



**UNIVERSITY OF TORONTO**  
**DALLA LANA SCHOOL OF PUBLIC HEALTH**

# **External Review of the Dalla Lana School of Public Health**

## **APPENDICES**

**December 1, 2010**

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# Faculty

**Appendix 1: List of Faculty**

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2009/10**

## Appendix 1: List of Faculty

### Dalla Lana School of Public Health - Core\* faculty by division, status and rank with graduate student supervision level

\* core is defined as tenured, tenure stream, contractually-limited term appointment (CLTA) or part-time academic appointment. Those emeritus faculty that continue to teach and supervise students have also been included here.

Division of BIostatistics (7 faculty)			
Status	Rank	Name	SGS Status
Tenured Faculty (6)	Professor (4)	Corey, Paul	Full
		Escobar, Michael	Full
		Lou, Wendy	Full
		Stafford, Jamie	Full
	Associate Professor (2)	Kustra, Rafal	Associate
		Sun, Lei	Full
Senior Research Associate	Research Associate (1)	Thorpe, Kevin	Associate

Division of EPIDEMIOLOGY (19 faculty)			
Status	Rank	Name	SGS Status
Tenured Faculty (3)	Professor (2)	Badley, Elizabeth	Full
		Young, Kue	Full
	Associate Professor	Cole, Donald	Full
Tenure Stream (4)	Associate Professor	Fisman, David	Full
	Assistant Professor (3)	Bondy, Susan	Full
		Gagnon, France	Associate
		Gesink, Dionne	Associate
CLTA (9)	Professor (5)	Ferrence, Roberta	Full
		Mustard, Cameron	Full
		Narod, Steven	Full
		Rehm, Jurgen	Full
		Remis, Robert	Full
	Associate Professor (3)	Cohen, Joanna	Full
		Millson, Margaret	Full
		Scott, Fran	Associate
Assistant Professor	Hall, Elizabeth	Associate	
Emeritus (3)	Emeritus (3)	Baines, Corneila	Emeritus
		Chipman, Mary	Emeritus
		Miller, Anthony	Emeritus

<b>INTERDISCIPLINARY Division (1 faculty)</b>			
<b>Status</b>	<b>Rank</b>	<b>Name</b>	<b>SGS Status</b>
Part-time Academic App	Associate Professor	Harvey, Bart	Full

<b>Division of OCCUPATIONAL &amp; ENVIRONMENTAL HEALTH (9 faculty)</b>			
<b>Status</b>	<b>Rank</b>	<b>Name</b>	<b>SGS Status</b>
Tenured Faculty (1)	Associate Professor	Scott, James	Associate
CLTA (7)	Professor	Holness, Linn	Full
	Associate Professor (3)	Hosein, Roland	Associate
		Sass-Kortsak, Andrea	Full
		Silverman, Frances	Full
	Assistant Professor (2)	Bozek, Paul	Associate
		House, Ron	Associate
Adjunct	Ceolin, Lissa	Associate	
Emeritus (1)	Emeritus (1)	Purdham, James	Full

<b>Division of SOCIAL &amp; BEHAVIOURAL HEALTH SCIENCES (24 faculty)</b>			
<b>Status</b>	<b>Rank</b>	<b>Name</b>	<b>SGS Status</b>
Tenured Faculty (7)	Professor (4)	Calzavara, Liviana	Full
		Eakin, Joan	Full
		Ferris, Lorraine	Full
		Robertson, Ann	Full
	Associate Professor (3)	Einstein, Gillian	Full
		McDonough, Peggy	Full
		Poland, Blake	Full
Tenure Stream (2)	Associate Professor	Strike, Carol	Full
	Assistant Professor	Siddiqi, Arjumand	Associate
CLTA (13)	Professor (4)	Benatar, Solomon	Full
		Daar, Abdullah	Full
		Goodstadt, Michael	Full
		Myers, Ted	Full
	Associate Professor (2)	Abuelaish, Izzeldin	Full
		Schwartz, Robert	Associate
	Assistant Professor (7)	Ahmad, Farah	Associate
		Forman, Lisa	Associate
		Jackson, Suzanne	Associate
		Kaufman, Pamela	None
		Keelan, Jennifer	Associate
		Norman, Cameron	Associate
		Thorsteinsdottir, Halla	Associate
Emeritus (2)	Emeritus (2)	Chalin Clark, Catherine	Full
		Coborn, David	Emeritus

**Dalla Lana School of Public Health - status, cross, adjunct and emeritus faculty by division, status and rank with graduate student supervision level**

<b>Division of BIOSTATISTICS (43 faculty)</b>			
<b>Status</b>	<b>Rank</b>	<b>Name</b>	<b>SGS Status</b>
Emeritus (2)	Emeritus (2)	Andrews, David	Emeritus
		Hseih, John	Emeritus
Status Appointment (32)	Professor (2)	Bull, Shelley	Full
		Willan, Andrew	Full
	Associate Professor (5)	Beyene, Joseph	Associate
		Greenwood, Celia	Full
		Paterson, Andrew	Associate
		Raboud, Janet	Full
		Tomlinson, George	Full
	Assistant Professor (22)	Abdoell, Mohamed	Associate
		Binns, Malcolm	Associate
		Boyle, Eleanor	Associate
		Briollais, Laurent	Associate
		Brown, Patrick	Associate
		Casanova, Amparo	Associate
		Dupuis, Annie	Associate
		Gardner, Sandra	Associate
		Hamid, Jemila	Associate
		Hogg-Johnson, Sheilah	Full
		Jiang, Depeng	Associate
		Lockwood, Gina	Associate
		Nisenbaum, Rosane	Associate
		Panzeralla, Tony	Associate
		Pintile, Melina	Associate
		Steenstra, Ivan	
		Stephens, Derek	Associate
		Sun, Ye	Associate
		Sutradhar, Rinku	Associate
		Taback, Nathan	Associate
	Tolusso, David		
	Xu, Wei	Associate	
	Lecturer (3)	Arenovich, Tamara	Associate
		Manno, Michael	None
		Wang, Lisa	Associate
Adjunct Appointment (2)	Adjunct (1)	Yi, Qilong	Associate
	Adjunct Lecturer (1)	Moore, Ian	Associate
Cross Appointed (7)	Professor (4)	Evans, Michael	Full
		Knight, Keith	Full
		Neal, Radford	Full

		Tritchler, David	Full
	Associate Professor (2)	Austin, Peter	Associate
		Minkin, Salomon	Full
	Assistant Professor (1)	Moineddin, Rahim	Associate

<b>Division of EPIDEMIOLOGY (85 faculty)</b>			
<b>Status</b>	<b>Rank</b>	<b>Name</b>	<b>SGS Status</b>
Emeritus (5)	Emeritus (5)	Leake, James	Emeritus
		Ashley, Mary Jane	Emeritus
		Clarke, E. Aileen	Emeritus
		Eyssen, Gail	Full
		Shah, Chandrakant	Emeritus
Status Appointment (52)	Professor (12)	Cassidy, David	Full
		Corey, Mary	Full
		Goel, Vivek	Full
		Jha, Prabhat	Associate
		Kreiger, Nancy	Full
		Loisel, Patrick	Full
		Marrett, Loraine	Full
		McLaughlin, John	Full
		O'Campo, Patricia	Full
		Palmer, Lyle	Full
		Shannon, Harry	Full
		To, Teresa	Full
	Associate Professor (11)	Chiarelli, Anna	Full
		Côté, Pierre	Full
		Cotterchio, Michelle	Full
		Harris, Shelley	Full
		Holowaty, Eric	Associate
		Jain, Meera	
		Johnson, Ian	Associate
		Knight, Julia	Full
		Mann, Robert	Full
		Pron, Gaylene	Associate
		Smylie, Janet	Full
	Assistant Professor (25)	Agha, Mohammad	Associate
		Bassani, Diego	Associate
		Bassil, Kate	Associate
		Bilotta, Rose	Associate
		Coleman, Brenda	
		De, Prithwish	Associate
		Deeks, Shelley	Associate
		Gournis, Effie	Associate
		Greer, Amy	

		Hung, Rayjean	Full	
		Hyman, Ilene	Associate	
		Kirsh, Victoria	Associate	
		Kristman, Vicki	Associate	
		Manuel, Douglas	Associate	
		Pole, Jason	Associate	
		Popova, Lana	Associate	
		Rea, Elizabeth	Associate	
		Reynolds, Donna	None	
		Rosella, Laura	Associate	
		Scott, Helen	Associate	
		Seary, Andrew		
		Shankardass, Ketan	Associate	
		Smith, Lesbia	Associate	
		Smith, Peter	Associate	
		Strug, Lisa	Associate	
		Lecturer (4)	Berstein, Joyce	None
			Ibrahim, Salahadin	Associate
Parthimos, Margie	Associate			
Pennick, Victoria	Associate			
Adjunct Appointment (4)	Adjunct (3)	D'Cunha, Colin	None	
		Koo, Malcolm	None	
		McGurran, John	None	
		Pasut, George	Associate	
	Adjunct Lecturer	Walker, Janice	Associate	
Cross Appointed (24)	Professor (6)	Beitchman, Joseph	Full	
		Grunfeld, Eva	Full	
		Karmali, Mohamed	Full	
		McGeer, Allison	Full	
		Olivieri, Nancy	Full	
		Rabeneck, Linda	Full	
	Associate Professor (11)	Cairney, John	Associate	
		Cheung, Angela	Full	
		Colantonio, Angela	Full	
		Crowcroft, Natasha	Associate	
		Glazier, Richard	Full	
		Hwang, Stephen	Associate	
		Jaglal, Susan	Associate	
		Krueger, Paul		
		Parekh, Rulan	Associate	
		Paszat, Lawrence	Associate	
		Upshur, Ross	Associate	
	Assistant Professor (6)	Dunn, James	Full	
		Hanley, Anthony	Associate	

		Jin, Yaping	None
		Kwong, Jeffrey	Associate
		Liu, Geoffrey	Associate
		Rhodes, Anne	Associate
	Lecturer	Boucher, Beatrice	Associate

<b>INTERDISCIPLINARY Division (46 faculty)</b>			
<b>Status</b>	<b>Rank</b>	<b>Name</b>	<b>SGS Status</b>
Emeritus (1)	Emeritus	Sakinofsky, Issac	Full
Status Appointment (9)	Professor (3)	Gliksman, Louis	Full
		Graham, Kathryn	Associate
		Sibbald, Gary	Associate
	Associate Professor	Willison, Donald	Associate
	Assistant Professor (5)	De Wit, David	
		Manson, Heather	
		Turner, Nigel	Associate
		Wells, Samantha	
		Zack, Martin	Associate
Adjunct Appointment (2)	Adjunct	Chaban, Michele	Associate
	Adjunct Lecturer	Orsted, Heather	Associate
Cross Appointed (32)	Professor (6)	Batty, Helen	Associate
		Davis, Dave	Associate
		Levinson, Wendy	Full
		Orbinski, James	Associate
		Rosser, Walter	Full
		Silver, Ivan	None
		Tarasuk, Valerie	Full
		Associate Professor (10)	Glover Takahashi, Susan
	Holzapfel, Stephen		Associate
	Lieff, Susan		Associate
	Oandasan, Ivy		Associate
	Rachlis, Michael		Associate
	Ratnapalan, Savithiri		Associate
	Rush, Brian		Full
	Talbot, Yves		Associate
	Watson, William		Associate
	Whittingham, Jacqueline		None
	Assistant Professor (16)	Ellison, Philip	Associate
		Frankford, Rachel	Associate
		Grill, Allan	
		Handford, Curtis	Associate
		Holmes, Candice	Associate
		Nathanson, Cynthia	Associate
Pellizzari, Rosana		None	
Pimlott, Nicholas		Associate	

		Richardson, Denyse	Associate
		Roberts, Michael	None
		Rouleau, Katherine	Associate
		Selby, Peter	Associate
		Warner, Jessica	Associate
		Windrim, Patricia	Associate
		Woo, Kevin	Associate
		Yu, Catherine	Associate
	Lecturer	Ghavam-Rassoul, Abbas	Associate
Other (2)	Lecturer	Fox, Ann	Associate
	Lecturer	Morris, Melanie	

<b>Division of OCCUPATIONAL &amp; ENVIRONMENTAL HEALTH (30 faculty)</b>			
<b>Status</b>	<b>Rank</b>	<b>Name</b>	<b>SGS Status</b>
Status Appointment (19)	Associate Professor (2)	Bigelow, Philip	Associate
		Copes, Ray	Associate
	Assistant Professor (13)	Brook, Jeffrey	None
		Campbell, Monica	Associate
		Drummond, Ian	Associate
		Gorman, David	Associate
		Gower, Stephanie	Associate
		Li-Muller, Angela	Associate
		Liss, Gary	Associate
		McQuillan, Robert	Associate
		Muc, Anthony	None
		Shain, Martin	Associate
		Summerbell, Richard	Associate
		Vanderlinden, Loren	Associate
		Villeneuve, Paul	Associate
	Lecturer (4)	Fortin, Claire Marie	Associate
		Hendriks, Fred	Associate
		Kalabis, Grayzna	Associate
		Kudla, Irene	Associate
Adjunct Appointment (4)	Adjunct	Roy, Marie	None
	Adjunct Lecturer (3)	Behar, Alberto	
		Halton, David	Associate
	White, Paul	Associate	
Cross Appointed (7)	Professor (4)	Abel, Sharon	Full
		Diamond, Miriam	Associate
		Evans, Greg	Full
		Tarlo, Susan	Full
	Assistant Professor (3)	Abelsohn, Alan	Associate
		Finkelstein, Murray	None
		Scott, Jeremy	Associate

Division of SOCIAL & BEHAVIOURAL HEALTH SCIENCES (88 faculty)			
Status	Rank	Name	SGS Status
Emeritus (4)	Emeritus (4)	Badgley, Robin	Emeritus
		Kalnins, Ilze	Full
		Kelner, Merrijoy	Emeritus
		Marshall, Victor	Emeritus
Status Appointment (46)	Professor (3)	Frank, Arthur	Full
		Greaves, Lorraine	Associate
		Sacker, Amanda	Associate
	Associate Professor (8)	Adlaf, Edward	Associate
		Allison, Ken	Full
		Ashbury, Fred	Associate
		Church, Kathryn	Associate
		Friedman, Samuel	Full
		Garcia, John	Associate
		Giesbrecht, Norman	Associate
		Gignac, Monique	Full
	Assistant Professor (30)	Boutilier-Dean, Marie	Associate
		Braitstein, Paula	Associate
		Breslin, Curtis	Associate
		Callaghan, Russell	Associate
		Chatwood, Susan	Associate
		Gould, Judy	Associate
		Hart, Trevor	Associate
		Howlett, Roberta (Robbi)	Associate
		Irlbacher-Fox, Stephanie	Associate
		Kakuma, Ritsuko (Ritz)	
		Khenti, Akwatu	Associate
		Kontos, Pia	Associate
		Korn, David	None
		Kosny, Agnieszka	Associate
		Lavery, James	Full
		Leatherdale, Scott	Associate
		Lindsay, Sally	Associate
		Longo, Chirstopher	Associate
		MacEachen, Ellen	Associate
Mason, Robin		Associate	
Matheson, Flora			
McPherson, Amy	Associate		
McVey, Gail	Associate		
Murray, Stuart			
Polzer, Jessica	Associate		
Rudman, Deborah	Associate		
Scott-Marshall, Heather	Associate		
Shakya, Yogendra	Associate		

