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Public Health Digest

Acknowledgement and Calls for Articles and Abstracts.

The producers of this digest would like to thank the US Centers for Disease Control and Prevention for funding this publication. We would also like to invite readers to send their research works and other articles for publication in the next issue. Comments and views from researchers, trainers and service providers are particularly encouraged.

The Executive Board of EPHA

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Digest Editors Note

People living in developed countries live in an information rich environment. A rich variety of information is available daily from newspapers, magazines, books, government publications, technical and scholarly journals, radio, and television. Information is further available from friends and colleagues, no matter whether they are local or distant. Reliable telephone systems provide relatively economical voice communication between most or all parts of the country. Emerging electronic mail systems connect professionals of many kinds together in an effective manner for passing written messages; such systems are increasing to cover larger subscriber bases and larger geographic coverage.

Information poverty is one of the more important and insidious obstacles in developing countries to effective exploitation of information processing and other types of technology. The lack of adequate information regarding developments in other countries and other environments is often not noticed; in the absence of new information, old techniques and procedures are continued without conscious knowledge of alternatives. And, while developing countries may not be hurt in absolute sense by lack of information, they are certainly negatively affected by any relative measure. The issue underlying information poverty is how to overcome it to provide a sufficient flow of information into developing country environments so that individuals and governments can make good choices from among realistic alternatives. There are a number of approaches that could assist countries in obtaining a richer and more up-to-date flow of relevant information for statistical data processing. They include: (1) stronger partnerships with national universities and similar organizations; (2) greater exploitation of both short and long term visits by experts from other countries; (3) effective sharing and exploitation of locally available technical skills and knowledge; (4) establishment of an informal statistical data processing newsletter; and (5) recognition of the importance of release time for continued on-the-job learning.

In this publication, the basic components of the Digest (HIV/AIDS, STI and TB) are maintained as usual because they are the major public health problems in particular and development hindrances in general. This publication starts with EPHA updates followed by research abstracts translated into Amharic from Journals. HIV/AIDS prevention, care and support highlights focusing on TB is presented. Glossaries as usual are given at the end of this Digest.

Objectives of this Digest

- Improve knowledge, and practices of public health professionals in the areas of HIV/AIDS, STIs and TB.
- Introduce latest research findings, best practices and success stories to the general public through public health practitioners, trainers, planners and researchers.
- Motivate health workers to engage themselves in operational studies through dissemination of abstracts from studies conducted by health professionals working in health units and training institutions.

Target Audiences:

The target groups for the Digest are health professionals in general; and trainers in training institutions, public health practitioners at woreda health offices, in health centers and hospitals, in particular. This Digest will also be extended to non-health professionals who are interested on the subject on a demand-basis for free subscriptions.

Strategy:

Three to four thousand copies would be published quarterly. Distribution would follow the modalities of other EPHA publications. Regional, zonal and woreda offices, institutions of the MOH & HAPCO branch offices will also be used for distributing the Digest.

Readers of this Digest are invited to provide comments that need to be taken into account to improve the quality of the Digest. The editors of this Digest also want to thank in advance all concerned professionals who in one way or another extended their views, support and contributions to the realization of the Public Health Digest.
Training on Infection Prevention:
EPHA with the support of PEPFAR-Ethiopia initiated to implement infection prevention advocacy (IPA) program with the objective of preventing health care workers and their clients from health facilities acquired infection, particularly HIV infection during service provision. In line with this, EPHA in collaboration with the Ethiopian Medical Professional Association conducted a 5 days infection prevention training for health care providers. The training was conducted from December 10-14, 2007 for 23 Medical Doctors, of which 5 were females. The participants were from the Addis Ababa University, Psychiatry hospital and general practitioners from different hospitals in Addis Ababa.

Leadership in Strategic Information Training (LSIT):
Fifth round LSIT was conducted in collaboration with CDC Atlanta and School of Public Health of the Addis Ababa University from November 12-17, 2007 in Nazareth. A total of 15 regional HIV/AIDS managers and regional laboratory coordinators participated from the four regions. A participant from World Health Organization also participated in this particular module. As the part of the course, the participants were expected to produce monitoring and evaluation protocol per regional group & prepare report. Evaluation of the course by the participants was done at the end of the course and recommendation was given.

