

PHCM9518

Advanced Epidemiology

Semester 2, 2011

Contributor/s

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Course Readings

Welcome to *Advanced Epidemiology*

This section offers a brief introduction to the course.

Course staff

Course convenor

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I am a Professor in epidemiology at the National Centre in HIV Epidemiology and Clinical Research. I entered epidemiology from a background in clinical medicine. I completed my medical degree at the University of Adelaide in 1985, and worked in clinical medicine at the Flinders Medical Centre in Adelaide from 1986 to 1988. I completed a Masters degree in Epidemiology at the London School of Hygiene in 1989 to 1990. My masters treatise was on errors in blood pressure measurement. After completing this degree, I was employed by the London School of Hygiene and Tropical Medicine as a Research Fellow in Epidemiology until the end of 1992. During this time, I worked largely in cancer epidemiology, including migrant studies of cancer, artefacts in routinely collected cancer data, and in infectious causes of cancer. The latter research area introduced me to the epidemiology of Kaposi's sarcoma, which remains one of my primary research areas. I set up a case control study of AIDS-associated cancers, including Kaposi's sarcoma, in Rwanda in 1992. In 1993 I returned to Australia, to a position as Lecturer in Epidemiology at Sydney University, and was involved in teaching epidemiology to under and post graduates. I was involved in the design and data collection for a case control study of the role of benign skin naevi as risk factors for melanoma. My PhD was on the epidemiology of HIV-associated cancers and my research interests now extend to cancer, infection and immune function more generally. Apart from this area, my other research interests include HIV prevention and blood borne viruses other than HIV. I use epidemiological techniques through the range of scientific endeavour, from socio-behavioural to molecular research, and apply epidemiological data to the process of policy formation.

Senior lecturers

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Course information

This course explores advanced epidemiological techniques and achieves its aims through case studies in four areas in which epidemiology has made a substantial contribution to public health and clinical policy and practice. These are cancer, cardiovascular disease, hepatitis and screening for disease. The course reviews important epidemiological studies that have contributed to development of knowledge and in public health and clinical application in these areas. The emphasis of the course will be on the importance of epidemiological methods, and will give students a deeper understanding of study designs and biases in epidemiology.

Units of credit

This course is an elective course of the Master of Public Health Program, comprising 6 units of credit towards the total required for completion of the study program.

A prerequisite for this course is PHCM9498 Epidemiology for Public Health

Course aim



The aim of this course builds upon and extends the epidemiological skills taught in PHCM9499 Epidemiology for Public Health

Course outcomes

- Develop an understanding of the contribution of epidemiology to selected major areas of health.
- Critically assess epidemiological studies in these areas.
- Gain a deeper understanding of principles and methods in epidemiology.

Learning and teaching rationale

This course is designed to provide input from researchers and practitioners in the field of epidemiology as well as further develop your competency in key areas such as critical review of published material and outbreak investigation.

The course focuses on developing professional skills and critical thinking.

Teaching strategies

We have designed the course to have a very practical orientation. You will be expected to contribute to and participate in the workshops and discussions. Each session of the workshop will introduce a topic then you will be encouraged to ask questions to get to know more about it.

Online learning component using UNSW Blackboard



UNSW Blackboard is a Learning Management System that supports university learning and teaching by extending the face-to-face learning environment to online learning spaces and providing virtual classrooms for distance learning courses. See: <http://telt.unsw.edu.au/>

Guidance for using UNSW Blackboard

The School runs a Blackboard tutorial during residential week at the start of each semester. If you are unable to attend this tutorial, guidance for using UNSW Blackboard, including some basic tips, can be found at: <http://support.telt.unsw.edu.au/blackboard>

If you are still experiencing difficulties with UNSW Blackboard, please contact the UNSW IT Service Desk for assistance.

Assessment

The written assessment is expected to be your own individual work even if you worked on the assignment in a group or discussed it in your tutorial group. It is essential that you abide by academic standards and that your assignment is not the result of collusion or that of plagiarism. Please see UNSW definition of collusion and plagiarism in the course notes.

The course will be assessed through a mixture of oral and written presentations, focusing on the critical appraisal and interpretations of research papers. There will be one assessment in each of *Infectious diseases*, *Observational studies vs randomized controlled trials* and *Cancer*.

Details of assessment will be given out in class.

