

The University of British Columbia
School of Population and Public Health

SPPH 581L (DL) 2016

Course: DETERMINANTS OF CHILD HEALTH & DEVELOPMENT (DCHD)

Distributed Learning Format

Credits: 3

Course Directors:

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General Course Description:

This course is an introduction to Child Health & Development (CHD) providing multidisciplinary population and public health training in the determinants of child health. The social, environmental, nutritional, physiological and economic factors that enhance or impede development and growth are emphasized from conception through adolescence. Child development is not a linear process, but rather includes elements that reflect early programming, neurodevelopmental plasticity. The determinants of child health, along with systems of care, are examined within broad social contexts. Links between childhood health and illness, with health services are reviewed, legislative and policy implications are analyzed and preventive strategies are evaluated.

A child's health and development reflects an iterative process of interactions between biological, family, social, cultural and economic influences extending from periods long before conception. While substantial research has advanced methods of controlling and preventing infectious diseases and much of the last century has focused on acute medical conditions. Now we struggle to confront the burden of suffering arising from non communicable chronic conditions that leave us continuing to ask why some children are healthy wealthy and wise, while others succumb to adversity. Critical questions remain unanswered regarding the pathways that put health at risk and whether this process can be influenced by public policy at a population level.

This course will serve as an introduction to the foundational thinking of what shapes child health and will provide an overview of the determinants of child health extending from basic molecules to society levels (protoplasm to populations). This course is designed for all learners at the Masters and PhD levels in Population and Public Health.

Course Objectives:

1. To understand *key elements* or *dimensions* of child health (Physical-Medical, Mental-Psychological, and Developmental-Functional)
2. To identify the *key determinants* of health (principally genetic and environmental) and a selection of frameworks that link these to the population's health
3. To understand the indicators (measurable aspects) of child health
4. To understand the *how* (pathways) and *why* (mechanisms) determinants are linked to child health extending from conception to adolescence.
5. To illustrate how policy initiatives, access to services and service delivery address community child health.

Course overview

Module 1: Children are not just small adults: Elements of DCHD

This module provides the background, theoretical overview and review of data that will be used to build knowledge and consider action in subsequent modules.

- Describe where the notion of childhood and its historic roots
- Define key constituents of child health
- Identify protective factors (biological, social and community) that promote childhood health
- Describe common threats to children's health
- Identify data sources and indicators of child health
- Describe key global, national and provincial policies influencing child health

Module 2: Theoretical and Evidence-based Foundations

This module focuses on determinants of child health from the cell to society. It covers:

- An overview of theoretical model and key concepts
- New emerging theories on the impact of child health across the early life span
- Considering determinants of child health from individual to family to community to environment

Module 3: The Policy Context

This module reviews the policy and practice context of children's health. Topics covered include:

- Services and systems relevant to child health
- Affecting policy and change

Course Structure:

SPPH 581L is a mixed mode course. This means that students will be working with their instructors and fellow students both online and face-to-face in the classroom. Key components of DCHD will be outlined through in-person lectures, online activities and pre-assigned readings. Each module will include an online component and a face-to-face meeting.

The online portion of this course includes a series of online conferences and activities posted in the course forum for broader discussion. The face-to-face component of the course takes place over three days and includes guest lectures and group discussions. The course has been designed such that online material supports and complements face-to-face meetings. The students are expected to connect these materials through thoughtful online and in-person discussion and participation.

Online Live Classroom:

Students will participate in periodic Blackboard Connect online conferences with the course directors and a guest lecturer to synthesize knowledge on module topics, discuss any emerging issues and review module activities. An archive of these sessions will be made available for students' reference. It is important that students familiarize themselves with the Blackboard Connect system accessible through UBC before the first session.

Evaluation:

Class/online participation: 20%

Activities 1-5, Developing a family profile: (6% each) 25%

Oral Presentation to Dragon's Den: 20%

Final policy brief paper: 30%

Activities (30%):

Note: There is **2 page** (single-spaced) limit for all activities, including figures, references and any other materials. Marks will be docked for assignments exceeding page limits.