		Tompa, Emile	Associate	
		Travers, Robb	Associate	
	Lecturer (3)	Edwards, Richard	Associate	
		Hershfield, Larry	Associate	
		Campbell, Kent	Associate	
Adjunct Appointment (5)	Adjunct (4)	Draisey, Rebecca	None	
		Kang, Lai-Yi	None	
		Pakes, Barry	Associate	
		Singh, Jerome	Associate	
	Adjunct Lecturer	Husbands, Winston		
Cross Appointed (29)	Professor (8)	Birn, Anne-Emanuelle	Full	
		Cunningham, John	Full	
		Jadad, Alejandro	Full	
		McKeever, Patricia	Full	
		Muntaner, Carles	Full	
		Shaw, Brian	Full	
		Vachon, Mary	Full	
		Wheaton, Blair	Full	
		Associate Professor (12)	Angus, Janet	Associate
			Barrera, Maria	Associate
			Boydell, Katherine	Associate
			Friedman, Steven	Associate
			Gastaldo, Denise	Associate
			Jacobson, Nora	Associate
			Krym, Valerie	
			MacNeill, Margaret	Full
			McElhinny, Bonnie	Full
			Ross, Lori	Associate
			Sullivan, Terrence	Associate
			Yoshida, Karen	Full
		Assistant Professor (9)	Albert, Mathieu	Associate
			Barwick, Melanie	Associate
			Franché, Renee-Louise	Associate
			Ginsburg, Ophira	Associate
			Hamilton, Hayley	Associate
			Magee, William	Associate
			Nixon, Stephanie	Associate
			Quinonez, Carlos	Associate
			Thompson, Alison	Associate
	SGS-ONLY (4)	Professor	Polatajko-Howell, Helene	Full
Associate Professor (3)		Fox, Bonnie	Full	
		Peter, Elizabeth	Full	
		Rappolt, Susan	Full	

Faculty without a divisional assignment (56 faculty)			
Status	Rank	Name	SGS Status
Emeritus (5)	Emeritus (5)	Hewitt, David	Emeritus
		Le Riche, Harding	Emeritus
		Osborn, Richard	Emeritus
		Wigdor, Blossom	Emeritus
Status Appointment (15)	Professor	Lyons, Renee	Full
	Associate Professor (3)	DuMont, Janice	Associate
		Gibson, Brian	Associate
		Heller, James	None
	Assistant Professor (9)	Banerji, Anna	Associate
		Bercovitz, Kim	Associate
		Chiavetta, JoAnne	None
		Finkelstein, Michael	Associate
		Hyder, S. M.	Associate
		Kotsopoulos, Joanne	Associate
		Lee, Colin	None
		Mai, Verna	Associate
		Yuan, Lillian	Associate
	Lecturer (2)	Keifer, Lori	Associate
Schwartz, Roberta		Associate	
Adjunct Appointment (26)	Adjunct (25)	Armstrong, Irene	
		Bouchard, Francoise	
		De Villa, Eileen	None
		Dooling, Kathleen	
		Dubey, Vinita	None
		El-Nasser, Ziad Ali	None
		Gardner, Charles	None
		King, Arlene	None
		Kurji, Karimmohamed	
		Kyle, Robert	None
		McKeown, David	None
		Moloughney, Brent	None
		Mowat, David	
		Nosal, Robert	None
		Noseworthy, A	None
		Pollett, Graham	
		Rusen, I D	Associate
		Shahin, Rita	None
		Shapiro, Howard	None
		Timmings, Carol	
Ward, Megan	None		
Weir, Erica			

		Williams, David	
		Wong, Thomas	None
		Yaffe, Barbara	None
	Adjunct Lecturer	Chirs, Allison	
Cross Appointed (10)	Professor (5)	Ferguson, H Bruce	Full
		Naylor, David	Full
		Noyek, Arnold	Full
		Sellen, Daniel	Full
		Zlotkin, Stanley	Full
	Associate Professor (3)	Cusimano, Michael	Full
		Freeman, Risa	Associate
		Kahan, Meldon	
	Assistant Professor (2)	Meier, Rosemary	Associate
		O'Grady, Laura	

## Appendix 2: History of Enrolment Data for all Courses 2005/6 to 2009/10

\* denotes courses that we originally offered as a reading course

Course Code	Division	Course Weight	Course Title	Enrolment 2005/06	Enrolment 2006/07	Enrolment 2007/08	Enrolment 2008/09	Enrolment 2009/10
CHL 5004	PHS	0.5	Intro to Public Health	83	106	109	125	138
CHL 5101	SBHS	0.5	Social Theory and Health	9	8	12	11	11
CHL 5102	SBHS	0.5	Social and Political Forces in Health Care	10	10	8	7	9
CHL 5109	SBHS	0.5	Gender and Health	4	not offered	4	16	13
CHL 5110	SBHS	0.5	Theory and Practice of Program Evaluation	24	17	17	25	35
CHL 5111	SBHS	0.5	Advanced Qualitative Research Methods	not offered	not offered	not offered	24	not offered
CHL 5115	SBHS	0.5	Qualitative Analysis & Interpretation	15	10	11	7	9
CHL 5117	SBHS	0.5	A Global Perspective on the Health of Women and Children	22	12	17	12	18
CHL 5118	SBHS	0.5	International Health, Human Rights and Peace-Building	15	12	9	6	11
CHL 5120	SBHS	0.5	Population Health Perspectives on Mental Health and Addictions	6	not offered	not offered	12	12
CHL 5121	SBHS	0.5	Genomics, Bioethics and Public Policy	not offered	8	5	not offered	5
CHL 5122	SBHS	0.5	Qualitative Research Practice	6	6	8	not offered	10
CHL 5123	SBHS	0.5	Issues in Transdisciplinary Research and the Health of Marginalized Populations	3	4	2	5	not offered
CHL 5124	SBHS	0.5	Public Health Ethics (first offered as a course in 2008/09)	*	*	*	7	not offered
CHL 5201	BIOSTATS	0.5	Intro to Biostatistics I	26	37	35	34	38
CHL 5202	BIOSTATS	0.5	Biostatistics II	21	33	33	25	33
CHL 5203	BIOSTATS	0.5	Public Health Research Methods	33	38	45	43	52

Course Code	Division	Course Weight	Course Title	Enrolment 2005/06	Enrolment 2006/07	Enrolment 2007/08	Enrolment 2008/09	Enrolment 2009/10
CHL 5204	BIOSTATS	0.5	Survey Methods in the Health Sciences II	not offered	not offered	not offered	not offered	9
CHL 5207	BIOSTATS	1.0	Lab in Statistical Design and Analysis	5	13	8	11	10
CHL 5208	BIOSTATS	1.0	Lab in Statistical Design & Analysis	2	7	3	2	2
CHL 5209	BIOSTATS	0.5	Survival Analysis	3	10	24	32	26
CHL 5210	BIOSTATS	0.5	Categorical Data Analysis	17	24	24	32	26
CHL 5220	BIOSTATS	0.5	Community Health Appraisals Methods I (CHAM I)	38	39	33	42	45
CHL 5221	BIOSTATS	0.5	Community Health Appraisals Methods II (CHAM II)	25	29	21	14	49
CHL 5222	BIOSTATS	0.5	Longitudinal Data Analysis	not offered	not offered	16	not offered	not offered
CHL 5223	BIOSTATS	0.5	Applied Bayesian Methods	4	not offered	3	10	11
CHL 5224	BIOSTATS	0.5	Statistical Genetics	11	14	6	11	17
CHL 5225	BIOSTATS	0.5	Advanced Statistical Methods for Clinical Trials	11	7	4	not offered	9
CHL 5250	BIOSTATS	0.5	Biostatistics Seminar (first offered 2007/08)	n/a	n/a	7	10	15
CHL 5300	PHP	0.5	Public Health Policy (first offered 2007/08)	n/a	n/a	59	58	53
CHL 5308	PHP	0.5	Tools and Approaches for Public Health Policy Analysis and Evaluation (first offered in 2009/10)	n/a	n/a	n/a	n/a	18
CHL 5401	EPI	0.5	Intro to Epidemiology	26	36	42	33	37
CHL 5402	EPI	0.5	Epidemiological Methods II	17	29	29	23	31
CHL 5403	EPI	0.5	Epidemiology of Non-Communicable Diseases	8	7	17	13	10

Course Code	Division	Course Weight	Course Title	Enrolment 2005/06	Enrolment 2006/07	Enrolment 2007/08	Enrolment 2008/09	Enrolment 2009/10
CHL 5404	EPI	0.5	Research Methods in Epidemiology I	5	6	6	5	5
CHL 5405	EPI	0.5	Health Trends and Surveillance	21	27	30	27	29
CHL 5406	EPI	0.5	Quantitative Methods for Biomedical Research	6	3	9	9	4
CHL 5408	EPI	0.5	Research Methods II	5	4	7	4	5
CHL 5409	EPI	0.5	Cancer Epidemiology	7	not offered	8	not offered	10
CHL 5410	EPI	0.5	Occupational Epidemiology	8	10	10	11	10
CHL 5411	EPI	0.5	International Health	20	14	21	13	19
CHL 5412	EPI	0.5	Communicable Disease Epidemiology, Prevention and Control: Principles	23	16	14	21	13
CHL 5413	EPI	0.5	Public Health Sanitation	12	7	20	19	not offered
CHL 5414	EPI	0.5	Additional Topics in Epidemiology of Non-Communicable Diseases	not offered	3	not offered	not offered	not offered
CHL 5415	EPI	0.5	Communicable Disease Epidemiology, Prevention and Control: Practice	19	15	16	17	9
CHL 5416	EPI	0.5	Environmental Epidemiology	7	11	11	not offered	6
CHL 5417	EPI	0.5	Tobacco and Health: From Cells to Society	10	4	16	8	6
CHL 5418	EPI	0.5	Scientific Overviews in Epidemiology	20	23	28	26	32
CHL 5419	EPI	0.5	Empirical Perspectives on Social Organization and Health	8	3	2	2	not offered
CHL 5420	EPI	0.5	Global Research Methods	not offered	8	9	7	3
CHL 5421	EPI	0.5	Aboriginal Health	4	7	10	14	10

Course Code	Division	Course Weight	Course Title	Enrolment 2005/06	Enrolment 2006/07	Enrolment 2007/08	Enrolment 2008/09	Enrolment 2009/10
CHL 5423	EPI	0.5	Doctoral Seminar Series in Epidemiology	not offered	5	11	11	10
CHL 5424	EPI	0.5	Advanced Quantitative Methods in Epidemiology (first offered in 2008/09)	n/a	n/a	n/a	6	4
CHL 5430	EPI	0.5	Fundamentals of Genetic Epidemiology (first offered 2009/10)	n/a	n/a	n/a	*	3
CHL 5601	INTERDIS	0.5	Teaching Evidence Based Family Medicine in Clinical Setting	3	not offered	3	3	7
CHL 5602	INTERDIS	0.5	Working with Families in Family Medicine	3	6	2	4	4
CHL 5603	INTERDIS	1.0	Social, Political and Scientific Issues in Family Medicine	2	4	11	10	15
CHL 5604	INTERDIS	0.5	Human development in Family Medicine	4	5	4	4	2
CHL 5605	INTERDIS	0.5	Research Issues in Family Medicine/Primary Care	8	7	7	2	1
CHL 5607	INTERDIS	0.5	Teaching & Learning in the Health Professions – Principles and Theories	not offered	not offered	2	not offered	not offered
CHL 5608	INTERDIS	0.5	Teaching and Learning in Health Professions	not offered	not offered	2	not offered	not offered
CHL 5609	INTERDIS	0.5	Continuing Education for the Health Professionals I	not offered	not offered	6	17	10
CHL 5623	INTERDIS	0.5	Practical Management Concepts and Cases In Leading Small Health Organizations	not offered	not offered	not offered	4	not offered
CHL 5630	INTERDIS	1.0	Wound Prevention and Care	not offered	not offered	not offered	1	5
CHL 5700	GH	0.5	Global Public Health	not offered	11	12	18	23
CHL 5701	GH	0.5	Collaborative Program Global Health (first offered 2008/09)	n/a	n/a	n/a	6	11

Course Code	Division	Course Weight	Course Title	Enrolment 2005/06	Enrolment 2006/07	Enrolment 2007/08	Enrolment 2008/09	Enrolment 2009/10
CHL 5702	GH	0.5	History of International Health (initially a reading course, first offered as a graduate course in 2008/09)	n/a	n/a	n/a	7	not offered
CHL 5801	SBHS	0.5	Health Promotion	16	21	26	27	33
CHL 5803	SBHS	0.5	Health Promotion Strategies	20	21	23	not offered	32
CHL 5804	SBHS	0.5	Health Behaviour Change	12	13	21	20	22
CHL 5805	SBHS	0.5	Critical Issues in Health Promotion	15	12	14	22	21
CHL 5806	SBHS	0.5	Health Promotion Field Research	16	16	12	16	12
CHL 5902	OEH	0.5	Advanced Occupational Hygiene	9	11	10	9	10
CHL 5903	OEH	0.5	Environmental Health	11	13	21	18	12
CHL 5904	OEH	0.5	Occupational Health and Safety—Legal and Social Context	7	15	23	15	16
CHL 5907	OEH	0.5	Physical Agents II - Radiation	10	11	10	9	11
CHL 5910	OEH	0.5	Occupational and Environmental Hygiene I	14	12	16	9	14
CHL 5911	OEH	0.5	Occupational and Environmental Hygiene II	12	10	11	10	10
CHL 5912	OEH	0.5	Industrial Toxicology	11	9	10	11	9
CHL 5914	OEH	0.5	Physical Agents I - Industrial Noise and Vibration	14	11	10	12	10
CHL 5915	OEH	0.5	Control of Occupational Hazards	12	10	11	10	12
CHL 5917	OEH	0.5	Concepts in Safety Management	10	12	9	8	12
CHL 5918	OEH	0.5	Biological Hazards in the Workplace Community (first offered as a course in 2009/10)	*	n/a	*	10	10