Grading and marking

Grades to be used are represented by the following symbols (and corresponding range of marks):

HD (85%-100%), **DN** (75%-84%), **CR** (65%-74%), **PS** (50%-64%), **FL** (<50%)

- HD** This grade represents a High Distinction. This level of performance involves all of the characteristics of a DN performance but also a level of excellence that makes it outstanding. The level of originality, creativity, or depth of thought and understanding shown would be higher than normally expected for postgraduate students. It demonstrates a higher order of critical thinking and reflection than that demonstrated at the level of DN.
- DN** This grade represents a Distinction. This level of performance involves all of the characteristics of a CR performance but also a level of originality, creativity, or depth of thought and understanding. The work might involve a high level of abstract thinking, or the ability to take an idea or an application into a new context, understand the demands of that context and make modifications. Specific assessment criteria relevant to this assignment are adequately addressed and ALL aspects well done. (This distinguishes it from a CR in which one or two aspects may be incomplete or otherwise not well done.)
- CR** This grade represents a Credit. The assignment or project comes together to make a broadly coherent whole. The response answers the question, makes a good argument, draws on appropriate evidence, and shows some selectivity and judgment in deciding what is important and what is not. Communication is clear and effective. Specific assessment criteria relevant to this assignment are adequately addressed. (One or two aspects may not be well done but the overall result is still MORE THAN satisfactory).
- PS** This grade represents a pass. The student has demonstrated understanding of the basic aspects of the topic, but they may be minimally integrated and fail to make a convincing coherent statement or argument. Written work may be descriptive rather than analytical. It may rely too much on retelling other sources such as texts and lecture notes, with little evidence that the student is capable of transforming these into a personal understanding. Significant elements of the assignment are treated superficially. Assessment criteria relevant to the assignment are sufficiently addressed to warrant a PS however the overall standard is no more than satisfactory.
- FL** This grade represents a clear fail. This grade is used when the student has misunderstood the point of the assignment, or failed to address the most important aspects of the topic. In other words a substantial failure, which would need major work before it could be passed.

NOTE: Students are expected to meet UNSW standards of academic writing and in particular must meet standards of referencing described by the Learning Centre. Failure to reference correctly may limit marks to PS or below. Plagiarism or collusion will result in an automatic FL.

Submitting your assignments

1. All assignments must have a cover sheet attached. Cover sheets can be downloaded from the school website:
<http://www.sphcm.med.unsw.edu.au/sphcmweb.nsf/page/AdminForms>
2. Extensions of up to one week are only granted if requested before the due date. Longer extensions, up to a maximum of two weeks, are only considered with medical certificate unless other appropriate reason is given.
3. Assignments will not be marked if submitted after other students' assignments returned.

4. Only FL assignments can be resubmitted. The maximum grade that can be achieved after re-marking is a PS.
5. Assignments will be marked within two weeks of due date. Feedback may not reach students until 3 weeks after assignment submission.
6. All assignments are to be handed directly to the lecturer in class with assignment cover sheet attached. If, for some reason, a student cannot submit in class, assignments can be put in assignment box outside Postgraduate Course Work Area on Level 2, Samuels Building.
7. Marked assignments for internal students to be collected by individual students from the School.
8. All late assignments (unless extension or exemption previously agreed) will drop a grade. This rule applies if the assignment is one day or one week late.

Return of assignments

Marked assignments for internal students to be collected by individual students from the lecturer. Marked assignments submitted electronically to be sent back electronically. Marked assignments for external students who have NOT submitted their assignment electronically will need to check with the course convenor.

Referencing

It is your responsibility to learn one of the accepted academic methods for acknowledging sources of information (citing references). Guidelines for acknowledging sources of information can be found on the following websites:

Faculty of Medicine

<http://web.med.unsw.edu.au/infoskills/cite.htm>

SPHCM

<http://www.sphcm.med.unsw.edu.au/sphcmweb.nsf/page/AssessmentGuidelines>

The Learning Centre

<http://www.lc.unsw.edu.au/olib.html#Referencing>

Academic honesty and plagiarism

At UNSW plagiarism is considered to be a form of academic misconduct and is viewed very seriously. The following notes describe what plagiarism is. You need to ensure you understand what it is so you avoid it in any of your assignments or other work:

What is Plagiarism?

Plagiarism is the presentation of the thoughts or work of another as one's own.*

Examples include:

- direct duplication of the thoughts or work of another, including by copying material, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, web site, Internet, other electronic resource, or another person's assignment without appropriate acknowledgement;
- paraphrasing another person's work with very minor changes keeping the meaning, form and/or progression of ideas of the original;
- piecing together sections of the work of others into a new whole;
- presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or a tutor; and
- claiming credit for a proportion a work contributed to a group assessment item that is greater than that actually contributed.†

For the purposes of this policy, submitting an assessment item that has already been submitted for academic credit elsewhere may be considered plagiarism.

