TB control.WHO Swizerland 2008.
- Family Health International. Behavioral Survey Surveillence. Guidelines for repeated behavioral surveys in populations at risk of HIV. Family Health International 2000.

(PubH635) Environmental Health (2 Cr.hr)

Course Description: This course introduces students with a variety of issues in environmental health. The course provided conceptual understanding of issues related to vector control, provision of safe water supply, waste management, food hygiene, occupational health, industrial noise and its control, global environmental problems related to health, air pollution, water pollution, water development and health, population, environment & development, housing and health, and environmental safety.

Learning Objectives: At the end of the course, students should have gained the knowledge and skills needed to:

Recognize the general environmental factors (physical, chemical, biological, etc.) which affect the comfort, health, and disease status of an individual, a family, or a community at large;

Recognize the basic environmental health problems in existence in Today's World, with particular reference to the Ethiopian situation;

Identify the causes and potential health effects associated with various environmental problems;

Identify possible intervention approaches to protect, promote, and maintain environmental conditions which are favorable to human health and well being;

Recognize and understand the issues and difficulties faced when conducting environmental health research;

Plan, implement, and evaluate major environmental health programs in the actual working place.

Course contents: The course includes both fundamentals of environmental health and advanced topics on environmental pollution:

Chapter One: Introduction and definitions: course introduction, basic environmental health term definitions;

Chapter Two: Vector control: vector definition, public health importance, factors affecting vector borne diseases, public health important vectors distribution in Ethiopia, vector control principles, challenges of vector control;

Chapter Three: Provision of safe water supply: Importance of water, definitions, country status, occurrence of water, water related diseases description, objectives of water supply,

characteristics of safe water supply, surface water and its protection, ground water and its protection, rain water and its protection, small scale water supply system, municipal water supply system, water quality control and surveillance, drinking water standards;

Chapter Four: Human waste management:

4.1. definitions, global and country status, objectives, health importance, excreta related diseases transmission mechanisms, choice of excreta disposal system, small scale human waste management systems, description of the commonly used dry pit and VIP latrines, sewage management system description, final disposal methods, standard requirements for final disposal, quality control for final disposal;

4.2. Waste management: Municipal and rural solid waste management: definitions, types and characteristics of solid waste, classification, health importance, storage, collection, transportation, final disposal, solid waste management hazards and their problems;

4.3. Medical waste management: definitions, types, health importance, storage, collection, disposal systems, health hazards;

4.4. Hazardous waste management: definitions, classification, health importance, examples of episodes, control methods, waste management hierarchy, treatment options, disposal methods, selected hazardous waste material list;

Chapter Five: Food hygiene: definitions, health importance, protection of food from adulteration and spoilage, food borne diseases and their transmission mechanisms and control methods, milk hygiene and its public health importance, meat hygiene and its public health importance, mass catering sanitation and its public health importance;

Chapter Six:

6.1. Occupational health: Principles of industrial hygiene: definition, basic elements of occupational hygiene related to recognition, evaluation and control; working environmental hazards descriptions, exposure limit criteria, controlling the industrial environment, role of the professional;

6.2. Industrial Noise and its control: term definition, classification, physiology of hearing, noise measurement methods, sound pressure levels of commonly observed noise, adverse health effects, noise control, noise evaluation and standards;

Chapter Seven: Global environmental health problems: territorial based concerns, global warming: definition, causes, pollutants, health effects; ozone depletion: definition, causes, pollutants, health effects; loss of biodiversity: definition, levels of biodiversity, health effects; deforestation and its health effects;

Chapter Eight: Air pollution:

8.1 Ambient air pollution and its impact on health: function of air, air composition, definitions, air pollutants classification, sources of air pollution, effects of air pollution, air pollution control strategies; air quality standard;

8.2. Indoor air pollution and its impact on health: problem status, health importance, classification of indoor air pollutants, hierarchy of fuel efficiency, prevention and control of indoor air pollution, indoor air quality standards;

Chapter Nine: Water pollution: definitions, pollutant types, sources and mechanisms of water pollution, health effects, productivity of aquatic system, underground water pollution, surface water quality standards;

Chapter Ten: Water development and health: country status, water development components, possible intervention in water development, irrigation development and related vectors and diseases; water development impact control approaches; evaluation approaches;

Chapter Eleven: Population, environment & development: definitions, development links to the environment, urbanization links to the environment, poverty links to the environment, challenges for developed and developing nations;

Chapter Twelve: Housing and health: global and country status, health importance, definitions, basic housing principles, categories/classification of housing, housing standards, housing improvement programs, housing management;

Chapter Thirteen: Radiational health and safety: definition, sources of radiation, radiation exposure levels by source, biological effects, radiation monitoring and evaluation, radiation prevention and control, role of regulatory bodies in radiation control, radioactive waste material management;

Teaching and learning methods: Class room lectures with teaching aids; Relevant field visits focused on waste management, water supply, food hygiene, and occupational hygiene; Term paper presentation; Homework assignments;

Method of Assessment:

Formative assessment: assignments; Class room presentation; Attendance, and

Summative assessment: final examination.