HIV/AIDS Mortality Surveillance:
EPHA established AIDS Mortality Surveillance Networking among the universities engaged in AIDS Mortality Surveillance and assigned a facilitator for the network from EPHA. Two meetings of the Networking conducted and developed protocol for joint operation of the project. EPHA continued providing financial & administrative supports to the Addis Ababa HIV/AIDS Mortality Surveillance project.

Expanding PMTCT Services:
Proposal for the survey that will be conducted as a pre intervention assessment for PMTCT program training needs and assessment of the quality of PMTCT services at the health institutions has already been prepared and submitted to EPHA for ethical clearance.

Health professionals working at the private health institutions was selected as a target population. Regular monthly meeting of the project coordinating committee was conducted. Five consultation meetings were conducted with collaboration of partner organizations to implement the project activities. Memorandum of Understanding (MOU) was signed between Ethiopian Public Health Association and Ethiopian Society of Obstetricians and Gynecologists (ESOG) for the expansion of Prevention of Mother to Child Transmission (PMTCT) services at the private Hospitals and special Maternal and Child Health (MCH) clinics. Project coordinator was hired for the day to day follow up of the activities.
Probability Proportion to Size

Simple random sampling technique
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(Information Utilization rate) As for the utilization rate, the rate of using the Internet for health-related information was found to be around 10-20%. The utilization rate of using the Internet for health-related information was found to be around 10-20%. The utilization rate of using the Internet for health-related information was found to be around 10-20%. The utilization rate of using the Internet for health-related information was found to be around 10-20%.

1. No significant differences were observed in the utilization rate between the two groups (ESHE and non-ESHE).
2. No significant differences were observed in the utilization rate between the two groups (ESHE and non-ESHE).
3. No significant differences were observed in the utilization rate between the two groups (ESHE and non-ESHE).

(Cross-sectional study) The study was conducted in 2005 and 2006. The study population consisted of 395 participants from 16 schools in the city of X/ Y. The results showed that the utilization rate of using the Internet for health-related information was higher in the ESHE group than in the non-ESHE group.

**Table 1**

<table>
<thead>
<tr>
<th>Group</th>
<th>Utilization Rate (%)</th>
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<tr>
<td>ESHE</td>
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<tr>
<td>Non-ESHE</td>
<td>5-10</td>
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</table>
Feedback

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<table>
<thead>
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<th>Nội dung</th>
<th>Hàm</th>
<th>Khi</th>
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<td>Hàm đầu</td>
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<tr>
<td>3</td>
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<td>12</td>
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<tr>
<td>8</td>
<td>37</td>
<td>45</td>
<td>Hàm đầu</td>
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Phân tích phân loại đa biến (Multiple Logistic regression) 

1. Phân tích phân loại đa biến

2. Phân tích phân loại đa biến

3. Phân tích phân loại đa biến

4. Phân tích phân loại đa biến

5. Phân tích phân loại đa biến
3. **Stratified Sampling**

Stratified sampling is a method of sampling in which the population is divided into mutually exclusive and collectively exhaustive subgroups (strata) and random samples are then drawn from each stratum. This method is often used when the population is heterogeneous and it is important to ensure that all subgroups are adequately represented in the sample.

In the context of the study, stratified sampling was used to ensure that the sample was representative of the population with respect to certain characteristics. The population was divided into strata based on these characteristics, and random samples were then drawn from each stratum.

The stratification was based on factors such as age, gender, and geographical location. This helped to ensure that the sample was representative of the population in terms of these variables.

**Results:***

The results of the stratified sampling showed that the sample was representative of the population in terms of the characteristics used for stratification. The sample proportions were similar to those found in the population, indicating that the sampling method was effective.

**Conclusion:***

Stratified sampling is a useful method for ensuring that a sample is representative of a heterogeneous population. The results of the study showed that this method was effective in the context of the research.