Knowingly permitting your work to be copied by another student may also be considered to be plagiarism.

Note that an assessment item produced in oral, not written, form, or involving live presentation, may similarly contain plagiarised material.

The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does *not* amount to plagiarism.

The Learning Centre website is main repository for resources for staff and students on plagiarism and academic honesty. These resources can be located via: www.lc.unsw.edu.au/plagiarism

The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students, for example, in:

- correct referencing practices;
- paraphrasing, summarising, essay writing, and time management;
- appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.

Individual assistance is available on request from The Learning Centre.

Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management.

Students should allow sufficient time for research, drafting, and the proper referencing of sources in preparing all assessment items.

* Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle

† Adapted with kind permission from the University of Melbourne.

Collusion

The School recognises and encourages the need of external students to have contact with each other and where possible collaborate in their studies. However, there have been instances where students have copied each other's material and submitted it as their own. Lecturers, despite their heavy workload, are alert to this practice. It is emphasised that where collusion can be shown, the students involved may be required to rewrite and re-submit their assignments or may be awarded a fail for the assignment or may be failed in the whole course and even be excluded from the University for misconduct. You should not attempt the assignment questions together and submit the same work as someone else. **It is also not acceptable to submit an assignment which has been submitted by a student in a previous year.**

Readings and resources

Week 1: 21 July

Introduction and review of study designs

Goals:

- to review the key analytic epidemiological study designs
- to review detailed guidelines for the critical appraisal of randomized controlled trials

All students to read:

1. Moher D, Hopewell S, Schulz KF, Montori V, Gøtzsche PC, Devereaux PJ, Elbourne D, Egger M, Altman DG. CONSORT 2010 Explanation and Elaboration: updated guidelines for reporting parallel group randomised trials. *Clin Epidemiol.* 2010 Mar 24; 63(8): e1-e37.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/j.jclinepi.2010.03.004>
2. von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandembroucke JP; STROBE Initiative. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. *Lancet.* 2007 Oct 20; 370(9596): 1453-7.
[http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736\(07\)61602-X](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736(07)61602-X)

Week 2: 28 July

Observational studies versus randomised controlled trials 1: does male circumcision reduce HIV risk?

All students to read:

1. Moses S, Bradley JE, Nagelkerke NJ, Ronald AR, Ndinya-Achola JO, Plummer FA. Geographical patterns of male circumcision practices in Africa: association with HIV seroprevalence. *Int J Epidemiol.* 1990; 19(3): 693-697.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1093/ije/19.3.693>
2. Weiss HA, Halperin D, Bailey RC, Hayes RJ, Schmid G, Hankins CA. Male circumcision for HIV prevention: from evidence to action? *AIDS.* 2008 Mar 12; 22(5): 567-74.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1097/QAD.0b013e3282f3f406>

Papers for presentation:

1. Lavreys L, Rakwar JP, Thompson ML, Jackson DJ, Mandaliya K, Chohan BH, et al. Effect of circumcision on incidence of human immunodeficiency virus type 1 and other sexually transmitted diseases: a prospective cohort study of trucking company employees in Kenya. *J Infect Dis.* 1999; 80: 330-336.
<http://www.journals.uchicago.edu/doi/pdf/10.1086/314884>
2. Auvert B, Taljaard D, Lagarde E, Sobngwi-Tambekou J, Sitta R, Puren A. Randomized, controlled intervention trial of male circumcision for reduction of HIV infection risk: the ANRS 1265 Trial. *PLoS Med.* 2005; 2: e298.
<http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.0020298>
3. Bailey RC, Moses S, Parker CB, Agot K, Maclean I, Krieger JN, Williams CF, Campbell RT, Ndinya-Achola JO. Male circumcision for HIV prevention in young men in Kisumu, Kenya: a randomised controlled trial. *Lancet.* 2007 Feb 24; 369(9562): 643-56.
[http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736\(07\)60312-2](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736(07)60312-2)

Week 3: 4 August

Observational studies versus randomised controlled trials 2

Papers distributed:

All students to read:

1. Lawlor DA, Smith GD, Ebrahim S. Commentary: The hormone replacement-coronary heart disease conundrum: Is this the death of observational epidemiology? *Int J Epidemiol.* 2004; 33(3): 464-467.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1093/ije/dyh124>
2. Herrington DM, Howard TD. From presumed benefit to potential harm – hormone therapy and heart disease. *N Engl J Med.* 2003; 349(6):519-521.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://www.nejm.org/doi/full/10.1056/NEJMp038108>

Papers for presentation:

1. Grodstein F, Stampfer MJ, Manson JE, Colditz GA, Willett WC, Rosner B, Speizer FE, Hennekens CH. Postmenopausal estrogen and progestin use and the risk of cardiovascular disease. *N Engl J Med.* 1996 Aug 15; 335(7): 453-61.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://www.nejm.org/doi/full/10.1056/NEJM199608153350701>
2. Manson JE et al for the Women's Health Initiative Investigators. Estrogen plus progestin and the risk of coronary heart disease. *N Engl J Med.* 2003; 349(6): 532-534.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://www.nejm.org/doi/full/10.1056/NEJMoa030808>
3. Hulley S, Grady et al. Randomized trial of estrogen plus progestin for secondary prevention of coronary heart disease in postmenopausal women. *JAMA.* 1998; 280: 605-613.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://jama.ama-assn.org/content/280/7/605.full>

Week 4: 11 August

Observational studies versus randomised controlled trials 3

Papers distributed:

All students to read:

1. Fleming DT, Wasserheit JN. From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. *Sex Transm Infect.* 1999; 75(1): 3-17.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1136/sti.75.1.3>
2. Gray RH, Wawer MJ. Reassessing the hypothesis on STI control for HIV prevention. *Lancet.* 2008; 371: 2064-2065.
[http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736\(08\)60896-X](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736(08)60896-X)

Papers for presentation:

1. Reynolds SJ, Risbud A et al. Recent herpes simplex virus type 2 infection and the risk of human immunodeficiency virus type 1 acquisition in India. *JID.* 2003; 187: 1513-1521.
<http://www.journals.uchicago.edu/doi/abs/10.1086/368357>
2. Renzi C, Douglas JM Jr, Foster M, Critchlow CW, Ashley-Morrow R, Buchbinder SP, Koblin BA, McKirnan DJ, Mayer KH, Celum CL. Herpes simplex virus type 2 infection as a risk factor for human immunodeficiency virus acquisition in men who have sex with men. *J Infect Dis.* 2003 Jan 1; 187(1): 19-25.
<http://www.journals.uchicago.edu/doi/abs/10.1086/345867>
3. Celum C, Wald A et al. Effect of aciclovir on HIV-1 acquisition in herpes simplex virus 2 seropositive women and men who have sex with men: a randomised, double-blind, placebo-controlled trial. *Lancet.* 2008; 371(9630): 2109-2119.
[http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736\(08\)60920-4](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736(08)60920-4)

Week 5: 18 August

Introduction to cancer epidemiology

Goal:

- To introduce students to unique features of cancer epidemiology

All students to read:

1. dos Santos Silva, I. Cancer Epidemiology: principles and methods. Chapters 1 (Introduction to cancer epidemiology) and 17 (The role of cancer registries). Pp 1-10 and pp 385-404.
[http://searchfirst.library.unsw.edu.au/primo_library/libweb/action/search.do?vid=UNSW&fn=search&vl\(freeText0\)=UNSW_DigiTool86029](http://searchfirst.library.unsw.edu.au/primo_library/libweb/action/search.do?vid=UNSW&fn=search&vl(freeText0)=UNSW_DigiTool86029)
2. Vandembroucke JP, von Elm E, Altman DG, Gøtzsche PC, Mulrow CD, Pocock SJ, Poole C, Schlesselman JJ, Egger M; STROBE Initiative. Strengthening the reporting of observational studies in epidemiology (STROBE): explanation and elaboration. PLoS Med. 2007; 4(10): e297.
<http://www.annals.org/cgi/content/full/147/8/W-163>

Week 6: 25 August

The aetiology of cervical cancer

Goals:

- To review the role of infectious agents in the causation of cervical cancer.
- To revise and extend students' understanding of interaction, confounding and residual confounding.