References:

- Blumenthal, D. S., and Ruttenber, A. J. (1995). *Introduction to environmental health.* Second Edition. New York: Springer.
- Lippmann, M. (Ed.). (1992). *Environmental toxicants: Human exposures and their health effects.* New York: Van Nostrand Reinhold.
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- Oser BL: Toxicology then and now. Regul toxicolpharmacol, 1987.
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(PubH654) Research Methods: Quantitative and Qualitative (3 Cr.hr)

Course Description: This course introduces the basic concepts and the process of undertaking research from inception to write up. Students are expected to come to this course with well written inception note in the research area they intend to undertake as part of the requirement for MPH in order to benefit fully from the course. The course provides skills in doing literature review, choosing methodology appropriate to the research questions, planning field work for research, and familiarizes students with ethical issues and guidelines relevant to health research. Students are expected to have an approved research proposal by the end of the course.

Qualitative: The basic course in qualitative method covers the premises of qualitative methods, principles of qualitative data collection methods and tools, first level analysis of qualitative data and utilization of qualitative methods. This course also provides a deeper understanding of qualitative methods and focus on more advanced qualitative data analysis techniques and the use of computer in qualitative data analysis.

Course content:

Chapter One: Principles and characteristics of qualitative research.
Chapter Two: Application of qualitative research in public health.
Chapter Three: Qualitative research approaches: designing and collecting relevant data.
Chapter Four: Approaches to qualitative data analysis
Chapter Five: Assessing the quality of qualitative research.

Teaching Learning Method: Lectures, case studies and in-class practical exercises are methods of instruction. Students are expected to study independently course materials and do exercises in their assigned group.

Method of Assessment:

Formative assessment (individual and group assignments)

Summative assessment: final examination and written research proposal.

References:

- Research Methods: A Process of Inquiry. Allyn and Bacon; Boston:-p.cm.
- Handbook of Research Methods in Health. Ann Bowling and Shah Ebrahim (2005)
- Health Research Methodology: A guide for Training in Research Methods (Western Pacific Regional Publication). Word Health Organization
- Health Services Research Methods: A Guide to Best Practice. John Brazeir, Ray Fitzpatrick, Bamby, and Deborah Ashby (1998)

- Research in Health Care Setting (Applied Social Research Methods). Kathlee E. Grady and Barbara Studler Wallston (Paperback- Dec 19, 1998)
- Designing and Conducting: Health Systems Research Projects. *Corlien M. Varkevisser Indra Pathmanathan, Ann Brownlee.* KIT Publishers, Amsterdam, International Development Research Centre in association with WHO Regional Office for Africa

(PubH655) Master's Thesis (Equivalent to 6 Cr. Hr.

Course Description: The thesis work is a supervised research undertaking on relevant health and health related issues. It can be based on research project that collects fresh data or accumulated over time, a case study, or literature review depending on the student's interest and availability of resources. The course provides the student with the opportunity to demonstrate and apply the knowledge and skills acquired during the coursework. Successful completion of all the coursework is a prerequisite to undertake the thesis work.

Course Content:

Chapter one Collection data for thesis research; Field research activities; Desk study for review research; Data entry and clean up

Chapter Two: Analysis of thesis research data; write up of thesis research and residency report.

Method of Assessment: progressive assessment and written thesis defended in the presence of internal and external examiners.

References: all references for other courses and Journals relevant to research title

Annex:

Academic staff profile of the department of public health:

AMU- Department of Public Health and Partner Departments Staff Academic Rank

Sr. no.	Specialty	Available staff		Total Staff	Remark
		Within dept.	Out of Dept.		
1	General Public Health	3	1	4	1 on study, 1 PhD fellow
2	Reproductive Health	1	2	3	1 on study
3	Epidemiology	1		1	1 on study
4	Epidemiology and Biostatistics	5		2	1 on study
5	Health Promotion	1		1	
6	Health Service Management	1		1	
7	Monitoring and Evaluation	1		1	
8	Applied Nutrition	1		1	
9	Biostatistics/ Statisticians	0	5	5	
10	Global Health	1		1	
11	Community Health	1		1	
12	Tropical Infectious disease	1		1	
	Total	**14**	**8**	**22**	**5**