Activities: Developing a Family Profile

Students will develop a profile of a family that they will be writing about throughout the course for activities 1 through 5. The objectives of these activities include:

- Experiencing the determinants of health at the individual and family level;
- Understanding existing policies relevant to child health and identifying gaps in those policies in supporting vulnerable families;
- Learning about existing provincial programs that are relevant to the family's situation;
- Considering the impact of the community environment on health and wellness of children; and

- Identifying barriers and facilitators to accessing health care services for vulnerable families.

Students are encouraged to select their family and the family's health issues/concerns to help shape the policy that is described in the final policy brief paper. However, it is not a requirement that the issues explored through the assignments be reflected in the final policy brief.

Students will post all assignments to the Assignment Wiki within Blackboard Connect and are strongly encouraged to comment/ask questions about other students' assignments.

Activity 1: Family Portrait

Students will choose one family to focus on in consultation with course directors. All families will have at least one child, live somewhere in BC, and at least one child in the family with a health issue. This health issue may be chronic or acute, and have been present from birth or emerged as the child developed (e.g., diabetes, injury, fetal alcohol syndrome). Families will differ in their cultural background, income level and health concerns. Students must decide how many members are in the family, their ages, genders, place of residence, details regarding health issues, educational background, occupation and any other desired details. Students are encouraged to develop as detailed a profile as possible (including pictures, maps or any other contextual features). Details may change as subsequent activities are completed and new insights are gained. Students will post a summary of their family onto the Blackboard Connect system. Students will post their portrait and are encouraged to comment on each other's portraits.

Activity 2: Family's Budget

Students will develop a monthly budget for their family based on their NET income, including items such as housing, food, childcare, utilities (gas, hydro, phone), transportation, clothing, extracurricular activities, medical costs, etc. Students are encouraged to learn about existing provincial and federal programs that are relevant to their family (e.g., MSP subsidy, medical cost subsidies) and consider their impact on the budget. Students will post their budget and are encouraged to comment on each other's budgets.

Activity 3: Family's Community

Students will develop a profile of the community that the family lives in. Possible details include outlining where the family shops for food, what they use for transport, their access to recreational activities and health care, how comfortable and engaged the family feels in the community (e.g., social support network, neighbours, local engagement, discrimination). In addition, students will use readily available data sources to develop a profile of one community health and well-being indicator, such as injuries in the local health area, crime statistics, environmental pollutants, availability of parks and recreation spaces, etc. Student will post their profile and are encouraged to comment on each other's profile.

Activity 4: Family's Food & Nutrition

Using the budget developed in Activity 2, students will shop for a week's worth of food for the family, based on the prices found in the family's local supermarket. Where applicable, students should consider logistics and costs related to transport to the shopping area and/or childcare

costs. Students will summarize the items purchased, the total cost, what meals will consist of for the family for that day, and compare the food intake to recommendations in Canada's Food Guide. Students will post their shopping list and nutritional analysis and are encouraged to comment on each other's assignments.

Activity 5: Family's Health Diary Entry

Students will delve further into their family's health issue(s). Students will consider how the family is accessing health services and managing care for the child(ren) and parents, if applicable (e.g., visiting specialists, covering medication costs). Taking the perspective of the parent(s), students will write a diary entry describing the child's health issue (and their own if applicable) and reflecting on how the parent is coping, the accommodations they (and other family members) have to make for their child in their daily lives, any medical care required, as well as what this means for the family's monthly budget. The diary entry should include a brief "wish list" of a policy, program and/or health service that might help the family cope that is not currently available. Students will also include a link to a recent media article relevant to the child's health issue to help consider the population-level/societal context of the health issue, which they will summarize in 1-2 paragraphs. Students will post their diary entry, media article and brief summary and are encouraged comment on each other's entry.

Final Presentation to Dragon's Den (20%):

Students have spent the semester thinking about the social determinants of health as they relate to the family they have chosen to profile. The final presentation and policy brief paper are intended to provide an opportunity to integrate learning from the course to develop policy recommendations that would be expected to meaningfully and positively influence the lives of family members. Students should select a policy and/or health service and develop a policy brief and presentation on that topic.

Students will present to the class and the Dragon's Den – a panel of policy makers and/or practitioners. Presentations take place during the final in-person session. Students are expected to present their policy (as reflected in the final paper), why they chose it, and their recommendations. They must seek to convince the panel that it is worth investing in their policy or service. Presentations should be in PechaKucha format of 20 slides X 20 seconds per slide (6 minutes, 40 seconds total) (www.pecha-kucha.org). The presentation slides should minimize text and focus on visuals. Presentations will be followed by a short question period.