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Highlights on Prevention, Care and Support

Aggressive TB control can yield big economic gains, says new study (4)

A new World Bank research report found that 22 countries with the world’s highest numbers of TB cases could earn significantly more than they spend on TB diagnosis and treatment if they signed onto a global plan to sharply reduce the numbers of TB-related deaths. Highly affected African countries could gain up to nine times their investments in TB control. The study also warns about the need to step up TB control worldwide with the growing emergence of multi-drug-resistant TB (MDR-TB) and extensively drug-resistant TB (XDR-TB) in southern Africa, Eastern Europe and Central Asia.

The report said that despite recent gains in fighting TB, there were still 8.8 million new cases and 1.6 million deaths from the disease in 2005. Without treatment, two thirds of smear-positive cases die within five to eight years, with most dying within 18 months of being infected.

According to the study-"The economic benefit of global investments in tuberculosis control"- the economic impact of TB deaths and the benefits of TB control among the 22 high-burden countries are greatest in China and India, where the combination of growing incomes and a relatively high number of TB deaths translates into a significant economic effect.
The study, which was commissioned by the World Bank on behalf of the Stop TB Partnership and funded by the Bill and Melinda Gates Foundation, has attracted considerable interest from international health and development agencies, along with research and civil society groups, which want more aggressive TB control worldwide. The disease is the leading infectious killer of adults after HIV/AIDS.

“‘This report set out to test whether the economic benefits of TB control are greater than the costs. It turns out that likely benefits are of impressive magnitude,’” said Dr Jorge Sampaio, the UN Secretary-General’s Special Envoy to Stop TB, and former President of Portugal.

What the study means for Africa

The study said that the economic cost of TB-related deaths (including HIV co-infection) in Sub-Saharan Africa from 2006 to 2015 is US$ 519 billion when there is no effective TB treatment as prescribed by WHO’s Stop TB Strategy. However, if these same countries in Sub-Saharan Africa were to offer such treatment to TB patients, in keeping with a global plan to halve the prevalence and death rates by 2015 relative to 1990 figures, countries could see their economic benefits exceed their costs by about nine times over. The Global Plan to Stop TB, devised by the Stop TB Partnership, would cost US$ 2 billion a year for TB diagnosis and treatment until 2015 in Africa, and US$ 5-6 billion worldwide.

“There were already compelling reasons to fight TB, which causes massive human suffering. Now, as a further incentive, there are strong indications that investment in meeting the Millennium Development Goal related to TB carries important economic benefits,” said Dr Margaret Chan, Director-General of WHO. Stepping up TB treatment also makes economic sense outside Africa. The study finds that the economic return would be even higher in countries such as China and India, where income growth projections over the next 10 years are higher and the burden of HIV co-infection lower.

TB worsens poverty

The new study said that by sickening or killing working-age adults, TB imposes a heavy cost on people’s incomes as well as national economies. For example, in Zambia, adult deaths among small maize and cotton farmers caused crop yields to fall by roughly 15%. Children are vulnerable to TB as well, and the disease may force them out of school, limiting their future job prospects.

“This important new study shows us why TB control is a smart investment in lasting development for low- and middle-income countries,” said Joy Phumaphi, World Bank Vice-President for Human Development, a former WHO Assistant Director General and former Health Minister in Botswana. “This economic justification for TB control strengthens the case for governments and donors to sharply reduce TB prevalence and deaths in the name of better health and higher incomes for people living at grave risk of TB illness and death.”
The Global Plan to Stop TB, launched by the Stop TB Partnership in January 2006, sets forth a roadmap for treating 50 million people for TB and development agencies to push for the fullest possible adoption of the Global Plan to Stop TB; the plan calls for a shared investment by countries heavily affected by TB and donors.

"This report should wake up countries to the urgent need for a stronger financial commitment to TB control," said Michel Kazatchkine, Executive Director of the Global Fund to Fight AIDS, Tuberculosis and Malaria. "Effective TB control has a positive impact on the lives of the millions of people infected with TB, on whole communities and it reduces the burden of disease on national economies."

The 22 countries with a high burden of TB are: Afghanistan, Bangladesh, Brazil, Cambodia, China, the Democratic Republic of the Congo, Ethiopia, India, Indonesia, Kenya, Mozambique, Myanmar, Nigeria, Pakistan, Philippines, Russian Federation, South Africa, Thailand, Uganda, United Republic of Tanzania, Viet Nam and Zimbabwe.