All students to read:

1. Leon D. Failed or misleading adjustment for confounding. Lancet. 1993; 342(8869): 479-481.
[http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/0140-6736\(93\)91599-H](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/0140-6736(93)91599-H)
2. Smith GD, Phillips A. Declaring independence: why we should be cautious. Epidemiol Community Health. 1990; 44: 257-258.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1136/jech.44.4.257>
3. Beral V. Cancer of the cervix: a sexually transmitted infection? Lancet. 1974; 303(7865): 1037-1040.
[http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/doi:10.1016/S0140-6736\(74\)90432-2](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/doi:10.1016/S0140-6736(74)90432-2)

Papers for presentation:

1. Muñoz N et al. Risk factors for cervical intraepithelial neoplasia grade III/carcinoma in situ in Spain and Colombia. *Cancer Epidemiol Biomarkers Prev.* 1993; 2(5): 423-431.
<http://cebp.aacrjournals.org/cgi/content/abstract/2/5/423>
2. Ylitalo N et al. Consistent high viral load of human Papillomavirus 16 and risk of cervical carcinoma in situ: a nested case-control study. *Lancet.* 2000; 355: 2194-2198.
[http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736\(00\)02402-8](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736(00)02402-8)
3. Moreno V et al. Effect of oral contraceptives on risk of cervical cancer in women with human papillomavirus infection: the IARC multicentric case-control study. *Lancet.* 2002; 359: 1085-1092.
[http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736\(02\)08150-3](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736(02)08150-3)
4. Franceschi S et al. Differences in the risk of cervical cancer and human papillomavirus infection by education level. *British Journal of Cancer.* 2009; 101: 865-870.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1038/sj.bjc.6605224>
5. Kapeu AS et al. Is smoking an independent risk factor for invasive cervical cancer? A nested case-control study within Nordic biobanks. *Am J Epidemiol.* 2009; 169: 480-488.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1093/aje/kwn354>

Week 7: 1 September

Identifying a cancer cause: electromagnetic fields and cancer

Goals:

- To review the history and current status of the public health controversy surrounding the issue of a possible relationship between electromagnetic fields and childhood cancer.
- To introduce students to the techniques of meta-analysis and pooled analysis

All students to read:

1. Egger et al. Spurious precision? Meta-analysis of observational studies. *BMJ.* 1998; 3116: 140-144
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://www.bmj.com/content/316/7125/140.full?sid=866e33b9-e983-4d9d-8856-40e477c7ef52>

2. Zwahlen M, Renehan A, et al. Meta-analysis in medical research: Potentials and limitations. *Urologic Oncology*. 2008; 26: 320-9.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/j.urolonc.2006.12.001>
3. Wertheimer N, Leeper E. Electrical wiring configurations and childhood cancer. *Am J Epidemiol*. 1979; 109: 273-284.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://aje.oxfordjournals.org/content/109/3/273.full.pdf+html>

Papers for presentation:

1. Washburn EP et al. Residential proximity to electricity transmission and distribution equipment and risk of childhood leukemia, childhood lymphoma, and childhood nervous system tumours: systematic review, evaluation, and meta-analysis. *Cancer Causes Control*. 1994; 5: 299-309.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://www.springerlink.com/content/p1678151x35g3537/fulltext.pdf>
2. Linet MS et al. Residential exposure to magnetic fields and acute lymphoblastic leukaemia in children. *N Eng J Med*. 1997; 337: 1-7.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://www.nejm.org/doi/pdf/10.1056/NEJM199707033370101>
3. Ahlbom A et al. A pooled analysis of magnetic fields and childhood leukaemia. *Br J Cancer*. 2000; 83(5): 692-698.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1054/bjoc.2000.1376>
4. Hug K, Grize L, Seidler A, Kaatsch P, Schuz J. Parental occupational exposure to extremely low frequency magnetic fields and childhood cancer: a German case-control study. *Am J Epidemiol*. 2010; 171(1): 27-35
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1093/aje/kwp339>

Week 8: 15 September

Cancer prevention: screening

Goals:

- To review the role of screening as a means of cancer (and other disease) prevention
- To review methods of evaluation of screening.