Aspects of the course syllabus we expect the students to incorporate into their presentation and final policy brief:

- ✓ Demonstrates a clear understanding of how social determinants are linked to child health. Acknowledges that determinants of health span from individual, to family to community, etc.
- ✓ Identifies protective factors that might protect and promote child health
- ✓ The policy proposed clearly addresses social determinants of health
- ✓ The student uses a clear, valid evidence-base to argue for their policy recommendation
- ✓ The student provides relevant and appropriate indicators that might be measured to demonstrate their policy's success

Presentation Resources:

- TED Talk: Simon Sinek “How great leaders inspire action”
http://www.ted.com/talks/simon_sinek_how_great_leaders_inspire_action?language=en
- Heath, C. & Heath, D. (2008). Made to stick: Why some ideas survive and others die. New York: Random House.

Final Policy Brief Paper (30%):

A policy brief is a medium for exploring an issue and distilling lessons learned from the research. It is a vehicle for providing the rationale for a particular policy. The brief should be a stand-alone document focusing on advocating for a single policy or service. Students should select an audience for their brief, such as policy makers, practitioners, media, etc. and tailor the message to their audience. **Maximum length of the brief is 3,000 words, excluding executive summary.** Please submit via email to Dr. Brussoni as a Word document. A sample brief outline includes:

- Executive summary (maximum length = 1 page)
 - Distill the essence of the brief (Describe the problem, outline why current approaches aren't working, prescribe a new action)
 - Provide an overview for busy readers
 - Entice readers to go further
- Context and Importance of the Problem: This should convince the reader that the problem is urgent and requires action
 - Clearly state the problem
 - Provide overview of root causes
 - Describe policy implications of the problem
- Critique of policy option(s)
 - Detail shortcomings of the current approach (or lack thereof) to show the need for change
 - Outline policy options
 - Describe why the current approach doesn't work.
- Policy recommendations:
 - Describe policy approach
 - Rationalize your recommendation with evidence
- Policy actions:
 - Suggest concrete actions to address the issue
 - Breakdown the specific practical steps/measures needed to implement and by whom.
 - Make sure to include information on jurisdiction, potential cost, evaluation metrics, sustainability and feasibility
 - Consider potential unintended outcomes of the policy and how to mitigate them
 - Consider potential challenges/barriers and solutions

Course Schedule

Web-based	DATES	Topic	Readings/Online material
			<p>Sidebotham, P., Fraser, J., Covington, T., Freemantle, et al. (2014). Understanding why children die in high-income countries. <i>The Lancet</i>, 384(9946), 915-927.</p> <p>Hertzman & Boyce (2010). How experience gets under the skin to create gradients in developmental health. <i>Annual Review of Public Health</i>, 31, 329-347.</p>
Face-to-Face #1	Thursday, Sept 8		Readings/Online material
Module 1			
8:30-9:00am Welcome & Introductions	Mariana Brussoni and Shazhan Amed		
9:00-10:00 Introduction to child health & development	Nancy Lanphear	Child development overview; Biopsychosocial perspectives	
10:00-11:00 Environmental contaminants & children under siege	Bruce Lanphear		<p>Rauch & Lanphear. (2012). Prevention of disability in children: Elevating the role of the environment. <i>The Future of Children</i>, 22(1), 193-217.</p> <p>Lanphear, B. P. (2015). The impact of toxins on the developing brain. <i>Annual Review of Public Health</i>, 36, 11-30.</p>
11:15-12:15	Shazhan Amed	Using collective impact to achieve a healthy community environment	Kania, J., & Kramer, M. (2011). Collective impact.