List of Reading Courses Offered								
Course Code	Division	Course Weight	Course Title	Enrolment 2005/06	Enrolment 2006/07	Enrolment 2007/08	Enrolment 2008/09	Enrolment 2009/10
CHL 7001	BIOSTATS	0.5	Mathematical Foundations of Biostatistics					x
CHL 7001	BIOSTATS	0.5	Models and Inference for Spatial and Longitudinal Data					x
CHL 7001	BIOSTATS	0.5	Simulation Methods	x	x	x	x	x
CHL 7001	BIOSTATS	0.5	Spatial Modeling		x			
CHL 7001	BIOSTATS	0.5	Special Topics in Applied Statistics			x		
CHL 7001	BIOSTATS	0.5	Statistical Analysis of Microarray Data	x				
CHL 7001	BIOSTATS	0.5	Statistical Methods for Geonomics and Genomics					
CHL 7001	BIOSTATS	0.5	Statistical Methods for Geonomics and Bioinformatics			x	x	x
CHL 7001	BIOSTATS	0.5	Statistical Methods in Data Mining in Health Sciences		x			x
CHL 7001	EPI	0.5	Advanced Quantitative Methods in Epidemiology			x		
CHL 7001	EPI	0.5	Fundamentals of Genetic Epidemiology				x	
CHL 7001	EPI	0.5	Spatial Epidemiology and infectious Diseases Modelling					x
CHL 7001	GH	0.5	Health as an Engine for the Journey to Peace					x
CHL 7001	GH	0.5	Women in Countries of Conflict					x
CHL 7001	OEH	0.5	Applied Ergonomics		x	x	x	x
CHL 7001	OEH	0.5	Biological Hazards	*		*		
CHL 7001	SBHS	0.5	Advanced Topics in Social Theory and Health: Bourdieu and the Logic of Practice		x	x		
CHL 7001	SBHS	0.5	Advanced Topics in Social Theory and Health: Feminist Perspectives on the Body					x

Course Code	Division	Course Weight	Course Title	Enrolment 2005/06	Enrolment 2006/07	Enrolment 2007/08	Enrolment 2008/09	Enrolment 2009/10
CHL 7001	SBHS	0.5	Building Community Resilience					x
CHL 7001	SBHS	0.5	Health Promotion Professional Practice Development			x		
CHL 7001	SBHS	0.5	History of International Health	x	x			
CHL 7001	SBHS	0.5	Research Design in Health Promotion					x
CHL 7001	SBHS	0.5	Systems Science Perspectives in Public Health					x

# PhD Program

**Appendix 3: Course Requirements for each Specialization**

**Appendix 4: Full funding Policy for PhD students in DLSPH (2010-11)**

**Appendix 5: DLSPH Graduate Department of Public Health Sciences - Faculty of Medicine Doctoral Graduate Student - Supervisor Agreement**

**Appendix 6: PhD graduates and Thesis titles (2005-2010)**

## Appendix 3: Course Requirements for Each Specialization

### BIostatISTICS - Course Requirements

#### Required Courses:

CHL5004H	Introduction to Public Health	(0.5)
CHL5208Y	Advanced Laboratory in Statistical Design and Analysis	(1.0)
CHL5210H	Categorical Data Analysis	(0.5)
CHL5250H	Biostatistics Seminar	(0.5)
	Plus one of the following:	
CHL5209H	Survival Analysis I	(0.5)
STA2209H	Lifetime Data Modeling	(0.5)

#### Elective Courses:

CHL5222H	Longitudinal Data Analysis	(0.5)
CHL5223H	Applied Bayesian Methods	(0.5)
CHL5224H	Statistical Genetics	(0.5)
CHL5225H	Advanced Statistical Methods for Clinical Trials	(0.5)
CHL5401H	Introduction to Epidemiology	(0.5)
CHL5402H	Epidemiologic Methods II	(0.5)
STA2004Y	Design of Experiments	(0.5)
STA2101Y	Methods of Applied Statistics I	(0.5)
STA2112H	Mathematical Statistics I	(0.5)
STA2212H	Mathematical Statistics II	(0.5)
STA3000Y	Advanced Theory of Statistics	(0.5)
CHL7001H	Statistical Methods for Genomics and Bioinformatics	(0.5)
CHL7001H	Statistical Methods in Data Mining	(0.5)
CHL7001H	Spatial Modeling	(0.5)
CHL7002H	Simulation Methods	(0.5)

#### Notes:

- The above requirements apply to all students in general. There will be exceptions. In some situations, the student, in discussion with the Division Head, will be allowed to substitute alternatives for some of the courses in the required list, or be given exemptions based on their previous academic experience.
- Students may also find it useful to take other courses from the Department of Statistics, or Department of Computer Science.
- As part of the course requirement for CHL5208, all students are required to participate in practical training, which includes four hours of supervised practical work per week. This is meant to provide the student with hands-on experience in design and analysis, as encountered by applied statisticians in the workforce.

## EPIDEMIOLOGY - Course Requirements

### Required Courses (3.0)

CHL5004H	Introduction to Public Health	(0.5)
CHL5404H	Research Methods in Epidemiology I	(0.5)
CHL5406H	Quantitative Methods in Biomedical Research	(0.5)
CHL5408H	Research Methods II	(0.5)
CHL5423H	Doctoral Seminar for Epidemiology	(0.5)
CHL5424H	Advanced Quantitative Methods in Epidemiology	(0.5)

### Elective Courses (1.0)

Students are best served if their elective courses form part of a coherent package of experience. In this light, students are encouraged to choose elective courses that relate to the theme of their dissertation. For example, advanced methodological courses might be appropriate for a dissertation which involves highly complex statistical analysis; pathology courses for a dissertation which focuses more on disease process; bioethics courses for a dissertation on genetic epidemiology. Electives may also fill gaps in overall training and experience: A student with a largely social sciences background might benefit from health professional level pathology courses; a student with substantial bench-sciences training, who is interested in disease screening, might consider courses in behavioural sciences, health economics, or health policy.

Suggested courses include, but are not limited to:

CHL5250H	Special Topics in Biostatistics	(0.5)
CHL5403H	Epidemiology of Non-Communicable Diseases	(0.5)
CHL5407H	Categorical Data Analysis for Epidemiologic Studies	(0.5)
CHL5409H	Cancer Epidemiology	(0.5)
CHL5410H	Occupational Epidemiology	(0.5)
CHL5411H	International Health	(0.5)
CHL5415H	Practice of Communicable Disease Epidemiology, Prevention and Control	(0.5)
CHL5416H	Environmental Epidemiology	(0.5)
CHL5417H	Tobacco and Health: From Cells to Society	(0.5)
CHL5419H	Empirical Perspectives on Social Organization and Health	(0.5)
CHL5420H	Global Health Research Methods	(0.5)
CHL5421H	Aboriginal Health	(0.5)
CHL5450H	Special Topics in Epidemiology	(0.5)
HAD5302H	Measurement in Clinical Research	(0.5)
HAD5303H	Controlled Clinical Trials	(0.5)

## SOCIAL & BEHAVIOURAL HEALTH SCIENCES - Course requirements

### Required Courses for SSH: (3.5 FCE)

CHL5004H Introduction to Public Health Sciences	(0.5)
CHL5101H Social Theory and Health	(0.5)
CHL5102 Social and Political Forces in Health and Health Care	(0.5)
2 Methods courses	(1.0)
2 Electives	(1.0)

### Required Courses for HBS: (3.0 FCE)

CHL5004H Introduction to Public Health Sciences	(0.5)
CHL5804H Health and Behaviour Change	(0.5)
2 Methods courses (one req'd quantitative)	(1.0)
1 CHL7000H (reading course) related to thesis topic	(0.5)
1 Elective	(0.5)

### Possible Electives

CHL5109H - Gender and Health	(0.5)
CHL5421H - Aboriginal Health	(0.5)
HDP1201H - Child and adolescent Development	(0.5)
HDP3221H - Cross-Cultural Perspectives on Children's Problems	(0.5)
CHL5120H - Population Health Perspective on Mental Health & Addictions	(0.5)
CHL5124H - Public Health Ethics	(0.5)
HDP1219H - Ethical Issues in Applied Psychology	(0.5)
PHL2145H - Bioethics	(0.5)
PHL2146Y - Topics in Bioethics	(0.5)
UCS1000H - Community Development	(0.5)
SWK4422H - Social Housing and Homelessness	(0.5)
JNH5002H - Body, Health Care, Technology and Place	(0.5)
CHL5702H - History of International Health	(0.5)
NUR1083H - Comparative Politics of Health Policy in Globalizing World	(0.5)
HIS1269H - The Social History of Medicine in the 19th and 20 <sup>th</sup> Centuries	(0.5)
CHL5122H - Qualitative Research Practice	(0.5)
CHL 5115H - Qualitative Analysis and Interpretation	(0.5)
HDP3201H - Qualitative Research Methods	(0.5)
JRP1000H - Theory & Method for Qualitative Researchers: An Intro	(0.5)
CHL5308H - Tools and Approaches for PHP Analysis & Evaluation	(0.5)
CHL5420H - Global Health Research	(0.5)
NUR1028H - Introduction to Qualitative Research	(0.5)
NUR1024H - Qualitative Research: Foundations, Methods and Designs	(0.5)
NUR1025H- Doing Qualitative Research	(0.5)
SES1905H - Qualitative Approaches to Sociological Research in Education	(0.5)
TPS1834H - Qualitative Research in Higher Education	(0.5)
SOC6713H - Qualitative Method II	(0.5)
SWK6307H - Designing & Implementing Qual Social Work Research	(0.5)
CHL5424H - Advanced Quantitative Methods in Epidemiology	(0.5)
CHL5406H - Quantitative Methods for Biomedical Research	(0.5)
CHL5203H - Public Health Research Methods	(0.5)
CHL5202H - Intro Biostatistics for Students in the Biological Sciences 2	(0.5)
CHL5204H - Survey Methods in Health Sciences 2	(0.5)
CHL5403H - Epidemiology of Non-Communicable Diseases	(0.5)

CHL5408H - Research Methods in Epidemiology 2	(0.5)
CHL5418H - Scientific Overviews in Epidemiology	(0.5)
SOC6707H - Advanced Data Analysis 1	(0.5)
HAD5302H - Measurement in Clinical Research	(0.5)
HAD5737H - Tools for Implementation of Best Evidence	(0.5)
HAD5776H - Issues in Qualitative Health Services Research	(0.5)
HDP1288H - Intermediate Statistics and Research Design	(0.5)
HDP1289H - Multivariate Analysis with Applications	(0.5)
NUR1084H - Essentials in Applied Learning in Statistics	(0.5)
SWK4506H - Applied Quantitative Data Analysis for Social Workers	(0.5)

## Appendix 4: Full funding Policy for PhD students in DLSPH (2010-11)

The minimum support for students in the *funded cohort* is \$15,000 plus tuition (i.e., \$22,750 for domestic students and \$32,200 for international students in 2010-11).

### Basic Definitions

**Funded Cohort:** The funded cohort includes all full-time students, both domestic and international, in years 1-5 of a PhD program, in good academic standing.

*Note: flex-time students, medical residents and faculty on sabbatical are automatically excluded from the funded cohort. However, they may be eligible for some awards from granting agencies.*

**Student Support:** Student Support can come from *any one or a combination* of the following sources:

- Awards from external agencies such as SSHRC, NSERC, OGS, CIHR, etc.
- Internal awards such as UTO, OGSST, Connaught, some OSOTFs
- Government, International Agency and other awards for the express purpose of education.
- Stipends from supervisors and training grants to support the program (T4A income)
- Employer sponsorship

The following *are not considered sources of student support in the Faculty of Medicine:*

- Teaching Assistantships
- Research jobs not related to the student's educational program
- Casual jobs in the university
- Casual jobs outside of the university.

### Conditions of Funding

1. In order to be eligible for funding students and their supervisors must complete an annual **Progress Review** and a separate annual **Student - Supervisor Agreement** every September and confirm "satisfactory academic progress".
2. Supervisors are strongly encouraged to provide support for eligible PhD students through training grants and stipends to support their academic program (T4A income). If the supervisor can only provide partial funding, the school will augment the supervisor's stipend, to the full amount of the required minimum of \$22,750, using available University of Toronto Open Fellowship funds.
3. All students are required to apply for awards from external granting agencies. Many students are successful in receiving an external award by their second or third year.
4. Students who receive funding (i.e. a competitive award such as OGS, or supervisor support) less than \$22,750 and no other support, will receive a "top-up", from the School's University of Toronto Open funds, to achieve a total of \$22,750.
5. All students who receive a competitive award equal to or greater than \$15,000 will also receive a "bonus" of up to \$2,000 to a maximum of \$25,000 for all sources of support. (Note: The School will not provide any additional funds if the sum of external awards and supervisor support is equal to or greater than \$25,000).
6. Students who do not hold external awards, or have supervisor support, will receive \$22,750 per academic year from the School's University of Toronto Open funds.

7. Students whose funding sources change throughout the year are required to provide the School with supporting documentation and revise their Student-Supervisor Agreement. In addition, students may be required to return or decline funds in order to comply with the policies of the funding sources and/or the School. The net result will be an equal or a greater amount of student support.
8. International students are strongly encouraged to apply for support from external agencies and/or their home government. Admitted international students who do not have external and/or supervisor support will receive \$32,200 per year from the School's University of Toronto Open funds.
9. Students must be registered as a full-time degree candidate for a minimum of fourteen weeks in any term during which they hold an award. Repayment of an award is required if a student is in full-time attendance fewer than 14 weeks in any term, transfers to another graduate unit, changes to part-time status or withdraws from the program.

#### **Student Progress Review and Student-Supervisor Agreement**

The School is required to monitor and keep accurate records of the student's academic progress and funding arrangements. Personalized reports are sent to each student during the summer. The student and supervisor are required to meet, to review, update and sign/submit all documents, including:

- Progress Review and Preliminary Funding Report (paper documents sent to students via mail)
- Student-Supervisor Agreement (GradSIS on-line document to which the student is invited via email)

## Appendix 5: DLSPH Graduate Department of Public Health Sciences - Faculty of Medicine Doctoral Graduate Student - Supervisor Agreement

Completion of this agreement is required annually, commencing before initial enrolment, for all doctoral (MSc or PhD) students admitted to Graduate Departments in the Faculty of Medicine. Please read the terms and provisions carefully. Completion of this form indicates the intent of the student and supervisor to abide by these terms and provisions. This agreement is in effect until completion of, or withdrawal from the program of study, or change in supervision.

### General Conditions of Supervision

This agreement is to be renewed annually. If there are any revisions to this agreement during the year, supervisor and student will submit a revised and signed General Conditions of Agreement to the Graduate Coordinator/Associate Director, Education, Dalla Lana School of Public Health.

Both student and supervisor will make every reasonable effort to obtain full funding for the student from appropriate sources outside the department.