All students to read:

1. Miller A. Chapter 66. Fundamental issues in screening for cancer. Pp 1433-1444 in Schottenfeld D & Fraumeni JF. *Cancer epidemiology and prevention* (1996). Oxford University Press, Oxford.
[http://searchfirst.library.unsw.edu.au/primo_library/libweb/action/search.do?vid=UNSW&fn=search&vl\(freeText0\)=UNSW_DigiTool86028](http://searchfirst.library.unsw.edu.au/primo_library/libweb/action/search.do?vid=UNSW&fn=search&vl(freeText0)=UNSW_DigiTool86028)

2. Frankel S, Smith GD, Donovan J, Neal D. Screening for prostate cancer. *Lancet* 2003; 361: 1122-1128.
[http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736\(03\)12890-5](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736(03)12890-5)
3. Smith DP, Supramaniam, Marshall VR, Armstrong BK. Prostate cancer and prostate-specific antigen testing in New South Wales. *MJA* 2008; 189: 315-318.
http://www.mja.com.au/public/issues/189_06_150908/smi11458_fm.html

Papers for presentation:

1. Tabar et al. Reduction in mortality from breast cancer after mass screening with mammography. *Lancet* 1985; 1: 829-832.
[http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736\(85\)92204-4](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736(85)92204-4)
2. Gøtzsche PC, Olsen O. Is screening for breast cancer with mammography justifiable? *Lancet* 2000; 355(9198): 129-134.
[http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736\(99\)06065-1](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736(99)06065-1)
3. Humphrey LL et al. Breast cancer screening: a summary of the evidence for the U.S. Preventative Services Task Force. *Ann Intern Med* 2002; 137(5): E347-367.
http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://www.annals.org/content/137/5_Part_1/347.full
4. Andriole GL, Grubb RL, et al. Mortality results from a randomized prostate-cancer screening trial. *N Engl J Med* 2009; 360: 1310-9.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://www.nejm.org/doi/full/10.1056/NEJMoa0810696>
5. Schroder FT, Hugosson J, et al. Screening and prostate-cancer mortality in a randomized European study. *N Engl J Med* 2009; 360: 1320-8.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://www.nejm.org/doi/full/10.1056/NEJMoa0810084>

Week 9: 22 September

Infectious diseases 1

Goals:

- Introduce key features of the epidemiology of hepatitis C
- Review the main study types used in analytical epidemiology

All students to read:

1. Gidding H, Topp L, Middleton M, Robinson, K, Hellard M, McCaughan G, Maher L, Kaldor JM, Dore GJ, Law MG. The epidemiology of hepatitis C in

Australia: notifications, treatment uptake and liver transplantations, 1997-2006. *J Gastro Hepatol.* 2009; 24(10): 1648-1654.

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1111/j.1440-1746.2009.05910.x>

2. Poynard T, Yuen M, Ratziu V, Lai CL. Viral hepatitis C. *The Lancet.* 2003; 362(9401): 2095-2100.

[http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736\(03\)15109-4](http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/S0140-6736(03)15109-4)

Papers for presentation:

1. Armstrong GL, Wasley A, Simard EP, McQuillan GM et al. The prevalence of hepatitis C virus infection in the United States, 1999 through 2002. *Ann Intern Med.* 2006; 144: 705-714.

<http://www.annals.org/cgi/content/abstract/144/10/705>

2. Razali K, Thein H, Bell J, Cooper-Stanbury M, Dolan K, Dore GJ et al. Modelling the hepatitis C virus epidemic in Australia. *Drug and Alcohol Dependence.* 2007; 91(2-3): 228–235.

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/j.drugalcdep.2007.05.026>

Week 10: 29 September

Infectious diseases 2

Goals:

- Gain an understanding of the risk factors for transmission of hepatitis C
- Explore epidemiological approaches to identifying transmission pathways

All students to read:

1. Robotin M, Copland J, Tallis G, Coleman D, Giele C, Carter L, Spencer J, Kaldor J, Dore GJ. Surveillance for newly acquired hepatitis C in Australia. *Journal of Gastroenterology and Hepatology.* 2004; 19: 283–288.

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1111/j.1440-1746.2003.03270.x>

2. Van De Laar T, Pybus O, Bruisten S, Brown D, Nelson M, Bhagani S, et al. Evidence of a large, international network of HCV transmission in HIV positive men who have sex with men. *Gastroenterology.* 2009; 136(5): 1609–1617.

<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1053/j.gastro.2009.02.006>

Papers for presentation:

1. Falster K, Kaldor JM, Maher L. Hepatitis C virus acquisition among injecting drug users: a cohort analysis of a national repeated cross-sectional survey of needle and syringe program attendees in Australia, 1995-2004. *J Urban Health*. 2009, 86(1): 106-118.
<http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://www.springerlink.com/content/n660lv7k85m37023/fulltext.pdf>
2. Kwon JA, Iversen J, Maher L, Law MG, Wilson DP. The impact of needle and syringe programs on HIV and HCV transmissions in injecting drug users in Australia: a model-based analysis. *J Acquir Immune Defic Syndr*. 2009, 51: 462-469.
<http://journals.lww.com/jaids/pages/articleviewer.aspx?year=2009&issue=08010&article=00015&type=abstract>
3. Suzy Teutsch, Fabio Luciani, Nicolas Scheuer, Luke McCredie, Parastu Hosseiny, William Rawlinson, John Kaldor, Gregory J Dore, Kate Dolan, Rosemary Ffrench, Andrew Lloyd, Paul Haber, Michael Levy. Incidence of primary hepatitis C infection and risk factors for transmission in an Australian prisoner cohort. *BMC Public Health* 2010, 10: 633.
<http://www.biomedcentral.com/1471-2458/10/633>

Week 11: 6 October

Infectious diseases 3

Goals:

- Gain an understanding of disease progression in hepatitis C
- Explore epidemiological approaches to studying disease natural history

All students to read:

1. Freeman AJ, Dore GJ, Law MG, Thorpe M, Von Overbeck J, Lloyd AR, Marinos G, Kaldor JM. Estimating progression to cirrhosis in chronic hepatitis c virus infection. *Hepatology*. 2001; 34(4): 809-816.
<http://www3.interscience.wiley.com/cgi-bin/fulltext/106597431/PDFSTART>
2. Jauncey M, Micallef J, Gilmour S, Amin J, White P, Rawlinson W, Kaldor JM, van Beek I, Dore GJ. Clearance of Hepatitis C virus after newly acquired infection in injection drug users. *JID*. 2004;190:1270-1273.
<http://www.journals.uchicago.edu/doi/pdf/10.1086/423943>

Papers for presentation:

1. Shiratori Y, Ito Y, Yokosuka O, Imazeki F, et al. Antiviral Therapy for Cirrhotic Hepatitis C: Association with Reduced Hepatocellular Carcinoma Development and Improved Survival. *Ann Intern Med.* 2005; 142: 105-114. <http://www.annals.org/cgi/content/full/142/2/105>
2. Scott R, Walter, Hla-Hla Thein, Janaki Amin, Heather F. Gidding, Kate Ward, Matthew G. Law, Jacob George, Gregory J. Dore. Trends in mortality after diagnosis of hepatitis B or C infection: 1992–2006. *Journal of Hepatology* 2011 vol. 54, 879–886. <http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1016/j.jhep.2010.08.035>
3. Thein HH, Yi Q, Dore GJ, Krahn MD. Estimation of stage-specific fibrosis progression rates in chronic hepatitis C virus infection: a meta-analysis and meta-regression. *Hepatology.* 2008; 48: 418-431. <http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1002/hep.22375>
4. Thomas DL, Thio CL, Martin MP, Qi Y, Ge D, O'Huigin C, et al. Genetic variation in IL28B and spontaneous clearance of hepatitis C virus. *Nature.* 2009; 461: 798-801. <http://er.library.unsw.edu.au/er/cgi-bin/eraccess.cgi?url=http://dx.doi.org/10.1038/nature08463>

Learning resources for this course consist of the following:

1. 11 weekly workshops
2. These course notes with readings

Continual course improvement

Periodically student evaluative feedback on both courses and teaching is gathered. The UNSW's Course and Teaching Evaluation and Improvement (CATEI) Processes are used along with student focus groups, student forums, and at times additional evaluation and improvement instruments developed in consultation with the Faculty of Medicine's Program Evaluation and Improvement Group. Student feedback is taken seriously, and continual improvements are made to the course based in part on such feedback.

Evaluation activities across the Faculty are strongly linked to improvements and ensuring support for learning and teaching activities for both students and staff.

Additional support to students

IT requirements for UNSW students

Our courses have online components which have been developed and are taught on the assumption that all students meet the UNSW IT Requirements Policy.

Viewable online at:

<https://www.it.unsw.edu.au/students/policies/index.html>

UNSW IT Service Desk (UNSW Blackboard support)

The IT Service Desk is your central point of contact for assistance and support with UNSW Blackboard, UniPass, zPass, UniMail, UniWide, zMail and Anti-virus software. Contact them directly for assistance with IT related matters, including UNSW Blackboard:

Website: <http://www.it.unsw.edu.au/index.html>
Tel: +61 (2) 9385 1333
Email: itservicecentre@unsw.edu.au
Location: UNSW Library

UNSW library support

Staff at the library can help you:

- find information resources for your assignments
- access electronic resources & databases
- advise you on library and information services.