Ecological Systems Interventions			<p><i>Stanford Social Innovation Review</i>.</p> <p>Kania, J., & Kramer, M. (2013). Embracing emergence: How collective impact addresses complexity. <i>Stanford Social Innovation Review</i>.</p> <p>Williams, N. D., Hanley, A. J. G., & Delormier, T. (2012). A socioecological framework to understand weight-related issues in Aboriginal children in Canada. <i>Appl. Physiol. Nutr. Metab</i>, 37, 1-13.</p>
Module 2			
1:00-2:00 Nutrition & physical activity	Louise Mâsse	Physical activity, policy context, schools	
2:00-3:00 Injury Prevention	Mariana Brussoni		<p>Peden, M., Oyegmite, K., Ozanne-Smith, J., et al. (2008). <i>World report on child injury prevention</i>. Geneva: World Health Organization. http://www.who.int/violence_injury_prevention/child/injury/world_report/en/ (read summary report)</p> <p>Parachute. (2015). <i>The cost of injury in Canada</i>. Toronto, ON: Parachute. http://www.parachutecanada.org/downloads/research/Cost_of_Injury-2015.pdf (read executive summary)</p> <p>Tremblay et al. (2015). Position statement on</p>

			active outdoor play. <i>International Journal of Environmental Research & Public Health</i> , 12, 6475-6505. http://www.mdpi.com/1660-4601/12/6/6475
3:15-4:15 Policy context: First Call	Adrienne Montani	Policy context and advocacy work (child poverty, living wage, childcare)	First Call. (2015). 2014 child poverty report card. http://www.firstcallbc.org/pdfs/EconomicEquality/First%20Call%20BC%20Child%20Poverty%20Report%20Card%202012.pdf
4:15-4:30 Wrap-up	Mariana Brussoni & Shazhan Amed		
Web-based	DATES		Readings/Online material
Activity 1	Due Sept 16	Family Portrait	UNICEF. Fact sheet: A summary of the rights under the Convention on the Rights of the Child. http://www.unicef.org/crc/files/Rights_overview.pdf Committee on Evaluation of Children's health, National Research Council. (2004). Executive Summary: <i>Children's health, the Nation's wealth: Assessing and improving child health.</i> http://www.ncbi.nlm.nih.gov/books/NBK92197/
Activity 2	Due Sept 30	Family's Budget	
Web conference with Tom Warshawski, Chair of Child Obesity Foundation	Sept. 29	Advocating for child health policies – Sugar sweetened beverages & child obesity	de Ruyter, J. C., Olthof, M. R., Seidell, J. C., & Katan, M. B. (2012). A trial of sugar-free or sugar-sweetened beverages and body weight in children. <i>New England</i>

			<p><i>Journal of Medicine, 367, 1397-1406.</i></p> <p>Tirosh, A., Shai, I., Afek, A., et al. (2011). Adolescent BMI trajectory and risk of diabetes versus coronary disease. <i>New England Journal of Medicine, 364, 1315-1325.</i></p>
<p>Web conference Chris Loock</p>	<p>Oct 6</p>	<p>Nutrition and food security – RICHER program in the DTES</p>	<p>Marmot, M. J., & Allen, J. J. (2014). Social determinants of health equity. <i>American Journal of Public Health, 104(S4), S517-S519.</i></p> <p>James J. Heckman and Dimitriy V. Masterov, 2007 The Productivity Argument for Investing in Young Children http://jenni.uchicago.edu/human-inequality/papers/Heckman_final_all_wp_2007-03-22c_jsb.pdf</p> <p>Davis K, Stremikis K, Squires D, Schoen C. (2014) Mirror, Mirror on the Wall: How the Performance of the US Health Care System Compares Internationally. The Commonwealth Fund. http://www.commonwealthfund.org/~media/files/publications/fund-report/2014/jun/1755_davis_mirror_mirror_2014.pdf</p> <p>Loock, C, Suleman, S, Lynam, J, Scott, L, & Tyler, I. Linking In & Linking Across using a RICHER Model: Social Pediatrics and Inter-professional Practices</p>

			<p>at UBC. UBC Medical Journal, (March 2016). https://ubcmedicaljournal.files.wordpress.com/2016/03/v7i2-feature-2.pdf</p> <p>Lynam, M.J., Scott, L., Loock, C.L., Wong, S. (2011). The RICHER Social Pediatrics Model: Fostering Access and Reducing Inequities in Children's Health, Healthcare Quarterly. 14 Special Issue, (3): 41-56. http://www.longwoods.com/content/22576</p>
Activity 4	Due Oct 7	Family's Community	
Face-to-Face #2	Thurs, Oct 13		Readings/Online material
Module 2			
8:30-9:45 Child health data	Pippa Rowcliffe (HELP)	Sources of data on child health, considerations and limitations	
10:00-11:00 Child health indicators	Maureen O'Donnell		
11:00-12:15 Community & built environment	Meghan Winters		Christian, H., Zubrick, S. R., Foster, S., et al. (2015). The influence of the neighborhood physical environment on early child health and development: A review and call for research. <i>Health & Place</i> , 33, 25-36.
1:00-2:00 Mental Health	Jana Davidson	Childhood mental health challenges	Waddell, C., Shepherd, C., & McLauchlin, G. (2008). Creating mentally healthy communities, starting with