<i>Supervisor's Responsibilities</i>	<i>Student's Responsibilities</i>
<ul style="list-style-type: none"> <li>• The supervisor will direct the graduate program of the student facilitating timely completion of research, thesis writing and defense, in accordance with the Graduate Department's guidelines.</li> <li>• The supervisor is expected to provide mentorship and serve as an academic role model.</li> <li>• The supervisor and student together will recruit appropriate members for the supervisory committee</li> <li>• The first meeting of the supervisory committee should occur within the first 12 months of initial registration. Thereafter, formal full committee meetings should be held at least every six months.</li> <li>• The supervisor will provide the student with regular, constructive feedback on his/her performance and complete the annual progress review.</li> <li>• During any leave of absence from the University (e.g. sabbatical), the supervisor will ensure appropriate continuing supervision of the student.</li> </ul>	<ul style="list-style-type: none"> <li>• The student is responsible for becoming familiar with and adhering to the rules, policies and procedures of the Graduate Department, <a href="http://www.sph.utoronto.ca/">http://www.sph.utoronto.ca/</a>, the School of Graduate Studies <a href="http://www.sgs.utoronto.ca/">http://www.sgs.utoronto.ca/</a>, and the University <a href="http://www.governingcouncil.utoronto.ca/site3.aspx">http://www.governingcouncil.utoronto.ca/site3.aspx</a>.</li> <li>• The student in consultation with the supervisor will prepare a research plan and timetable as a basis for the program of study, including any proposed fieldwork.</li> <li>• <b>Although it is the duty of the supervisor to be available for consultation, the primary responsibility for keeping in touch rests with the student.</b></li> <li>• The student is required to apply for funding from all appropriate sources and to provide documentation to the department of all applications and successful awards.</li> <li>• The student must continue to make adequate progress toward degree completion documented by reports of the supervisory committee</li> <li>• In the Dalla Lana School of Public Health, the recommended maximum time to completion of the PhD is 5 years, including the time for thesis preparation and the final thesis defense. However, students are encouraged to complete earlier.</li> <li>• The student is expected to achieve the program milestones, as agreed with the supervisor. The timeframe may vary according to discipline, but will remain within the general SGS guidelines. Some of the usual milestones for the PhD are: <ul style="list-style-type: none"> <li>○ Completion of course work</li> <li>○ Establishment of a formal supervisory</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>committee <ul style="list-style-type: none"> <li>○ Completion of the comprehensive examination</li> <li>○ Approval of a thesis topic</li> <li>○ Defense of the dissertation</li> </ul> </li> <li>• Failure to comply with any of the conditions listed above may result in the loss of good academic standing.</li> </ul>
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## Research Safety & Ethics

Research involving human subjects, experimental animals, radioisotopes and/or bio-hazardous agents must have a formal protocol approved by the research institution (University or affiliated teaching hospital). These protocols must be available to and adhered to by the student.

### **Research Involving Human Subjects/Animals/Radioisotopes/Bio-hazardous Agents**

<http://www.sgs.utoronto.ca/Assets/governance/policies/Ethical+Conduct+in+Research+Involving+Human+Subjects.pdf>

The University of Toronto requires that all graduate student and faculty research involving human subjects be reviewed and approved by the relevant institutional Research Ethics Boards (REBs) before work can begin. Although research methodologies differ, the fundamental ethical issues and principles in research involving human subjects are common across all disciplines. The standards that must be met are set out in the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS) (<http://www.pre.ethics.gc.ca/eng/index/>). This “living” document outlines the guidelines for research involving human subjects in Canada and is the creation of the three major Canada research councils (CIHR, NSERC, SSHRC).

<http://www.research.utoronto.ca/for-researchers-administrators/ethics/>

<http://www.ehs.utoronto.ca/services/radiation.htm>

**Research Safety:** The supervisor is responsible for ensuring that relevant Occupational Health and Safety legislations and guidelines are communicated to the student and adhered to as proper laboratory and/or clinical practice. Students must attend appropriate training sessions (e.g., Laboratory Safety, Radioisotope Safety), as required by University or Research Institute policy. Supervisors are responsible for ensuring that such training is provided and undertaken by their students.

### **Sexual Harassment Guidelines and Policies**

<http://www.facmed.utoronto.ca/programs/graduate/guide/harassment.htm>

The University of Toronto has specific guidelines and policies about sexual harassment covering students both on- and off-campus. The above document addresses the guidelines and policies that apply to Faculty of Medicine students whether they are located on campus or in the affiliated hospitals and research institutes.

## Intellectual Property

The student, supervisor and members of the supervisory committee are expected to be familiar with and to adhere to the most current University of Toronto and affiliated hospital guidelines and policies relating to graduate research that include, but are not limited to, the following documents.

### Intellectual Property Guidelines:

<http://www.sgs.utoronto.ca/governance/policies/intellectualprop.htm>

### Guidelines for Faculty of Medicine Graduate Students and Supervisors in the Context of Commercialization of Inventions Based on Thesis-Related Research

<http://www.facmed.utoronto.ca/Assets/graduate/ind.pdf>

### University of Toronto Policy on Inventions:

<http://www.governingcouncil.utoronto.ca/policies/invent.htm>

### Standards of Professional Practice Behaviour for all Health Professional Students:

<http://www.governingcouncil.utoronto.ca/policies/ProBehaviourHealthProStu.htm>

## Graduate Student Stipend

The University of Toronto policy is that doctoral graduate students must receive minimum stipends during the normal graduate degree program duration, as outlined in the Graduate Unit's Funding Policy.

<p><b>Domestic Students</b></p>	<ul style="list-style-type: none"> <li>• The minimum stipend in the Graduate Department of Public Health Sciences is \$15,000 plus tuition for full time domestic PhD students. (ie \$22,750 for 2010 - 2011). This policy does not apply to flex-time PhD students.</li> <li>• The minimum stipend must be provided in the first five years of full time registration in the PhD.</li> <li>• Students are expected to compete for relevant awards from external agencies such as CIHR, OGS, NSERC, SSHRC, charitable foundations, as well as awards internal to the University including OGSST and OSOTF awards. Students must indicate below the awards to which they have/will have applied for the current academic year.</li> <li>• It is expected that both the student and supervisor will make every reasonable effort to obtain full funding for the student. If such support cannot be derived from a combination of external and internal awards and/or a stipend from the supervisor, it is the responsibility of the Graduate Department of Public Health Sciences to provide the balance.</li> <li>• If the student receives an award/fellowship that is equal to or greater than \$25,000, neither the supervisor nor the Graduate Department will provide any additional funds.</li> <li>• Salary earned as a Teaching Assistant is not part of the Graduate Student stipend in the Faculty of Medicine.</li> <li>• Full time students are expected to devote themselves their program; hence, they should not work more than 10 hours per week on duties unrelated to the academic program.</li> </ul>
<p><b>Visa Students</b></p>	<ul style="list-style-type: none"> <li>• In the case of a full time VISA student, the value of the minimum stipend is \$15,000 plus tuition. (ie \$32,200 for 2010 - 2011).</li> <li>• The minimum stipend must be provided in the first five years of full time registration in the PhD.</li> <li>• It is expected that both the student and supervisor will make every reasonable effort to obtain full funding for the student. If such support cannot be derived from a combination of external and internal awards and/or a stipend from the supervisor, it is the responsibility of</li> </ul>

	the Graduate Department of Public Health Sciences to provide the balance.
<b>Other</b>	<ul style="list-style-type: none"> <li>It is strongly recommended that a supervisor NOT employ his/her own students for duties related or unrelated to thesis research as conflict of interest between employee and employer falls outside the mandate of the student-supervisor relationship.</li> </ul>

**Note:** The Graduate Department of Public Health Sciences has a guaranteed minimum funding policy, providing T4A studentships for our doctoral stream graduate students. This guaranteed studentship is exclusive of, and may be in addition to T4 taxable income that graduate students may earn from teaching or research assistantships. To ensure that you receive this minimum studentship funding and to ensure that the funds are administered in accordance with the terms of their sponsors, your Social Insurance Number (SIN) will be used in GradSIS only to collect information about your studentship stipends paid to you from various sources. Some sources from which information will be collected using your SIN include the University's Repository of Student Information (ROSI), the University's Human Resources Information System (HRIS), our affiliated hospitals, and granting agencies. The SIN information will remain secure and will not be stored in an identifiable format.

The University of Toronto respects your privacy. Personal information that you provide to the University is collected pursuant to section 2(14) of the University of Toronto Act, 1971. It is collected for the purpose of administering admissions, registration, academic programs, university-related student activities, activities of student societies, financial assistance and awards, graduation and university advancement, and for the purpose of statistical reporting to government agencies. At all times it will be protected in accordance with the Freedom of Information and Protection of Privacy Act. If you have questions, please refer to <http://www.utoronto.ca/privacy> or contact the University Freedom of Information and Protection of Privacy Coordinator at 416-946-7303, McMurrich Building, room 104, 12 Queen's Park Crescent West, Toronto, ON, M5S 1A8.

### Appendix 6: PhD graduates and Thesis titles (2005-2010)

Year Graduated	Last Name	First Name	Thesis Title	Program	Primary Supervisor
2005	Biernacka	Joanna Monika	Statistical Methods for Studying Two Linked Disease Genes	BIOSTATS	Shelley Bull
2005	Fallah	Shafagh	Statistical Methods for Clustering Gene Expression Data	BIOSTATS	David Tritchler
2005	Flicker	Sarah	Critical Issues in Community-Based Participatory Research	SBHS	Harvey Skinner
2005	Magdenko	Luba	Societies in Transition: Alcohol Misuse and Control Policy in Ukraine	SBHS	Harvey Skinner
2005	Norman	Cameron Dale	The Web of Influence: Evaluating the Impact of Internet Interventions on Adolescent Smoking Cessation & eHealth Literacy	SBHS	Harvey Skinner
2005	Thompson	Alison	A Case Study of the Canadian Public Consultation on Xenotransplantation	SBHS	Ann Robertson
2006	Brooker	Ann-Sylvia	Dignity, Work and Health	SBHS	Joan Eakin
2006	Denny	Keith	Health As/And Social Capital: A Critical History of a Concept	SBHS	David Coburn
2006	Figueiredo	Jane Catherine	The Clinical Significance of Family History, Young Age at Diagnosis and Polymorphic Variation in Breast Cancer	EPI	Julia Knight and
2006	Hart	Corinne	The Construction of Emotion Work in Paid Home Health Care	SBHS	Joan Eakin
2006	He	Yaohua	Nonparametric Methods for Receiver Operating Characteristic (ROC) Curve Analysis in Genomic Studies and Diagnostic Medicine	BIOSTATS	Michael Escobar
2006	Hollenberg	Daniel	Integrative Health Care: A Critical Analysis of the Integration of Complementary / Alternative Medicine and Biomedicine in Clinical Settings	SBHS	Linda Muzzin
2006	Kosny	Agnieszka Arlette	The Hazards of Helping: Mission, Work and Risk in Nonprofit Social Service Organizations	SBHS	Joan Eakin
2006	Murphy	Louise	An Epidemiologic Study of the Role of Exogenous and Endogenous Estrogens in Rheumatoid Arthritis	EPI	John McLaughlin
2006	Nixon	Stephanie	Canada's International Response to HIV/AIDS: A Critical Public Health Ethics Inquiry	EPI	Ross Upshur

Year Graduated	Last Name	First Name	Thesis Title	Program	Primary Supervisor
2006	Polzer	Jessica	From Active Participant in Health to (Pro)Active Manager of Genetic Risk: (Re)Making the Ethical Subject of Risk in the Age of Genetics	SBHS	Ann Robertson
2006	Pullenayegum	Eleanor Maria	Semi-Parametric Models for Cost-Effectiveness Analysis: Improving the Efficiency of Estimation from Censored Data	BIOSTATS	Andy Willan
2006	Richardson	Julie	Predictors of Functional Transitions and Disability-Free Life Expectancy for Persons with Stroke and Coronary Heart Disease	BIOSTATS	Paul Corey
2006	Svoboda	Tomislav	Measuring the 'Reduction' in a Harm Reduction Program for Homeless Men Experiencing Harms Related to Alcohol Abuse and Problem Behaviours	EPI	Vivek Goel
2006	Xu	Wei	Recursive Partitioning Methods for Affected Relative Pair Linkage Analysis	BIOSTATS	Celia Greenwood
2007	Aguinaldo	Jeffrey Paul	Gay Men's Health: A Social Constructionist Analysis of Academic Literature and Men's Talk About the Health of Gay Men	SBHS	Ted Myers
2007	Binns	Malcolm Angus	Some Aspects of Segmented Regression Analysis Relevant to Temporal Localisation in Transient Neuroelectric Signals	BIOSTATS	Salomon Minkin
2007	Fang Lee	Sophia Shu	Random forest for multi-locus quantitative trait linkage analysis	BIOSTATS	Lei Sun &
2007	Gardner	Sandra Lynn	Change Point Models for Discontinuation Rates of Pneumocystis Carinii Pneumonia Prophylaxis in an Ontario HIV Patient Population	Biostats	Jamie Stafford
2007	Hayeems	Robin Zoe	Informed Consent and Genetic Databases: An Exploration of the Authorization Model	EPI	Ross Upshur
2007	Kristman	Vicki Leigh	Apo genotype and concussion in varsity athletes: can genetics predict brain injury	EPI	Nancy Kreiger

Year Graduated	Last Name	First Name	Thesis Title	Program	Primary Supervisor
2007	Mente	Andrew	High Urinary Calcium Excretion and Familial Aggregation of Hypertension, Kidney Stone Disease, Obesity, Excessive Weight Gain and Type 2 Diabetes in Patients with Calcareous Stones	EPI	Alexander G Logan
2007	Peirson	Leslea Jane	Policy in Praxis: A Case Study of Implementing Making Services Work for People	SBHS	Lorraine Ferris
2007	Pole	Jason	Antenatal steroid therapy for fetal lung maturation and the subsequent risk of childhood asthma	EPI	Cameron Mustard
2007	Poole	Jennifer Mary	Behind the Rhetoric of Hope: A Critical Analysis of Recovery Discourses in Ontario	SBHS	Ann Robertson
2007	Shahbaba	Babak	Improving Classification Models When a Class Hierarchy is Available	BIOSTATS	Radford Neal
2007	Tzontcheva	Anjela	A computational method for analyzing interval-censored time-to-event data in the presence of informative examination times	BIOSTATS	Jamie Stafford
2008	Bassil	Katherine	The Relationship Between Temperature and 911 Medical Dispatch Data for Heat-Related Illnesses in Toronto, 2002-2005: An application of syndromic surveillance	EPI	Donald Cole
2008	Chan	Sieu Gaen	Development of food frequency questionnaire and the database for assessing soy isoflavone intake in the chinese population	EPI	Nancy Kreiger
2008	Coleman	Brenda Lee	The Role of Drinking Water as a Source of Transmission of Antimicrobial Resistant Escherichia Coli	EPI	Allison McGeer
2008	Fehringer	Gordon	Genetic variation at the insulin-like growth factor 1 gene and association with breast cancer, breast density and anthropometric measures	EPI	Norman Boyd
2008	Gardner	Paula Jean	The Public Life of Older People Neighbourhoods and Networks	SBHS	Denise Gastaldo

