NEW DIRECTIONS IN EPIDEMIOLOGY SEMINAR

(Epid 140 - Problems in Epidemiology)

When: Wednesdays, 12 noon to 1:30

Where: 1305 McGavran-Greenberg

Who: Epidemiology students and faculty and other interested individuals

This year-long seminar series is a cooperative effort of students and faculty to provide a forum for discussing some of the current challenges and controversies in the field of epidemiology. Faculty members in the epidemiology department will be coordinating one or two sessions on their particular area of research. There will be presentations by individuals from our department, from other departments on campus and from outside the university. It promises to be an interesting and exciting exchange of ideas.

For new students especially, this series is a great way to get to know other students and faculty as well as hear about some of the ongoing research in the department. We invite you to attend as many of these seminars as your schedule permits.

The schedule for the fall semester is below and the schedule for the spring semester will be sent out as soon as it is finalized. We look forward to seeing you there.

Date	Subject Area	Coordinator
Sept. 4	Horizons for Students of Epidemiology	Barbara Hulka
Sept. 11	Social Environment and Host Susceptibility	Bert Kaplan
Sept. 18 and 25	Quantitative Methods in Epidemiology	Irva Hertz-Picciotto
Oct. 2 and 9	Maternal and Child Health Epidemiology	Meg McCann
Oct. 16 and 23	Oral Epidemiology	Jane Weintraub
Oct. 30 and Nov. 6	Environmental Epidemiology	Carl Shy
Nov. 13 and 20	Cancer and Molecular Epidemiology	Barbara Hulka

New Directions

15 Aug

where are students coming from now?
how are they diff from epids from before?

MDs → MPH
now more PhDs

obstacles to progress

more specialties in epid?

students need to be politically savvy?
politics of large studies
big $
~ how are we being prepared?

mens cycle in the big $ is health study

do you get this train in a formal way?
- should we?

what are the taboo areas?
are they contributing to the morbidity
↓

- how do we go into the areas of taboo?

(1) politics
(2) ethics
(3) where students go?

- med sch teaching
- govt - local, state, fed
- private consulting epid
- international agencies

along w/↑ # large studies
collaborative } skills
professional }

└ but what about 1° authorship

epid & clinical med
integration - accomplished

(4) big studies
(5) modelling & meta analysis
(6) epid & lab sciences
(7) use of large data sets
(8) multidisciplinary work

New Directions in Epidemiology Seminar Series

Social Environment and Host Susceptibility

A Panel Discussion with

Bert Kaplan
Dana Loomis
Dick Seed
Harry Guess
Steve Wing
Meg McCann
Vic Schoenbach
Beth Newman
Jim Thomas

Wednesday, September 11, 1991

1305 McGavran-Greenberg

12 noon

(Bring your lunch)

New Directions

11 Sept 91

Cultural - social - psychological components

behavior of indivs vs. behavior of groups or behavior of policy makers

John Castell student of Sydney Kash

why do ~~non~~ exposed non-cases not develop disease?
immuno-competence

Jim Thomas

public health → epid → underserved pop'ns
cultural anthropology cultural pieces

Vic Schoenbach
behavior as a component rather than an integrated part of health

biology & behavior
- different levels
  - universe
  - ⋮
  - single cells

Beth Newman, as geneticist
susceptibility = biological
gene ~ environment
interaction paradigm

admittedly, reductionist

intrigued by the idea of susceptibility = social (causes?)

- aware of the dearth of research on this

Beth Newman, as ♀'s health research
♀ = estrogen — yes, hormonal paradigm
also, lifestyle paradigm
but still "social paradigm" is not up to speed
- POVERTY is biggest risk factor for ill health

SLAM

New Directions
Role of Dose in Meta Analysis

18 Sept 91
Iva Hertz Picciotto

Sources:
- diff in study pops
  - rf
    - → background rates
- power

↑ exp ⟶ resp ↑

not:
- not exceed threshold
- exp above sat point
- larger dose induces another response

Determinants of power
&
true effect

c/c
$P(E|\bar{D})$

cohort
$P(D|\bar{E})$

When truncate distribution according to exp
(take out all those "highly" exposed)
- can mask the real effect if the background distribution of the risk factor is "truncated"

meta-analysis moves toward one answer – trying to assess homogeneous effects assuming homogeneous behavior of the risk factor & outcome
- should get away from this – move toward the heterogeneity – that way we'll learn lots too.

New Directions

25 Sept 91
Mike Arrighi

Healthy Worker Effect

- Healthy Hire Effect - selection process
- Healthy Survivor Effect - a continuing selection effect
  - selection bias - not quite
  - confounder
  - part of Exposure Matrix (related to cumulative exposure)

Is HWSE an intervening var (btw exp & outcome)
job survivorship is not independent from subsequent exp. (cumulative)

Methods to control HWSE

ignore HWSE as bias
- Restriction

confounder
- lagging exp - most recent exp don't count toward exp/disease
- active vs inactive - death w/in 1 or 2 yrs after leave work, say related to work...

intervening variable
- Randomized clinical trial paradigm
  "intent to treat" = "projected exp history"
  nested case-control strategy

"Healthy Worker Effect" disappears over time.

" " " " " you must be healthy enough

ASIDE:
- people die w/disease, not of disease

- comorbidity?
- age @ 1st preg & parity as known risk factors for breast cancer
  so controlling for these 2 - might be a problem

Why do we control for intervening vars?
- is it useful to control if it means controlling for exp?
  - post exp vars are influenced by exp - so can't really

don't be dogmatic about fairly control
which not control for

Steve Wing New Directions
11 March 1992

- "philosophy" important for epidemiologists to understand why they come to epid & why they stay

- "truth" manufactured or found?

- this won't, this isn't (disproving the null hypothesis)
  so when can — do — we say "this is"
  — taking a responsibility....

explanation vs prediction
objectivity bias

epid
- for public health change? or
- for disease etiology?

- focus & responsibility of health is @ individual level
  (not the state's responsibility)

- moving toward taking knowledge from people
  (even tho' policy is often set by the populace's
  perceived ideas & not on "the best" ideas)

- rigorous = quantitative = scientific = truth

- mysticism = math = statistics = power
  - dismiss a finding because of 'chance'
- when does a finding get 'recognized'?

- math → philosophy