			<p>children (pp. 45-58). In <i>Mentally healthy communities: A collection of papers</i>. Canadian Institute for Health Information (Ed.). Ottawa, ON: CIHI. https://secure.cihi.ca/free_products/mentally_healthy_communities_en.pdf</p> <p>Evergreen: A child and youth mental health framework for Canada. http://www.mentalhealthcommission.ca/English/system/files/private/t/C%2526Y_Evergreen_Framework_ENG.pdf</p> <p>Institute for Healthcare Improvement. (2003). The breakthrough series: IHI's Collaborative model for achieving breakthrough improvement.</p>
2:00-3:00 Aboriginal Health	Kayla Serrato (FNHA)	Health policy context	
3:15-4:15 Why molecules matter	Tim Oberlander	What neuroscience can teach us about Donald Trump	
4:15-4:30 Wrap-up	Mariana Brussoni & Shazhan Amed		
Web-based	DATES		Readings/Online material
Activity 5	Due Oct 14	Family's Food & Nutrition	<p>Kershaw, P. (2011). Does Canada work for all generations? http://earlylearning.ubc.ca/media/publications/Family%20Policy%20Reports%20and%20Resources/does_can</p>
Activity 6	Due Oct 21	Family's Health	

			ada work for all generations bc.pdf Hertzman C. The significance of early childhood adversity. <i>Paediatrics and child health</i> . 2013 March 18(3): 127-128. Shonkoff JP, Garner AS. The Lifelong Effects of Early Childhood Adversity and Toxic Stress. <i>Pediatrics</i> . 2012 Jan; 129(1):e232-246.
Web conference Sandy Whitehouse	Nov 3	Transition from pediatric to adult health services	Whitehouse, S., Brodie, L., & Towns, S. (2012). Transition from paediatric to adult care in chronic illness. Chapter 13.
Face-to-Face #3	Thursday Nov 17		Readings/Online material
Module 3			
9:00-10:00 Nutrition policies	Candice Rideout		Vanderlee, L., Goodman, S., Sae, Y. W., & Hammond, D. (2012). Consumer understanding of calorie amounts and serving size: Implications for nutritional labeling. <i>CJPH, 103</i> (5), e327-31. Mullally, M. L., Taylor, J. P., et al. (2010). A province-wide school nutrition policy and food consumption in elementary schools in PEI. <i>CJPH, 101</i> (1), 40-3. Jessri, M., & L'Abbe, M. R. (2015). The time for an updated Canada Food Guide has arrived. <i>Appl Physiol Nutr Metab, 40</i> (8), 854-7.

10:00-11:30 Services & Service systems relevant to child health	Maureen O'Donnell		<p>UNICEF Canada. Stuck in the middle. http://www.unicef.ca/sites/default/files/imce_uploads/TAKE%20ACTION/ADVOCATE/DOCS/unicef_rc_11_infographic_0.pdf</p> <p>Crandall W, Kappelman MD, Colletti RB et al. ImproveCareNow: The development of a pediatric inflammatory bowel disease improvement network. <i>Inflammatory Bowel Disease</i> 2011; 17:450-457.</p> <p>Dharmar M, Romano PS, Kuppermann et al. Impact of Critical Care Telemedicine Consultations on Children in Rural Emergency Departments. <i>Critical Care Medicine</i> 2013; 41:2388-2395.</p> <p>Margolis P, Halfon N. Innovation networks A strategy to transform primary health care. <i>JAMA</i> 2009; 302(13): 1461-1462.</p>
Student presentations & Dragon's Den	Maureen O'Donnell Ian Pike Patti Janssen		
Course wrap-up & feedback	Mariana Brussoni & Shazhan Amed		
Final assignments	DATES		Readings/Online material
Final policy brief paper	Due Dec 5		

August 12, 2016

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