Year Graduated	Last Name	First Name	Thesis Title	Program	Primary Supervisor
2008	Haines	Rebecca	Smoke, in my eyes: A bourdieusian account of young women's tobacco use	SBHS	Blake Poland
2008	Parkhomenko	Elena	Sparse canonical correlation analysis	BIOSTATS	David Tritchler
2009	Do	Minh Tam	Ionizing Radiation Exposure and Risk of Gastrointestinal Cancer: A Study of the Ontario Uranium Miners	EPI	Loraine Marrett
2009	Fan	Chun-Po Steve	Local Likelihood for Interval-Censored and Aggregated Point Process Data	BIOSTATS	Jamie Stafford
2009	Fergenbaum	Jennifer	Vascular and Metabolic Risk Factors, Carotid Atherosclerosis and Vascular Cognitive Impairment in a First Nations Population	EPI	Kue Young
2009	Lombardo	Anthony	Sex and Cyberspace: The Internet in the Sexual Lives of Men who have Sex with Men	SBHS	Ted Myers
2009	Perruccio	Anthony	The Contribution of Physical, Mental and Social Dimensions of Health to Predicting Self-Rated Health over the Course of Recovery Following Total Joint Replacement Surgery	EPI	Elizabeth Badley
2009	Rosella	Laura	A population based approach to diabetes mellitus risk prediction: Methodological advances and practical applications	EPI	Douglas Manuel
2009	Rossiter	Katherine	Undoing Wit: A Critical Exploration of Performance and Medical Education in the Knowledge Economy	SBHS	Ann Robertson
2009	Schulte	Fiona Simone Maria	Enhancing Social Competence through a Group Intervention Program for Survivors of Childhood Brain Tumors	SBHS	Maru Barrera
2009	Scott	Helen	Family Matters: An Examination of the Association Between Family Structure and Youth Injury	EPI	Mary Chipman
2009	Supapol	Wendy Bhanich	The Impact of GB Virus C Co-infection on Mother to Child Transmission of Human Immunodeficiency Virus	EPI	Robert Remis
2009	Urquia	Marcelo	Birth Outcomes of Immigrants to Urban Ontario. A population-based study	EPI	John Frank
2009	Willison	Kevin	Massage Therapy Visits by the Aged: Testing a Modified Anderson Model	SBHS	Ted Myers

# MPH Program

## Appendix 7: Objectives and competencies for each specialization

- Community Nutrition
- Epidemiology
- Family & Community Medicine
- Health Promotion
- Occupational & Environmental Health
- Global Health Concentration

## Appendix 8: Program requirements by specialization

## Appendix 7: Objectives and competencies for each specialization

### COMMUNITY NUTRITION

The MPH Program in Community Nutrition is offered in collaboration with the Department of Nutritional Sciences. The MPH specialization in Community Nutrition employs a population health perspective, health promotion approaches, principles of adult education and a social determinants of health framework to prepare graduates for careers in diverse areas of nutrition practice to promote the health of individuals, communities and populations.

#### Philosophy, Goals, Objectives and Competencies

The MPH Program in Community Nutrition is based on a philosophy that incorporates principles of adult education in which self-assessment, self-directed learning, reflection, critical thinking, and shared learning among students form the basis of the educational experience. The belief in transferable skills as well as the importance of continuous learning also underlies the Program. The goal of the MPH Program in Community Nutrition is to prepare students to be critically reflective practitioners with the capacities, knowledge & skills to work in a wide variety of community health roles throughout their careers. Program objectives include the following:

- Students will demonstrate the ability to critically analyze information and creatively problem solve.
- Students will demonstrate awareness of and sensitivity to ethical aspects of practice and will respond appropriately.
- Students will develop the competence required for entry level dietetic practice. While the professional and educational competencies are currently being revised ([www.pdep.ca](http://www.pdep.ca)), current competency areas as outlined by Dietitians of Canada include: Professional Practice; Assessment; Planning; Implementation; Evaluation; and, Communication.
- Students will understand the scope and conceptual basis underlying advanced community nutrition practice and will develop their capacities, knowledge and skills to work as partners in interdisciplinary community health teams in a variety of work settings.
- Students will develop additional expertise according to their unique interests and needs.
- Students will develop the capacity to assess and find ways to satisfy life-long learning needs.

The MPH Community Nutrition program enables students to meet the Core Competencies for Public Health Practice, version 1.0, developed by the Public Health Agency of Canada [See <http://www.phac-aspc.gc.ca/ccph-cesp/index-eng.php> ], as well as the entry level to Dietetics Practice Competencies required for membership to provincial colleges of dietetics [See <http://www.dietitians.ca/Downloadable-Content/Public/Public-Health-Nutrition-Comptencies--key-informant.aspx> ]

Students entering the program directly from undergraduate programs may acquire the competencies necessary for entry level dietetic practice. The program has been accredited by Dietitians of Canada. Practical experience is planned in order that students may demonstrate competencies in key areas of dietetic practice such as community nutrition, clinical nutrition, food systems administration, business and industry. Students complete placements through longer term community practica and short-term field placements in diverse organizations to gain exposure to the wide range of settings where dietitians work.

For students who have already acquired entry level dietetic practice experience and qualify to become members of a professional organization such as Dietitians of Canada and/or a provincial dietetics

regulatory body such as The College of Dietitians of Ontario, there are a variety of optional courses and practicum experiences to consider.

We work with a broad range of community partners who play a significant role in the educational experience of students. Students are exposed to a variety of community agencies from the public, private and not-for-profit sectors through practica, community field work in courses and partner involvement in course curricula.

## EPIDEMIOLOGY

### **Objectives, Learning Outcomes and Competencies**

The objective of the program is to provide students with a base of knowledge and skills in epidemiological methods and public health that will enable them to pursue careers in applied epidemiological research, or evidence-based public health practice. Graduates will:

- be able to work as part of a research group or a public health practice;
- be able to describe trends and patterns of disease incidence and prevalence, disease burden, factors affecting health status, and major etiologic and prognostic factors;
- understand the strengths and weaknesses of major methodological and analytical techniques;
- exhibit practical skills, including the ability to develop an epidemiological question, refine the question in light of the literature and community situation, design an appropriate study to answer the question, collect relevant data, analyze these data using commonly available statistical software, and interpret the findings relative to the literature and the community/organizational context;
- be able to prepare a paper for peer-reviewed publication, and present epidemiological information;
- have knowledge of public health principles and practice; and
- be able to read, understand, and critically appraise the scientific literature, and understand the effectiveness of core public health interventions.

### **Program Description**

The MPH in Epidemiology provides a solid base in epidemiological methods, an understanding of the breadth of community health and opportunities for applied experiential learning in epidemiologic practice, research and policy. The degree program is intended for students who want a research career (including pursuit of a PhD in epidemiology), and those who want to work in an applied public health setting. The curriculum emphasizes quantitative methods, critical appraisal of evidence, data analysis and interpretation. In contrast to strictly skills-based training, the degree is aimed at developing leaders who will make independent contributions when faced with public health challenges, and direct initiatives in the field. In addition, completion of the program meets the requirement for physicians training to be Medical Officers of Health in Ontario, and Royal College of Physicians and Surgeons of Canada requirements for Community Medicine residents. Our graduates have pursued careers in academic research institutes, applied research agencies, and public health settings.

***Progress through the MPH:*** There are two emphases possible within the MPH degree: a practice-based and a research-based focus. These two foci are determined by the student's interests and career goals, and run parallel to each other over the two-year course of the degree program, with opportunity for cross-over from one emphasis to the other.

Students with a strong research focus will generally obtain their practicum experiences in academic research settings; students with a strong practice focus will generally obtain their practicum experiences in a public health agency setting.

The phases of the MPH\* program are identified by a set of accomplishments which the student generally will attain in order, and within a satisfactory time. These phases, which will be monitored by the Division Head, are the completion of required and elective course work, completion of the practicum, and written (+/- oral) presentation of the practicum findings. Full-time students usually complete the degree in 20 months; i.e., they are expected to complete it within two (2) years (minimum completion time is 16 months). Part-time students may take longer, but not more than four (4) years; they must submit a revised list of milestones for approval by the Division Head by the end of the first year.

***Practica and the Capstone Project:*** The objective of the research-based practicum is to provide students with supervised research experience in academic and research institutions, to integrate course work and further develop research skills. They also offer a chance to explore the kinds of jobs that students may take on completion of the degree, and to inform students of options for further academic training (e.g., the PhD).

The objective of the public health practice-based practicum is to provide students with supervised field experience in community health agencies in Canada, to integrate course work and further develop practical skills. They also offer a chance to explore the kinds of jobs that students may take up upon completion of the degree. A minimum of one practicum placement will be completed by all students, with the option to take additional practicum offerings to reach or go beyond the total number of course credits required for the program. Students may take field placement and research practica in various combinations (e.g., two independent field or research practica, or one of each).

Students who wish a more intensive and longer-term research- or practice-based experience may register for multiple practicum placements with the same supervisor/agency and treat the sequence of practicum placements as a Master's Capstone Project. Students are expected to develop a practicum plan with the supervisor over the planned series of practica, equaling a minimum of 3.0 credits (through a combination of CHL6010Y/CHL6011H and CHL6020Y/CHL6021H/CHL6022Y practicum course entries). The plan will include appropriate and evaluable objectives associated with each of the individual practica in the sequence. By the end of the last practicum in the sequence, the student will have prepared a final report or paper, the Capstone Project report. The report may take a number of different forms, including a peer-reviewable research publication, a health status report, or a grant application. The report must be presented in a public forum and revised by the student, based on feedback received, as part of the final practicum.

## FAMILY AND COMMUNITY MEDICINE

There is a very important interface between public health and primary care clinical practice.<sup>1</sup> It has been established that the health of a population is directly related to the availability of primary care services.<sup>2</sup> Delivery of primary care services is an important determinant of health and is therefore a global public health priority. Family physicians and other primary care clinicians are at the frontline of public health in terms of identifying emerging public health problems, promoting healthy lifestyles, screening appropriate patients for disease, advocating for patients and discharging public health initiatives to their patients.<sup>3</sup> These individual-level services skillfully provided by primary care clinicians can be improved and enhanced by equipping those same clinicians with the population-level knowledge and skills offered by an MPH degree program.<sup>4</sup>

### **Objectives, Learning Outcomes, Competencies**

The MPH (FCM) consists of a set of core courses and practicum covering both the area of public health as well as enhanced primary care and faculty development skills. There are plenty of elective opportunities, enabling the learner to take additional public health and family medicine courses to satisfy their learning objectives.

We encourage MPH (FCM) learners to work with the Program Leader to structure their MPH program so that they satisfactorily cover the following core areas of public health: Epidemiology; Biostatistics; Occupational and Environmental Health; Social and Behavioral Health Sciences; and, Health Services Administration and Policy.

The solid grounding in public health that is provided with an MPH gives family physicians and other primary care health professional's knowledge and skills that can be employed in future professional work related to public health. The degree also assists learners in becoming more effective educators, scholars, and leaders in their respective clinical areas.

Some of the courses in the program combine a brief period (usually one week) of intensive "on campus" classroom activities, followed by an extended "off campus" study period and then concluded with another intensive "on campus" block. Other courses run in the more traditional longitudinal 13-week semester format. The practica may run concurrently with the formal course work. More information on the required MPH FCM practicum can be found below.

### **Required Practicum in Family Medicine: MPH (FCM)**

The MPH (FCM) required practicum provides an opportunity for learners to apply and reflect on the theory and knowledge gained in coursework by engaging in new academic projects in their professional settings.

Learners are required to spend a minimum of 320 hours involved in an appropriate practicum to earn the 1.0 FCE credit. Students must also identify a practicum field supervisor and all practicum projects require the approval of the Program Director.

Because the practicum involves the hands-on application of knowledge obtained via coursework, the practicum activities must be new endeavors that are related to either an area of academic core competency<sup>1</sup> or one of the Faculty of Medicine's faculty promotion planks<sup>2</sup> to which the learner has been exposed during previous or concurrent MPH coursework. See Table 1 or references below for specific examples.

<sup>1</sup> Harvey B. The issue of public health. *Canadian Family Physician* 2009;55:1057

<sup>2</sup> Starfield B. Is primary care essential. *Lancet* 1994;344:1129-1133

<sup>3</sup> Sikora C and Johnson D. The family physician and the public health perspective. *Canadian Family Physician* 2009;55:1061-3.

<sup>4</sup> Zweifler J and Evans R. Development of a residency/MPH program. *Family Medicine* 2001;33(6):453-8.

Throughout the practicum it is essential for learners to reflect on and record their experiences and to engage in regular discussions with their practicum field supervisor about their practicum progress. The practicum evaluation is based on the student's record of experiences; a 2-3 page scholarly, analytical and reflective report based on the overall experience; and a presentation to their classmates.

## HEALTH PROMOTION

Founded in 1979, the MPH Health Promotion program takes an explicitly social science perspective in addressing issues related to the health of individuals, communities and populations. In particular, our program gives special attention to identifying, understanding and addressing the societal and personal determinants of health. We give attention to an array of mutually reinforcing health promotion and public health strategies, including: health education and communications, community development, the role of organizational development and change, health advocacy, and the development of health promoting public policy.

### Objectives, Learning Outcomes, Competencies

The Health Promotion Program is guided by clearly articulated health promotion objectives (see below) and strives to ensure that its graduates have developed core health promotion competences (see below) that will enable them to contribute as practitioners and researchers in the fields of health promotion and public health. Our graduates have developed successful careers in a wide range of settings in academic, public and private sectors (both in Canada and overseas); they are working with a diverse set of populations

### Learning Outcomes

1. Re. Issues in Health Promotion Definition and Practice
  - To have a basic understanding of the concepts of health and illness.
  - To develop a critical understanding of a range of theoretical approaches to Health Promotion.
  - To develop a critical understanding of the methods and strategies of Health Promotion. their embeddedness in social thought and their implications for health and social change.
  - To appreciate that Health Promotion primarily involves changing the social and physical conditions that either produce illness or disease or enhance health.
2. Re. Understanding the Canadian Political System and Its Relation to Health
  - To understand the relationship of Health Promotion to the Canadian health care and social service delivery systems, and to the broader social, economic and political environments.
  - To be able to recognize the effect of ideology on problem definition and choice of solution to health issues in Canada and internationally.
  - To have a basic understanding of the determinants of health and illness in Canada.
3. Re. Skills in Implementing and Evaluating Health Promotion Programs
  - To gain skills in assessing health needs of individuals and communities.
  - To gain skills in designing effective health promotions including: community development, advocacy, social marketing and policy development.
  - To gain skills in implementing effective Health Promotion interventions.
  - To gain skills in research and evaluation of Health Promotion interventions.

- To be able to work effectively across disciplines, across sectors, and with members of the public.
- To develop an ability to be critical in the appraisal and use of statistics, health surveys and epidemiological data.
- To be capable of reflecting on and assessing one's own value system and how it has an impact on professional behaviour.