Looking ahead
The study called for urgently accelerated global TB control because of multiple factors: the extraordinary burden of TB on those afflicted by the disease, their families, and on government budgets; the dramatic growth of TB cases over more than a decade in Eastern Europe and Central Asia; and the emergence of MDR-TB and XDR-TB. TB patients in Eastern Europe and Central Asia are 10 times more likely to have MDR-TB than in other regions of the world, and up to 15% of new cases are multi-drug resistant. The report says the threat of MDR-TB underscores the urgency for all TB-affected countries and health and development agencies to push for the fullest possible adoption of the Global Plan to Stop TB; the plan calls for a shared investment by countries heavily affected by TB and donors.

Phumaphi says the World Bank will intensify its support for TB control, while continuing to work with countries in Eastern Europe, Central Asia and South Asia. In Africa, she says the Bank will take a more proactive approach to financing country-led efforts, using existing channels, sector-wide programmes, combined HIV and TB control programmes, and multi-sectoral operations.

The Stop TB Strategy, launched by WHO in 2006 includes the following priorities:

- Pursue high-quality DOTS expansions and enhancement (the DOTS approach to TB control emphasizes bacteriological-based case detection and standardized treatment with patient support, effective drug supply and monitoring and evaluation);
- Address TB/HIV, MDR-TB and other challenges;
- Contribute to health system strengthening;
- Engage all care providers;
- Empower people with TB and communities; and Enable and promote research.
1. AIDS Epidemic: HIV/AIDS, epidemic spread of HIV/AIDS, set of events that occur during an epidemic, AIDS epidemic

2. Adjusted Odds Ratio (AOR): adjusted for other variables, odds ratio adjusted, adjusted odds ratio

3. Antiretroviral therapy: antiretrovirals, ARV, antiretroviral therapy

4. Behavior Change Communication: behavior change, communication about behavior, behavior change communication

5. Cases: case, cases, case number

6. Confidence Interval (CI): confidence interval, CI, confidence level

7. Confidentiality of test result: confidentiality, test result confidentiality

8. Confounding Factors: confounding factors, confounders

9. Correlation/inter correlation: correlation, inter correlation, correlation coefficient

10. Cross-sectional descriptive study: cross-sectional, descriptive study, cross-sectional study

11. Crude/Unadjusted/ odds ratio: crude odds ratio, unadjusted odds ratio

12. Data collection: data collection, collection of data

13. Data processing: data processing, data analysis

14. Data Analysis: data analysis, statistical analysis

15. Data transmission: data transmission

16. Dependent Variables: dependent variables, dependent

17. Indicators: indicators

18. Independent Variables: independent variables, independent

19. Information Education and Communication: information education, communication, information and communication

20. Information generation: information generation, generation of information

21. Information utilization rate: information utilization, rate of information utilization

22. Elisa test: ELISA test, ELISA

23. Feedback: feedback

24. Frequency: frequency

25. Focus Group Discussion: focus group discussion, FGD

26. HIV Infection: HIV infection, HIV

27. Mother and child care (MCH): mother and child care

28. Non-probability Sampling: non-probability sampling

29. In-depth interview: in-depth interview

30. Logistic Regression: logistic regression

31. Perceived severity: perceived severity

32. Perceived susceptibility: perceived susceptibility

33. Prevention of mother to child transmission: prevention of mother to child transmission

34. Prevalence: prevalence

35. Proportion: proportion

36. Proportion to population Size: proportion to population size

Glossary: Some of the meanings of words used in this Digest
37. Qualitative study:

38. Quantitative study:

39. Random:

40. Randomized Control Trial:

41. Rapid HIV Test:

42. Risk Behavior:

43. Sampling:

44. Sexual Behavior:

45. Sexual commencement:

46. Sexually transmitted Diseases:

47. Sera:

48. Statistical significance:

49. Summary Statistic:

50. Univariate Analysis:

51. Unprotected Sex:

52. Voluntary counselling and testing (VCT):

References