Information about UNSW library assistance is available at:

Library Homepage: <http://www.library.unsw.edu.au/>
Postgraduate Services: <http://www.library.unsw.edu.au/servicesfor/PGandH.html>
Tel: 02 9385 2650
Location: UNSW Library, Level 2 Service desk

Library resources

Online training and resources

There are a variety of online tutorials and resources available to Postgraduate students to help equip you with the information skills you will need to get started in your program. It is **highly recommended** that you complete these tutorials and get familiar with the resources available prior to commencing your studies and assignments. <http://elise.library.unsw.edu.au/home/welcome.html>

Online Information Skills Tutorial - ELISE Plus

This is a task-based approach to the information literacy and the skills you need to be effective. It contains modules on searching databases (which include videos

and screen captures), evaluating different types of resources like peer-reviewed journals and websites and citing references. This tutorial is designed to help students learn more about: searching for information to complete assignments and projects, and self-directed learning. Entering coursework students should complete the ELISE quiz: <http://eliseplus.library.unsw.edu.au/>

The ELISE postgraduate tutorial – ELISE Advanced

The five modules will step you through the fundamental processes of research and information seeking, they cover; selecting and searching, finding and using and critically evaluating all sources of information.

<http://pgelise.library.unsw.edu.au/>

Subject guides

Use these guides as a quick and easy pathway to locating resources in your subject area. These excellent guides bring together the core web and print resources in one place and provide a one click portal into the online resources.

<http://subjectguides.library.unsw.edu.au/>

Virtual Library: Public Health

The Virtual Public Health Library brings together public health sites and resources from around the world in a systematic and easily accessible way for all those wishing to be in touch with the most relevant and meaningful public health resources – see <http://vph.sphcm.med.unsw.edu.au/>

Learning Centre

The Learning Centre provides a wide range of workshops and study skill resources to students enrolled in degree programs at the University. Students can access information on: Essay and assignment writing, Exam skills, Reading and writing skills, Referencing and plagiarism, Organisation skills, Oral presentations. See: <http://www.lc.unsw.edu.au>

Administrative matters

All administrative matters are covered comprehensively on the SPHCM Website. Check for details on how to access email, obtain your UniPass etc. at:

<http://www.sphcm.med.unsw.edu.au/sphcmweb.nsf/page/StudentResources>

See the school website for information on school assessment guidelines, including extensions and late assignments:

<http://www.sphcm.med.unsw.edu.au/SPHCMWeb.nsf/page/AssessmentGuidelines>

If you do not have a handbook you can pick one up from the Postgraduate Coursework Office, Level 2 Samuels Building or download it from the web.

<http://www.sphcm.med.unsw.edu.au/SPHCMWeb.nsf/page/Current%20Students>

For any further assistance, you can contact:

Postgraduate Office
School of Public Health and Community Medicine
The University of New South Wales
Level 2, Samuels Building
UNSW Sydney NSW 2052, Australia

T: + 61 (2) 9385 1699 - Graduate Health Management Programs
T: + 61 (2) 9385 2507 - Graduate Public Health Programs
T: + 61 (2) 9385 1928 - Graduate Clinical Education Programs

F: + 61 (2) 9385 1526
E: postgrad-sphcm@unsw.edu.au

Other matters

Occupational Health & Safety:

http://www.ohs.unsw.edu.au/ohs_students/index.html

Complaints procedures: <https://my.unsw.edu.au/student/atoz/Complaints.html>

Equity & Diversity: <http://www.studentequity.unsw.edu.au/content/default.cfm?ss=0>

Course schedule

Class: Thursdays 6-8pm, Mat 125, Mathews Building

Date	Topic/Section	Assessment
Week 1 21/7/11	Introduction and review of study designs	TBA
Week 2 28/7/11	Observational studies versus randomised controlled trials 1: does male circumcision reduce HIV risk?	
Week 3 4/8/11	Observational studies versus randomised controlled trials 2	
Week 4 11/8/11	Observational studies versus randomised controlled trials 3	
Week 5 18/8/11	Introduction to cancer epidemiology	TBA
Week 6 25/8/11	The aetiology of cervical cancer	
Week 7 1/9/11	Identifying a cancer cause: electromagnetic fields and cancer	
Mid-semester break: 8/9/11		
Week 8 15/9/11	Cancer prevention: screening	TBA
Week 9 22/9/11	Infectious diseases 1	
Week 10 29/9/11	Infectious diseases 2	
Week 11 6/10/11	Infectious diseases 3	