### **Core Competencies Expected of Health Promotion Practitioners**

Please note: (derived from a larger initiative to identify competences related public health practice (see <http://hpo.squarespace.com/hpo-resources/> )

1. Demonstrate knowledge necessary for conducting health promotion that includes:
  - Applying a determinants of health framework to the analysis of health issues.
  - Applying theory to health promotion planning and implementation
  - Applying health promotion principles in the context of the roles and responsibilities of public health organizations
  - Describing the range of interventions available to address public health issues
2. Conduct a community needs/situational assessment for a specific issue that includes:
  - Identifying behavioural, social, environmental and organizational factors that promote or compromise health
  - Identifying relevant and appropriate data and information sources
  - Identifying community assets and resources
  - Partner with communities to validate collected quantitative and qualitative data
  - Integrating information from available sources to identify priorities for action
3. Plan appropriate health promotion programs that includes:
  - Identifying, retrieving and critically appraising the relevant literature
  - Conducting an environmental scan of best practices
  - Developing a component plan to implement programs including goals, objectives and implementation steps
  - Developing a program budget
  - Monitoring and evaluating implementation of interventions
4. Contribute to policy development that includes:
  - Describing the health, economic, administrative, legal, social and political implications of policy options
  - Providing strategic policy advice on health promotion issues
  - Writing clear and concise policy statements for complex issues
5. Facilitate community mobilization and build community capacity around shared health priorities that includes:
  - Engaging in a dialogue with communities based on trust and mutual respect
  - Identifying and strengthening local community capacities to take action on health issues
  - Advocating for and with individuals and communities that will improve their health and well-being
6. Engage in partnership and collaboration that includes:
  - Establishing and maintaining linkages with community leaders and other key health promotion stakeholders (e.g., schools, businesses, churches, community associations, labour unions, etc.)

- Utilizing leadership, team building, negotiation and conflict resolution skills to build community partnerships
  - Building coalitions and stimulating intersectoral collaboration on health issues
7. Communicate effectively with community members and other professionals that includes:
    - Providing health status, demographic, statistical, programmatic, and scientific information tailored to professional and lay audiences
    - Applying social marketing and other communication principles to the development, implementation and evaluation of health communication campaigns
    - Using the media, advanced technologies, and community networks to receive and communicate information
    - Interacting with, and adapting policies and programming that respond to the diversity in population characteristics
  8. Organize, implement and manage health promotion interventions that includes:
    - Training and coordinating program volunteers
    - Describing scope of work in the context of organization's mission and functions
    - Contributing to team and organizational learning
  9. Conduct program evaluation and research, including:
    - To use a participatory approach to evaluation and research
    - To use appropriate qualitative and quantitative methods
    - To build new knowledge based in health promotion practice
    - To evaluate HP programs in the field
  10. Demonstrate strong academic skills, including:
    - To communicate effectively (orally and in writing)
    - To possess a variety of research and evaluation skills/methods in the collection and analysis of data
    - To be informed consumers of research, by taking a critical appraisal approach to research evidence, argumentation, etc.
    - To demonstrate creativity and innovation in health promotion practice

#### **Field Inquiry/Research (undertaken in conjunction with 2<sup>nd</sup> Practicum)**

- **Independent field research:** The 2<sup>nd</sup> practicum often involves an optional small independent field research project, for which students receive an additional 0.5 FCE (i.e., one half-course credit) by registering for CHL5806H ("Health Promotion Field Inquiry") in conjunction with their practicum.
- **Nature of field inquiry:** The field inquiry/research can take many forms and be connected to the 2<sup>nd</sup> practicum in several ways:
  - a. Students can undertake a small research project in the 2<sup>nd</sup> practicum setting/location, over and above the work required by the sponsoring agency/organization. The project will be of interest and benefit to the agency and can be accomplished during normal working hours
  - b. Students can undertake a larger research project that responds to the needs/operation of the sponsoring agency/organization.  
In this case, the products emanating from both the practicum and field inquiry are related to the same project. It is important to note that separate products are required for the practicum and the field inquiry. The student will need to negotiate this with her/his academic advisor and the field supervisor before starting the practicum
  - c. The student can be part of a larger research project: for the practicum component, s/he might be a research assistant; while for her/his field inquiry, the student takes the lead with respect to a subset or component of the larger project (e.g., conducting a special analysis or doing extra interviews)

- d. In special circumstances, the student can complete an extended reflection exercise related to her/his practicum experience.
- **Requirements and grading:**
    - a. **Ethics:** An ethics protocol following the University of Toronto format is required for those doing research. Depending on the nature of the research and the population involved in the research, the ethics protocol will be reviewed and approved in one of two ways: (1) either by the course directors, or (2) by the Health Sciences Ethics Review Board of the University of Toronto.
    - b. **Assignment 1:** Progress report and reflective paper: 10-15 pages; 30% of the final mark. This report must include an indication of the progress made on research to date and a personal reflection of your role as a health promoter and researcher in a practice setting. The report should contain the following elements:
    - c. **Assignment 2:** Academic-style final report, written up as an academic paper (American Psychological Association Style): 25-30 pages of text; conceptual model and references, letters of information, consent letters or necessary background information are additional; 70% of the final mark.

## OCCUPATIONAL AND ENVIRONMENTAL HEALTH

The MPH degree with a specialization in Occupational and Environmental Health (OEH) is offered with two options: a professional training option in occupational hygiene, and a research training option in occupational or environmental health.

### Objectives, Learning Outcomes, Competencies

**The Professional Option:** Established in 1979, the objective of this degree is to train candidates for a career as an Occupational Hygiene professional. This includes the development of expertise to anticipate, identify and assess the potential risks to health posed by hazardous materials, agents and situations in the occupational environment, to evaluate exposures to these hazards and the extent of risk, and to develop and manage effective control strategies for them. Health hazards typically found in the workplace include chemicals; physical agents, such as noise, heat, vibration and radiation; and biological agents, such as bacteria, fungi and viruses. In addition ergonomic and safety hazards commonly encountered in workplaces, are also of interest in occupational hygiene as are workplace environmental controls.

**The Research Option:** The objective of the MPH Occupational and Environmental Health research option is to provide training to students who wish to pursue a research career in occupational and/or environmental health. The program still requires 10.0 FCE, however, there is considerably more flexibility in the course selection and in the length and nature of the practicum activities than in the professional option.

### *Professional Option - Learning Outcomes and Competencies*

Graduates will:

- Demonstrate a knowledge of those principles in the physical and biological sciences necessary for developing competence in the theoretical and practical aspects of occupational hygiene (sufficient to pass professional exams offered by Canadian Registration Board of Occupational Hygiene and/or American Board of Industrial Hygiene)

- Describe the effects of exposure to workplace hazards (chemical, physical and biological)
- Understand and apply methods used in hazard analysis and risk assessment
- Explain the influence of workplace hazards on the general environment and the role of the hygienist in environmental protection
- Demonstrate a knowledge of ergonomics, occupational safety, accident prevention, and, occupational health and safety considerations of labour relations
- Demonstrate the critical skills required in the review of scientific literature, and a knowledge of research methods, including epidemiological and statistical techniques as they apply to occupational health
- Communicate effectively with labour, management, the public and other members of the scientific community

### **Learning Outcomes**

#### **1. Identification**

- Be able to recognize and understand the chemical/physical and biological agents that may enter the human body by various routes.
- Understand the physical and chemical properties that influence how and how much of an agent enters the human body
- Be able to recognize or research toxicological information on agents and understand the implications for both short and long term health
- Have familiarity with basic industrial/work processes that generate contaminants of concern to health
- Have familiarity with various types of health study designs and their limitations and interpretations for use in other settings.

#### **2. Evaluation**

- Know primary means by which chemical, physical and biological agents are measured to compare to legal standards or scientific guidelines
- Understand what standards and guidelines are available, and their source and limitations for risk from exposures for various populations and individuals.
- Understand how to develop and institute monitoring to measure exposure in a population.
- Understand limitations, accuracy and precision in collecting measurements of agents by available options.
- Understand variability in exposure, and how to manage exposure data to draw useful conclusions about risk to human health.
- Be able to communicate results about health risks to various stakeholders to meet their objectives and understand the risks

#### **3. Control**

- Know various strategies to control risk to health from chemical, physical and biological agents.
- Understand and evaluate the degree of control achieved by engineering, administrative interventions or personal protective equipment in exposure control
- Understand how programs to control and evaluate risks are developed, implemented and evaluated for effectiveness.

### **Competencies**

- Identify major environmental and occupational contaminants (chemical, biological, and physical) and describe their associated potential health effects on humans.

- Describe genetic, physiologic, and psychosocial factors that affect health risks associated with exposure to contaminants
- Specify the pathways of exposure to chemical, physical and biological agents in the workplace and in non-occupational settings.
- Design and undertake an occupational risk assessment, including the types of evidence that are used and the sources of uncertainty and variability in analysis. In particular, exposure assessment methodologies for chemical, physical and biological agents are emphasized.
- Specify approaches for recognizing, assessing, controlling and preventing chemical, biological, and physical exposures in occupational settings.
- Describe current regulatory programs, legislative authorities, and consensus guidelines that deal with occupational health issues.
- Work effectively in interdisciplinary teams in the evaluation of occupational or environmental health problems and the development of solutions to address and mitigate these problems. This includes communication and knowledge transfer to a variety of stakeholders.

## GLOBAL HEALTH CONCENTRATION

This initiative brings together students from across all MPH fields to focus on global public health issues from an interdisciplinary perspective through shared courses and seminars.

### Core Competencies

A public health practitioner, policy maker or researcher in global health will:

- Understand the political economy of global health issues.
- Bring a determinants-of-health and population health perspective to problem analysis, policy development and project design.
- Be cognizant of the linkages between local and global health problems.
- Work within the mandates, roles and approaches of international organizations.
- Build coalitions and work in partnership with the NGO sector and local community organizations.
- Be sensitive to cultural differences and adapt methods to local contexts.
- Apply appropriate ethical approaches to international, country level and local projects.
- Understand broad ethical issues as they relate to equity globally.

All students in the Global Health concentration are required to take: CHL 5700 Global Public Health and one international health-related elective (0.5 FCE). These courses will be considered as electives within the MPH specialization in which the student is enrolled.

In addition, each student is required to do one of their practicum placements related to global health.

## Appendix 8: Program requirements by specialization

### COMMUNITY NUTRITION

Term 1		
CHL 5004	Intro Public Health Sciences	0.5
NFS 1208	Field Observation 1: Intro to Community Nutrition Practice	0.5
NFS 1484	Advanced Nutrition	0.5
CHL 5221	CHAM 2: Intro to Qualitative Methods	0.5
CHL 5300	Public Health Policy	0.5
Term 2		
NFS 1211	Community Nutrition	0.5
CHL 5220	CHAM 1: Intro to Quantitative Methods	0.5
NFS 1209	Field Observation 2: Clinical Nutrition	0.5
Term 3		
Practica:		
CHL 6011	one six week clinical practicum	0.5
CHL 6010/11	one 12-16 week community/public health/ industry practicum	1.5
Term 4		
NFS 1201	Public Health Nutrition	0.5
NFS 1221	Nutrition Programs and Strategies	0.5
NFS 1210	Field Observation 3: Management of Community Food Systems	0.5
Term 5		
Practicum		
CHL 6020/21	One 12-16 week community/public health/industry practicum	1.5

### EPIDEMIOLOGY

Term 1 (2.5-3.0 FCE)		
CHL5004H	Introduction to Public Health	0.5
CHL5201H	Introduction to Biostatistics I	0.5
CHL5300H	Public Health Policy	0.5
CHL5401H	Introduction to Epidemiology I	0.5
CHL5426H	Population Perspectives for Epidemiology	0.5
Term 2 (2.0-2.5 FCE)		
CHL5202H	Biostatistics II	0.5
CHL5402H	Epidemiologic Methods II	0.5
CHL5405H	Health Trends and Surveillance	0.5
CHL5418H	Scientific Overviews in Epidemiology	0.5
Summer (1.5-2.0 FCE)		
CHL6010Y	Required MPH* Practicum/Research	1.0
CHL6011H	Required Practicum/Research Extension	0.5-1.0

### FAMILY AND COMMUNITY MEDICINE: (5.5 FCE)

CHL5004H	Introduction to Public Health	0.5
HAD5010H	Canada's Health System & Health Policy	0.5

CHL5602H	Working with Families in Family Medicine	0.5
CHL5603Y	Social, Political and Scientific Issues in Family Medicine	1.0
CHL5604H	Human Development Issues in Family Medicine	0.5
CHL5607H	Teaching & Learning by the Health Professions: Principles & Theories	0.5
CHL5608H	Teaching & Learning by the Health Professions: Practical Issues & Approaches	0.5
CHL5620Y	Required MPH Practicum in Family Medicine (see below)	1.0
	A research oriented course (such as CHL5605: Research Issues in Family Medicine)	0.5

## HEALTH PROMOTION

### Year 1 Fall Term

CHL5004H	Introduction to Public Health	0.5
CHL5801H	Health Promotion	0.5
CHL5221H	Community Health Appraisal Methods II: Introduction to Qualitative Research Methods	0.5
CHL5110H	Theory and Practice of Program Evaluation	0.5

### Year 1 Winter Term

CHL5803H	Health Promotion Strategies	0.5
CHL5220H	Community Health Appraisal Methods I: Introduction to Epidemiology	0.5

### Year 1 Summer Term

CHL 6010/6011	12 - wk Practicum	1.5
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### Year 2 Fall Term

CHL5805H	Critical Issues in Health Promotion	0.5
CHL5300H	Public Health Policy	0.5

### Year 2 Winter Term

CHL 6020/22	16 - wk Practicum	2.0
CHL 5806	Health Promotion Research	0.5

## OCCUPATIONAL AND ENVIRONMENTAL HEALTH

### Term I (September - December):

CHL 5912F	Industrial Toxicology	0.5
CHL 5910F	Occupational & Environmental Hygiene I	0.5
CHL 5914	Physical Agents I - Noise	0.5
CHL 5004F	Introduction to Public Health Sciences	0.5
CHL 5950	Biological Hazard in the Workplace and Community	0.5

### Term 2 (January - April):

CHL 5911S	Occupational & Environmental Hygiene II	0.5
CHL 5915S	Control of Occupational Hazards	0.5
CHL 5903S	Environmental Health (recommended elective)	0.5
CHL 5220F	Community Health Appraisal Methods (CHAM)	0.5

### May - August (between terms II and III):

CHL 6010	Practicum (16 weeks minimum full time, ie 40 hours/week)	2.0
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## Term 3 (September - December):

CHL 5902F	Advanced Occupational Hygiene	0.5
CHL 5907F	Physical Agents II - Radiological Health	0.5
CHL 5410F	Occupational Epidemiology	0.5
CHL 5904F	Perspectives in OHS - Legal and Social Context	0.5
CHL 5917	Concepts in Safety Management	0.5

# MScCH Program

## Appendix 9: Program Details for each specialization

## Appendix 9: Program Details for Each Specialization

### Addictions and Mental Health (AMH)

#### Objectives, learning outcomes, competencies

There is a growing need for more advanced and focused training for health professionals practicing, or seeking to practice, in the Addictions and Mental Health field, as recognized in the May, 2006 Canadian Senate Report, “Out of the Shadows at Last: Transforming Mental Health, Mental Illness and Addiction Services in Canada” (report available at <http://www.parl.gc.ca/39/1/parlbus/commbus/senate/Com-e/SOCI-E/rep-e/rep02may06-e.htm>). Addictions and mental health problems account for five of the leading 10 contributors to the burden of illness in Canada. Professionals from a variety of backgrounds work in the AMH field.

