Ethical Consideration in Epidemiology

Epidemiological research describes the burden of disease in the given population and forms the basis of public health promotion and disease prevention in population. Given its importance, epidemiological studies have to be ethically designed and conducted with emphasis on scientific design, ethical review, informed consent and sharing of research burdens and benefits of these studies.

Guideline ethics

1- **Ethical justification and scientific validity of epidemiological research involving human subjects:** investigators and sponsors must ensure that proposed studies involving human subjects conform to generally accepted scientific principles and are based on adequate knowledge of the pertinent scientific literature.

2- **Ethical review committees:** All proposals to conduct epidemiological research involving human subjects must be submitted for review of their scientific merit and ethical acceptability to one or more scientific review and ethical review committees.

3- **Ethical review of externally sponsored research:** An external sponsoring organization and individual investigators should submit the research protocol for ethical and scientific review in the country of the sponsoring organization, and the ethical standards applied should be no less stringent than they would be for research carried out in that country

4- **Individual informed consent**

5- **Obtaining informed consent: Essential information for prospective research subjects**

6- **Obtaining informed consent: Obligations of investigators and sponsors**

7- **Compensation for participation:** Compensation for participation Subjects may be reimbursed for lost earnings, travel costs and other expenses incurred in taking part in a study; they may also receive free medical services. Subjects, particularly those who receive no direct benefit from research, may also be paid or otherwise compensated for inconvenience and time spent.

8- **Benefits, harms and risks of study participation should be explained**

9- **Special limitations on risk when research involves individuals who are not capable of giving informed consent should be explained**

10- **Research in populations and communities with limited resources:** any intervention or product developed, or knowledge generated, will be made reasonably available for the benefit of that population or community.

11- **Choice of control in clinical trials:** As a general rule, research subjects in the control group of a trial of a diagnostic, therapeutic, or preventive intervention should receive an established effective intervention. In some circumstances it may be ethically acceptable to use an alternative comparator, such as placebo or "no treatment".

12- **Equitable distribution of burdens and benefits in the selection of groups of subjects in research should done**.

13- Safeguarding confidentiality

14- Disclosure and review of potential conflicts of interest

15- **Use of the Internet in epidemiological studies:** If the Internet is used as a tool to identify respondents or to collect data in epidemiological research, the investigator must ensure that an appropriate informed consent procedure is applied and that data confidentiality is maintained.