AMU- Department of Public Health and Partner Departments Staff Academic Rank

Sr.no.	**Academic Rank**	**Within Dept.**	**Out of Dept.**	**Total**
1	Lecturer	14	8	22
2	Assistant Professor			
3	Associate Professor			
4	Professor (honorary Guest)	1		1
	Total	**15**	**8**	**23**

Material and Human Resource Requirements:

	Items	Quantity	Remark
	Teaching Materials		
1	LCD projector	04	
2	Overhead projector	04	
3	Laptop computers	05	
4	Desk top computers	35	
5	White screen (LCD Screen)	02	
6	White board	02	
7	Green Board	02	
8	Graduate reference materials (books)	250	
	Physical setup		
1	Graduate Library	01	Rooms
2	Documentation and Periodicals room	01	Rooms
3	Smart Lecture rooms	02	Rooms
4	Resource Center (Internet and Computer center)	01	Rooms
5	MPH Coordinating Office	05	Rooms
Stationary Materials			
1	Paper for print	50	Pack
2	Duplicating Paper	100	Pack
3	Flip Charts	20	
4	Pen (blue/black/red)	05	
5	Markers (Permanent)	50	Pack
6	White board markets (non-permanent)	25	Pack
7	Transparency papers	10	Pack
8	File suspension	100	
9	Note Pads	50	
10	Compact disc (CD-R and /or CD-WR)	100	
11	Registration books	10	
12	Chalk	25	Pack
Office Equipment			
1	Managerial chair	10	
2	Secretary Chair	12	
3	Office Tables	10	
4	Guest Chairs (three in one)	02	
5	Computer Desk	35	

6	Paper Tray	10	
7	File Cabinet	02	
8	Shelves	02	
9	Refrigerator	01	
10	File Folders	20	
11	Paper cutter (A3 and A4 size)	02	
12	Stapler (small and large size)	10 (02)	Small (large)
13	Puncher (small and large size)	02 (02)	Small (large)
14	Flunnel board (medium size)	02	
15	Office curtains	……	
16	Floor Plastic	…..	
17	Printers	01	
18	Photo Copier	01	
19	Scanner	01	
20	Socket dividers	35	
21	Stabilizers	20	
22	UPS battery	35	
23	Copy holders	02	
24	Office ventilators	10	

Human Resource Requirements:

	Human Resource	**Number**	**Benefits**	**Remarks**
	MPH Program Coordinator	1	Regular Monthly top up	
	Secretary	1	Regular Monthly salary	
	Office Assistant	1	Regular Monthly salary	
	Course coordinators	10	Monthly top up	On course offering period

- The amount of monthly top ups will be determined by the respective responsible bodies.

Department organogram:

Currently the department of public health in collaboration with Addis continental Institute of Public Health has the capacity to provide General MPH program. The MPH program will be run under the department of public health, where the program will have specific coordinator, secretary and course coordinators who will be active during their course offering period. The departments will subsequently launch tracks of specializations based on available managerial, technical and human resource capacities.