The MScCH Addiction and Mental Health (AMH) field is designed to provide graduate-level education to health professionals who are seeking professional education and development in this field. Graduates will be familiar with biological, psychological and social determinants of addiction and mental health problems, and with current public health approaches to mental health and addiction issues, ranging from policy to individual interventions.

#### Admission requirements, policies and procedures, with a description of the ‘target audience’

The MScCH (AMH) program is intended for highly academically and professionally qualified individuals in established health professions, currently working in or wishing to work in the AMH field. Some individuals currently working in the Addictions and Mental Health field who are not licensed health professionals may be admitted to the MScCH with an undergraduate degree (with a minimum “mid B” average in the last academic year ) plus a suitable amount of relevant professional experience in the Addictions and Mental Health context.

#### Program description and requirements

##### Required courses (2.0 FCE)

CHL 5004H	Introduction to Public Health Sciences
CHL 5804H	Health Behaviour Change
CHL 5300H	Public Health Policy
CHL 5690H	Required Practicum

##### Plus at least one (0.5 FCE) of

PAS 3700H	Multidisciplinary Aspects of Addiction
CHL 5120H	Population Health Perspectives on Mental Health and Addiction

##### Plus at least two (1.0 FCE) of

PAS 3701H	Advanced Research Issues in Addictions
CHL 5119H	Social and Political Perspectives on Drugs and Addictions
CHL 5417H	Tobacco and Health: From Cells to Society

SWK 4616H Drug Dependence: Treatment Approaches

CHL 5610H Theory and Practice of Behaviour Change in Primary Care

### **Elective courses (1.5 FCE)**

CHL 5691H Optional practicum

Other courses relevant to the student's area of interest, with approval of the Field Director.

## **Family and Community Medicine (FCM)**

Around the world, Family Medicine is becoming increasingly recognized as an academic discipline with its own unique collection of knowledge, skills and attitudes. The University of Toronto's MScCH (FCM) is a unique and rigorous professional graduate studies degree intended to strengthen the practice of family medicine and primary care by developing leadership, teaching and research skills of family physicians and primary care providers (such as nurse practitioners).

### **Objectives, learning outcomes, competencies**

In order to prepare prospective faculty, entry level faculty as well as experienced academic health professionals to become more effective and scholarly leaders of academic family medicine and primary care, the MScCH aims to fulfill the following objectives:

- An understanding of social, political and scientific forces that influence the health care system and the delivery of primary health care.
- An understanding of how individual and family dynamics affect the health of a population.
- A basic understanding of public health principles and health policy.
- An understanding of how to effectively apply the principles of adult education when teaching in a classroom or a clinical setting.
- An understanding of how to design effective and innovative inter-professional educational programs in a scholarly manner.
- An understanding of research methods, basic statistical techniques and how best to apply them to the primary care clinical setting.
- An understanding of the principles of leadership and management as they relate to the health care setting.

A notable strength of the program is that the practicum requirements allow for experiential learning and reinforce the theoretical principles learned in many of the courses.

Participants in the program hail from many different parts of the world, contributing to a unique and stimulating venue for learning and collaboration. The longitudinal nature of the program allows participants to develop rich professional networks with their colleagues.

The MScCH curriculum is designed for practicing health professionals who are or can reasonably expect to become teachers and leaders in their professional fields. Graduates of our programs have often gone on to hold high-level hospital and/or university appointments at their home institutions which reflects the utility of the knowledge, skills and attitudes developed in the Family Medicine Master's programs.

**Program description, requirements, program of study and practicum**

The field's curriculum includes the following:

<b>Required Courses (3.5 FCE)</b>		<b>FCE</b>
CHL5004H	Introduction to Public Health	(0.5)
HAD5010H	Canada's Health System & Health Policy	(0.5)
CHL5603Y	Social, Political and Scientific Issues in Family Medicine	(1.0)
Either	CHL5602H Working with Families in Family Medicine	(0.5)
	CHL5604H Human Development Issues in Family Medicine	
Either	CHL5607H Teaching & Learning by the Health Professions: Principles & Theories	(0.5)
	CHL5608H Teaching & Learning by the Health Professions: Principal Issues and Approaches	
CHL5690Y	Required Practicum (see below)	(0.5)
	Research-oriented course	(0.5)
 <b>Example Elective Courses: (1.5 FCE)</b>		
CHL5601H	Teaching Evidence-Based Family & Community Medicine in the Clinical Setting (N.B., web-based, on-line course)	(0.5)
CHL5605H	Research Issues in Family Medicine/Primary Care	(0.5)
CHL5606H	Research Issues in Family Medicine/Primary Care; Methodological Applications	(0.5)
CHL5609H	Continuing Medical Education in Health Professions	(0.5)
CHL5610H	Theory and Practice of Behaviour Change in Primary Care	(0.5)
CHL5611H	Continuing Education Planning, Management and Evaluation in the Health Professions (N.B., condensed format course)	(0.5)
CHL5612H	Theory and Application of Interprofessional Education for Collaborative Patient Centred Practice	(0.5)
CHL5623H	Practical Management Concepts and Cases in Leading Small Health Organizations	(0.5)
CHL5691Y	Field Specific Optional Practicum	(0.5)
CHL7001H/ CHL7002H	Directed Reading/Research course	(0.5)

This MScCH was created from the previous MHSc in FCM in order to provide a degree that enabled primary care and other clinicians to enhance their clinical, teaching and/or research knowledge and skills. By doing this, the degree requirements have been reduced by 50%, and where possible existing course formats have been (or are being) modified to make the program more accessible to busy health practitioners, especially physicians.

## Health Practitioner Teacher Education (HPTE)

Health Practitioner Teacher Education (HPTE) is an area of growing interest as, the expectation for skills training in pedagogy and certification of teaching training become the norm for university instructors around the world. The MScCH (HPTE) addresses the practical high quality education needs of family physicians and other health professionals locally, nationally and internationally.

### Program description, requirements, typical program of study and practicum

The curriculum design and program content is chosen for those health professionals who can reasonably expect to be, or already are, teachers and/or education leaders in their fields. The field's curriculum includes the following:

	<b>Required Courses (3.5 FCE)</b>	<b>FCE</b>
CHL5004H	Introduction to Public Health	(0.5)
HAD5010H	Canada's Health System & Health Policy	(0.5)
CHL5607H	Teaching & Learning by the Health Professions: Principles & Theories	(0.5)
CHL5608H	Teaching & Learning by the Health Professions: Practical Issues & Approaches	(0.5)
CHL5609H	Continuing Medical Education in Health Professions	(0.5)
CHL5611H	Continuing Education Planning, Management and Evaluation in the Health Professions	(0.5)
CHL5690Y	Required MScCH Practicum in HPTE (see below)	(1.0)
	<b>Example Elective Courses: (1.5 FCE required)</b>	
CHL5601H	Teaching Evidence-Based Family & Community Medicine in the Clinical Setting	(0.5)
CHL5602H	Working with Families in Family Medicine	(0.5)
CHL5603Y	Social, Political and Scientific Issues in Family Medicine	(1.0)
CHL5604H	Human Development Issues in Family Medicine	(0.5)
CHL5605H	Research Issues in Family Medicine/Primary Care	(0.5)
CHL5606H	Research Issues in Family Medicine/Primary Care; Methodological Applications	(0.5)
CHL5610H	Theory and Practice of Behaviour Change in Primary Care	(0.5)
CHL5612H	Theory and Application of Interprofessional Education for Collaborative Patient Centred Practice	(0.5)
CHL5623H	Practical Management Concepts and Cases in Leading Small Health Organizations	(0.5)
	Other elective courses in Public Health	
	Other elective courses in DFCM	
CHL5691Y	Field Specific Optional Practicum	(0.5)

This MScCH was created from the previous MHSc in FCM in order to provide a degree that was focused on the foundational knowledge and skills of faculty teaching in various Health Practitioner areas. By

doing this, the course requirements have been reduced by 50%, and where possible existing course formats have been (or are being) modified to make the program more accessible to busy health practitioners, especially physicians.

### Occupational Health Care (OHC)

The Occupational Health Care (OHC) field addresses the need for occupational health care professionals (eg, physicians, nurses, physiotherapists, occupational therapists) to acquire formal professional academic training and development through graduate studies to enhance their expertise and leadership within the area of occupational health care. The program enables these health care professionals to develop their analytical, critical, scholarly, professional and knowledge translation skills in order to promote changes in practice. Occupational health care addresses the health care needs of both individuals and groups in relation to their working environments. This includes the recognition, evaluation, control, management and rehabilitation of occupationally-related diseases and injuries.

This is a recently-introduced program (2009) that has not yet admitted its first student. It is a unique program in Canada and it is anticipated that, in the future, it will attract students from across Canada and internationally.

#### Objectives

- To understand Canada's health care system and health policy.
- To understand the workers' compensation system in Canada.
- To understand the nature of occupational health practice within Canada's health care system and compensation system including the legal and social context of practice.
- To obtain knowledge in the scientific disciplines relevant to occupational health care practice such as toxicology, industrial hygiene and epidemiology.
- To obtain knowledge and apply this knowledge in clinical areas relevant to the practice of occupational health care, such as contact dermatitis, occupational respiratory disease, occupational allergy, occupational musculoskeletal problems, hand-arm vibration syndrome, noise-induced hearing loss, cancer, toxic exposures.
- To understand and be able to evaluate the delivery of occupational health care services in various settings such as the Ministry of Labour, Workplace Safety and Insurance Board, industry, and occupational health clinics in hospital or community settings.
- To learn how to apply epidemiological principles in the evaluation of occupational health care.
- To learn how to effectively communicate occupational health care issues with various stakeholders.

#### Program Description

##### **Required Courses (3.5 FCE)**

CHL 5004H	Introduction to Public Health Sciences
HAD 5010H	Canada's Health System & Health Policy
CHL 5912H	Industrial Toxicology
CHL 5910H	Occupational and Environmental Hygiene 1
CHL 5905H	Advanced Clinical Studies in Occupational Medicine
CHL 5904H	Perspectives in Occupational Health and Safety - Legal and Social Context
CHL 5690H	Required Practicum

##### **Elective Courses (1.5 FCE)**

CHL 5691H	Field-specific Optional Practicum	(0.5)
Optional Courses	Courses in Epidemiology and Biostatistics are recommended	(1.0 to 1.5)

## Wound Prevention and Care (WPC)

Wounds are common in chronic illnesses such as diabetes and are major factors affecting the increasing need for home care and inappropriate long term use of acute care beds around the world. New knowledge is rapidly transforming the management of this costly and growing health problem. Clinicians from a variety of professional disciplines need the knowledge and skills to understand and convey new approaches concerning wound prevention and management effectively to their colleagues and students.

### **Required Courses (3.5 FCE)**

CHL5004H	Introduction to Public Health	(0.5)
HAD5010H	Canada's Health Care System and Health Policy	(0.5)
CHL5630Y	Wound Prevention & Care	(1.0)
CHL5607H	Teaching & Learning in the Health Professions - Principles and Theories	(0.5)
CHL5608H	Teaching & Learning in the Health Professions - Strategies & Practical Applications	(0.5)
CHL5690H	Required Practicum	(0.5)

### **Elective Courses (1.5 FCE)**

Optional Courses		(1.0 - 1.5)
CHL5691H	Optional Practicum	(0.5)

## Special features/innovations in the MScCH

- **Practica:** The practica provide the students with opportunities to apply, critically evaluate and reflect upon their new skills directly in a health professional setting. The basic **requirements** are the same for both the required and optional practica and for each of the six fields. Students are required to spend a **minimum** of 160 hours involved in appropriate supervised field practice for 0.5 FCE. Throughout the practicum the students are expected to record and reflect upon their experiences and to engage in regular discussion with their practicum supervisor. The practicum evaluation is based on the student's performance plus a scholarly, analytical and reflective report drawing on the experience, and a presentation to their classmates. All practicum placements require the approval of the MScCH Program Committee. Students may choose an optional (additional) practicum that involves more advanced and demonstrably different work in the same field as the required practicum or if appropriate may be in one of the other fields in the MScCH.
- **Recognition of Continuing Education:** Many health professionals are required to engage in regular, formal Continuing Education. **Some** Continuing Education courses **may** be accepted as partial credit for specified graduate courses with the approval of DLSPH Curriculum/ Examination Committee. To ensure the maintenance of high academic standards, the following conditions apply:
  - Eligible Continuing Education [hotlink] courses taken at the University of Toronto, Faculty of Medicine within the previous 12 months with a final grade of at least A-.
  - In all cases the student will be required to complete specified additional work, above the CE requirements, in order to receive the graduate credit.
  - Credit will be granted for a maximum of two academic (0.5 FCE each) courses for any one student.

Courses eligible for possible graduate credit	Comparable MScCH Graduate Courses
Teaching and Learning in the Health Professions A & B	CHL5607H & CHL5608H
Continuing Education in the Health Professionals	CHL5609H
Human Development	CHL5604H
Working with Families	CHL5602H
Seminar series - Socio/Political Economic issues	CHL5603Y
Teaching evidence - based Medicine	CHL5601H
Behavioural Change Counselling in Primary Care	CHL5610H
Research Issues in Family Medicine/Primary Care	CHL5605H & CHL5606H
Continuing Education Planning, Management & Evaluation in the Health Professions	CHL5611H
International Wound Care Training Program	CHL5630Y

- Over the past several years, an interdisciplinary, part-time, 10-month, high level continuing education program at the University of Toronto in WPC for Health Professionals has attracted over 80 participants annually from Canada and abroad. A sizeable subset of participants in these Continuing Education certificate programs have strongly requested a further training program at the Master's level with more pedagogical and community health content. Clinicians from a variety of professional disciplines need these skills to convey new approaches effectively to their colleagues and students.
- With the approval of the Program Committee, a student who is *unable to complete* all the requirements for the MScCH may chose the Diploma option which requires 3.5 FCE including:
  - 0.5 FCE core Public Health Sciences;
  - 0.5 FCE Practicum; and,
  - 2.5 FCE field-specific required courses.

*Note: The Diploma option is only available to students enrolled in the MScCH program (i.e., it is not available as a "direct-entry" program)*

# Other Education Programs

## Appendix 10: Occupational Medicine Residency Program

## Appendix 10: Occupational Medicine Residency Program

### Description of objectives for CanMeds

#### (a) Medical Expert

- Demonstrate diagnostic and therapeutic skills for ethical and effective patient care.
- Access and apply relevant information to clinical practice including knowledge of preventive practices in an occupational context.
- Demonstrate effective consultation services with respect to patient care, education and legal opinions.
- Demonstrate skills in the identification and evaluation of health hazards in the workplace and in the development, delivery and evaluation of relevant programs for workers.