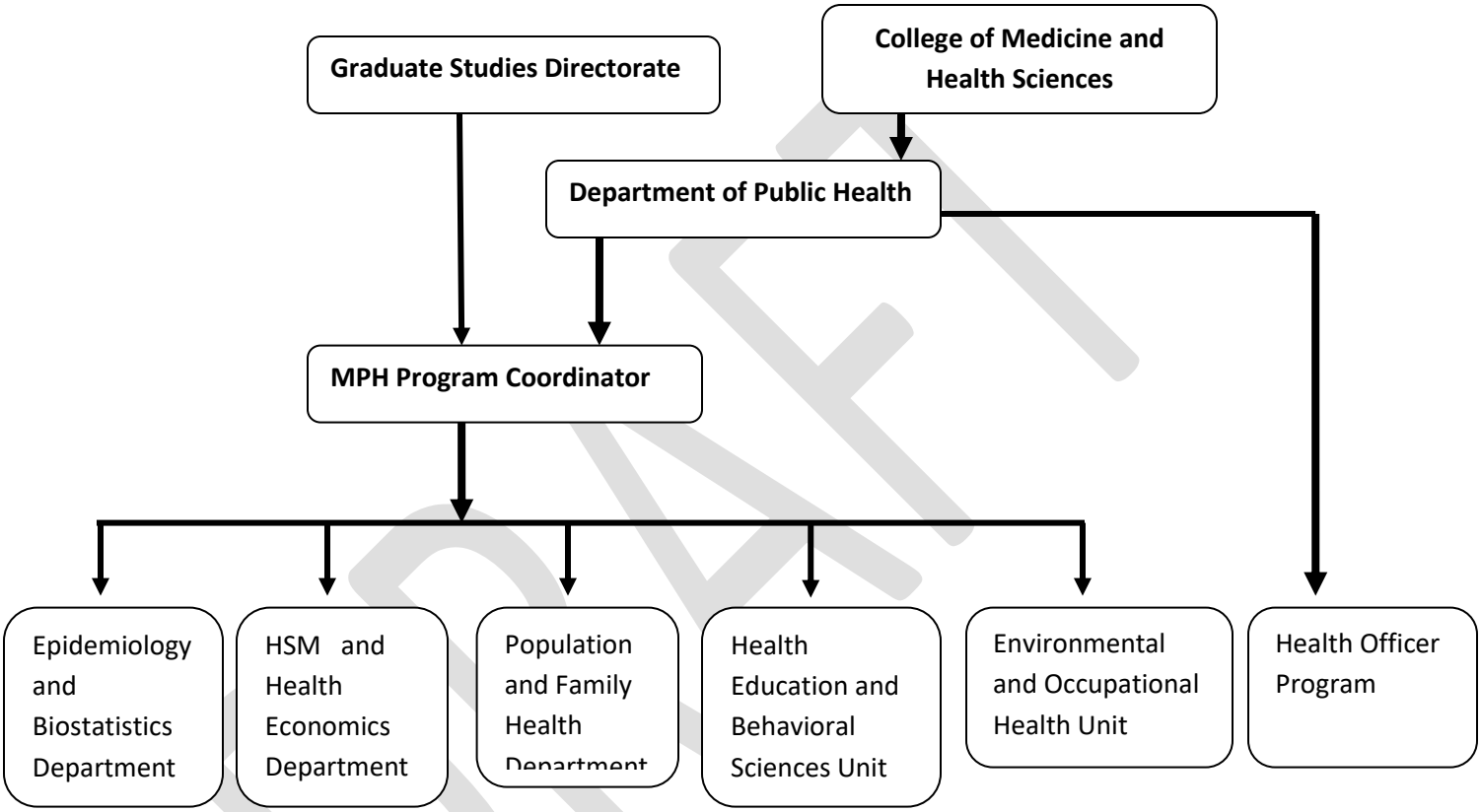

Fig.1 organogram of the department of public health, Arba Minch University

Program Administration:

The department is run under the department of public health, however the program will have responsible coordinator and each units will have course coordinators. The graduate study program directly reports to the university graduate study programs directorate office and copy to the college of medicine and health sciences. The program coordinator will supervise each and every activity of the graduate program and in collaboration with course coordinators and unit representatives. The MPH program coordinator will have an assistant secretary. A monthly top up will be provided to the MPH program coordinator. Up on the delivery of a course a monthly top up will be provided to the respected course coordinators for the specified course offering period. The department of public health and ACIPH will manage the ongoing academic activities of the program.

Payment Rate and Cost Breakdown for Each Semester

Year I	**Course**	**Cr. Hr.**	**Payment rate**	**Total payable**
Semester I	Epidemiology	4	450	1800
	Biostatistics	4	450	1800
	Health Service management and health Economics	4	450	1800
	Public Health Matters	2	450	900
Semester Total		**14**	**450**	**6300**
Semester II				
	Public Health Nutrition	2	450	900
	Reproductive Health and population studies	4	450	900
	Health Promotion and Communication	2	450	900
	Environmental Health	2	450	900
Semester Total		**10**	**450**	**4500**
Summer/semester III	Research Methods: quantitative and qualitative	3	450	1350
Second Year	Master's Thesis	6		5,000
Grand Total		**33**		**17,150**

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1. Gondar University School of Public Health. Curriculum for Public Health. Available online at: http://www.uog.edu.et/www/ Accessed on November 20 2011
2. Jimma University School of public health post graduate program description: http://www.ju.edu.et/cphms/
3. School of Public Health and Health Services Department of Prevention and Community Health. Master of Public Health and Graduate Certificate Public Health Communication and Marketing 2010-2011 Available online at: http://www.gwumc.edu/sphhs/
4. *A Mesdaghinia, H Keshavarz, A Djazayery, S Nedjat, A Salehi.* The Master of Public Health (MPH) Program at the School of Public Health, Tehran University of Medical Sciences, Iran. *Iranian J Publ Health, Vol. 38, Suppl. 1, 2009, pp.32-33 A supplementary Issue on: Iran's Achievements in Health, Three Decades after the Islamic Revolution*
5. MPH Curriculum Requirements. Available Online at: http://fhs.aub.edu.lb accessed on: November 26
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7. University of Liverpool. Master of public health program outline
8. Public health programs, college of PHHP. Available online at: http://www.mph.ufl.edu/programs/masterspublichealth.html accessed on 18th November 2011