#### (b) Communicator

- Establish therapeutic relationships with patients and groups of workers.
- Obtain and synthesize relevant history from patients/communities/workplaces.
- Listen and communicate effectively.
- Discuss appropriate information in an effective manner with patients, the health care team, workplace parties, and government agencies.

#### (c) Collaborator

- Consult effectively with other physicians and health care professionals.
- Contribute effectively to other interdisciplinary team activities.
- Work effectively with the workplace parties and government agencies.

#### (d) Manager

- Utilize resources effectively to balance patient care, learning needs, and outside activities.
- Allocate finite health resources wisely.
- Work effectively and efficiently in an occupational health care organization.
- Utilize information technology to optimize patient care, life-long learning and other activities.
- Establish, implement and lead an occupational health and safety team.

#### (e) Health Advocate

- Identify the important determinants of health affecting workers/patients.
- Contribute effectively to improved health of workers/patients and communities.
- Recognize and respond to those issues where advocacy is appropriate.

#### (f) Scholar

- Develop, implement and monitor a personal continuing education strategy.
- Critically appraise sources of medical information.
- Facilitate learning of patients, residents/students and other health professionals.
- Contribute to development of new knowledge.

#### (g) Professional

- Deliver highest quality care with integrity, honesty and compassion.
- Exhibit appropriate personal and interpersonal professional behaviours.
- Practise medicine ethically consistent with obligations of a physician.
- Meet obligations and confidentiality requirements in the workplace setting.

The Learning Outcomes and Competencies are related to the demonstration of achieving competence in each of the CanMEDS roles outlined above as described in detail in the Royal College OOT document.

### **The Program Learning Plan and Assessment Process**

This is a two year program consisting mainly of didactic course work at the DLSPH, clinical rotations, and industry and government placements. The assessment of clinical rotations and placements is done using the POWER electronic system in the Faculty of Medicine. Objectives of training in CanMEDS format have been developed for each rotation and the evaluation in each rotation involves an assessment of whether the rotation-specific objectives have been met. The residents in each rotations are evaluated by the site supervisors. The evaluation of the didactic courses varies with the evaluation methods of each course but in general consists of a combination of examinations, papers and presentations. The program director does an additional in-training evaluation report (ITER) on each resident every six months and there is an overall final in-training evaluation report (FITER) done near the completion of training by the Program Director in conjunction with the residency program committee.

# Innovations & Initiatives in Education

## Appendix 11: Collaborative Programs bDoctoral Program in Global Health (CPGH)

## Appendix 11: Brief Description of Selected Collaborative Programs

- The **Collaborative Program in Aboriginal Health (CPAH)** accepted its first students in the fall term of 2006. CPAH aims to promote and consolidate Aboriginal health at U of T. It provides a focus for students interested in Aboriginal health to interact and learn from each other in a manner that may not be available in their home departments or faculties. It exposes them to a broad scope of faculty expertise in terms of substantive content areas, geographical locations of research site, methodological approaches, and philosophical orientations. The interactions among students, and between students and faculty, occur through the core courses, the research seminar series, and national/regional workshops. CPAH also facilitates the placement of students in Aboriginal communities and service agencies for practicum training and field research, to prepare them for future employment and other types of interactions, while benefiting directly such organizations.
- The **Collaborative Program in Addiction Studies (CoPAS)** has a fundamental aim of stimulating interest in addictions issues by graduate students at the University of Toronto. CoPAS takes advantage of the multidisciplinary nature of addictions to involve fifteen participating departments and units as well as collaborating institutions in the provision of advanced study, research and training in addictions. Students participating in CoPAS must take a required core course and two other course equivalents, one of which can be a thesis in the area of addictions or a practicum.
- The **Collaborative Program in Aging, Palliative and Supportive Care across the Life Course** is interdisciplinary in nature with 16 participating academic units. The Collaborative Program prepares graduate students for specialization in the field of aging, and/or the field of palliative and supportive care engaging them in these issues from a life course perspective. There are two options of study, making it unique: aging and the life course, and palliative and supportive care. The Program hosts two core courses in each stream, and offers some of its elective courses online (AGE2500H Current Research Topics in Aging and the Life Course: Health and Aging) and is looking to expand its online offerings with other current topics. Two new elective palliative courses have been implemented in the past two years that offer interprofessional and interdisciplinary training online for students at different partner universities.
- The **Collaborative Program in Bioethics (CPB)**, introduced in 1994, is a research-stream graduate program, has admitted more than 75 students. The nine participating graduate units are: Rehabilitation Science; Health Policy, Management and Evaluation; Medical Science; Law; Nursing; Philosophy; Public Health Sciences; Religion; and Social Work. The CPB prepares students who will specialize in bioethics with an emphasis on innovative interdisciplinary research and scholarship in bioethics, and trains scholars whose primary goal is to contribute original research in bioethics. Other objectives include: to develop and enrich educational and research opportunities in bioethics for students within the disciplines represented by the participating graduate units; to provide experience in multidisciplinary, interdisciplinary and interprofessional education and research; to provide students interested in bioethics with a common learning experience, and a network of mentors and peers.

- The **Collaborative Program in Cardiovascular Sciences** is an exciting program created to develop co-operative and joint cardiovascular focused graduate teaching and research across departmental boundaries under the Faculties of Dentistry, Medicine, Nursing, Pharmacy and Physical Education and Health. The Program builds on the strengths of the collaborating graduate departments (Dentistry; Exercise Sciences; Health Policy, Management and Evaluation; Institute of Biomaterials and Biomedical Engineering; Institute of Medical Science; Laboratory Medicine and Pathobiology; Medical Biophysics; Nursing; Pharmaceutical Sciences; Pharmacology; Physiology; Public Health Sciences; and Rehabilitation Science) and the clinical departments of Anesthesia, Medicine and Surgery - enhancing the visibility of cardiovascular studies and facilitating interdisciplinary training and research. The Program offers diverse areas of training including 2 major streams of studies: Cardiac and Vascular. We hold a variety of student enriching events such as: (a) research seminars hosted by our diverse faculty (Circulation Rounds), (b) annual Student Research Day, where the students share their work with each other, (c) a forum dinner, a more formal event where hot topics are discussed and program students get to mingle socially and (d) our summer CSI, which are field trips to off-site locations to experience differing translational cardiovascular research styles.
- The **Doctoral Collaborative Program in Health Care, Technology and Place (HCTP)** is a cross-divisional certificate program at the University of Toronto with 10 participating units (Biomedical and Biomaterials Engineering, English, HPME, MIE, IMS, Nursing, Pharmacy, Public Health, Rehabilitation Science, and Social Work). It is the only graduate collaborative program that simultaneously focuses on the social, spatial and technological configurations that characterize health care. HCTP provides an integrated, collaborative and interdisciplinary approach to research training. Currently, there are 24 doctoral students enrolled in the collaborative program: 42% already graduated and 58% still completing their studies. The program aims to: (1) prepare doctoral students to understand, explain, and improve health outcomes associated with geographically-dispersed and technologically-mediated health care; (2) bridge knowledge gaps among doctoral students working in the life sciences, physical sciences, social sciences, and humanities who are concerned with the interconnectedness of bodies, technologies, places, and modes of work in contemporary health care; and (3) provide mentorship in interdisciplinary scholarship, including leadership skills, collaboration, grant writing, and knowledge exchange. Ultimately the goal is to facilitate research conducted by scientifically-informed humanists and philosophically-informed physical and social scientists.
- The **Collaborative Program in Health Services and Policy Research** is to provide training in health services research for graduate students, to enhance the quality and breadth of trans-disciplinary training in health services research, and to include decision makers as active partners in teaching, program and curriculum planning, and the provision of field placements for students. This competency-based Collaborative Program focuses on developing expertise in the following five areas: 1) understanding the Canadian health care system, 2) ability to carry out health services research, 3) understanding theories regarding how the health of populations is produced, 4) understanding theories of health and health services knowledge production, and 5) knowledge exchange and development of research partnerships. Students participating in this Collaborative Program must complete a practicum, Summer Institute as well as a dissertation that focuses on health services and/or policy research.

- The **Collaborative Program in Women's Health** provides interdisciplinary training in women's health research and practice for graduate students at the University of Toronto with the goal of: Helping students develop shared understandings of the complex interactions of biology and environment, sex and gender; Providing students with the necessary skill set to undertake and lead interdisciplinary, collaborative health care research projects; Enhancing mutually beneficial relationships among researchers and practitioners of women's health across the university and its affiliated teaching hospitals. The program includes shared learning experiences including a student seminar that meets once a month and a core course (that usually runs during winter semester). Students will also participate in the Women's College Research Institute's Graduate Student Research Day . To successfully complete the program, students must also successfully complete the program requirements of their home graduate unit. Master's students who successfully complete the program will have the following notation added to their transcripts: 'Completed the Collaborative Program in Women's Health.'

# Research Appendices

## Appendix 12: Faculty by Major Areas of Research

## Appendix 12: Faculty by Major Areas of Research

The research areas of the Dalla Lana School of Public Health are epidemiology, biostatistics, social and behavioural science, public health policy, occupational and environmental health, and global health. Thus four of the five pillars of public health are covered, the other, Health Services Administration, occurs within the Department of Health Policy, Management and Evaluation.

### Faculty by major areas of research

The areas of research for faculty who have their primary appointment in the DLSPH are summarized in this section. The faculty member's research is listed under the research area that represents their major research theme, though a number of faculty have projects in more than one area. For them, their names are included as additional faculty within the research area but the description of their work is not duplicated. Twelve primary research themes were identified by the 85 faculty that provided information on their research. In the last 5 years 411 projects have been initiated or completed with total funding of \$132,510,012. The majority of these funds were directed to the institution where the faculty member performed their research. The amount directed to the School was \$42,545,489.

### Addictions (smoking, alcohol, gambling and illicit drugs)

Ten faculty identified Addictions as their primary research theme, and 3 more as a theme of interest. In the last 5 years 62 projects have been approved with total funding of \$21,425,693, all except \$3,014,910 directed through institutions affiliated with the School.

#### Assistant Professor Susan Bondy

Dr Bondy's major areas of research include addictive substances and mental health; health services and public health policy research, and general epidemiologic and survey research methods. She is lead of the Ontario Tobacco Survey initiative; has completed a multi-stage research and consultation project to develop a set of core competencies for epidemiologists working in the Canadian public health setting; a population-based public health prevention intervention study on the impact of publicly-provided Nicotine Replacement therapy and minimal behavioural support; a study to evaluate and describe the establishment of a comprehensive indoor smoking ban in a large mental health facility; a prospective study of the impact of alcohol use and different patterns of drinking on academic performance in a college population and a series of studies evaluating the impact of restrictions of smoking in indoor and outdoor public spaces in terms of second hand smoke exposure. In the last 5 years she has been principal investigator of 5 projects with total funding of \$483,359 and co-investigator of another 10.

#### Professor Mary Chipman

Professor Chipman has research interests in gambling behavior, addictions as they impact upon traffic collisions, violence and injury risk, health service use attributable to injury in traffic crashes, driver fatigue in traffic crashes and caregiver and child safety knowledge attitudes and behavior. She has also studied bicyclists injuries and teen driving behavior. In the last 5 years she has been principal investigator of 4 projects with total funding of \$195,170 and co-investigator of another 5.

#### Professor Roberta Ferrence, Executive Director, Ontario Tobacco Research Unit.

Dr Ferrence's research falls under three major themes: economic factors in smoking and other health behaviours, evaluation of legal interventions, and exposure to second hand smoke in public settings. Projects include the impact of tobacco taxation on smoking behaviour in subpopulations, the economic impact of a ban on smoking on the hospitality sector and exposure of barworkers to second hand smoke. In the last 5 years she has been principal

investigator of 8 projects with total funding of \$9,436,393 (including the Support of the Ontario Tobacco research Unit) and co-investigator of another 15.

Professor Kathryn Graham. Senior Scientist & Head, Social and Community Prevention Research, Centre for Addiction and Mental Health.

Dr Graham's research has examined environmental and motivational factors associated with aggression in licensed premises using observational data collected as part of a large scale randomized controlled study of the effectiveness of a program to prevent bar violence. She is participating in a multinational collaboration of over 40 countries relating to alcohol, gender, culture and health. In this collaboration she has focused on the role of alcohol in intimate partner violence as well as individual and country-level factors associated with harmful effects from drinking, the relationships between substance use and depression, and reasons for abstaining in different countries. In the last 5 years she has been principal investigator of 2 projects with total funding of \$2,112,311 and co-investigator of another 8.

Assistant Professor David A Korn

Dr Korn has research interests in the areas of gambling addiction, substance abuse, health promotion, health system reform, health policy and planning, harm reduction, problem prevention, youth gambling and media. His projects have included study of Youth Gambling Problems: Public Health Intervention Using the Internet and Partner Influences on Gambling; Hospitals, Gambling & the Public Good; Commercial Gambling Advertising: Understanding the Youth Connection; Gambling Marketing at Point-of-Sale; Posttraumatic Stress Disorder and Gambling; Government and Industry Interconnectedness on Gambling; and Youth, Gambling and Web 2.0: Towards and Understanding of the Net Generation and How they Gamble. In the last 5 years he has been principal investigator of 9 projects with total funding of \$1,413,450.

Associate Professor Robert Mann Senior Scientist, Social, Prevention and Health Policy Research, Centre for Addiction and Mental Health.

Dr Mann conducts research in the areas of alcohol and drug problems, associated mental health issues, and injury prevention. He has undertaken epidemiological research on impaired driving, and alcohol-related liver disease, suicide and homicide mortality. He has examined the impact on these measures of average or *per capita* alcohol consumption rates and factors that affect alcohol availability, as well as policies and prevention efforts, using time series and other methods. He has used regression-discontinuity methods to evaluate the impact of large-scale alcohol treatment initiatives. More recently, he has examined the relationship of cannabis use with collision risk and anxiety and mood disorder. In the last 5 years he has been principal investigator of 6 projects with total funding of \$1,462,225 and co-investigator of another 18.

Associate Professor Margaret Millson.

Dr Millson has been involved in a number of community-based research projects focused on prevention of HIV and hepatitis C infection among illicit drug users, related to both unsafe injection and unsafe crack smoking practices. She has also engaged in research related to broader issues of harm reduction and improvement of health for vulnerable drug using populations; research on preventive health care (e.g., immunizations) given to HIV-infected persons enrolled in the Ontario HIV Treatment Network Cohort Study; and research on the HIV prevention needs of vulnerable sub-populations of Ontario women. In the last 5 years she has been principal investigator of 4 projects with total funding of \$215,300, co-PI of 2 projects and co-investigator of another 9.

Assistant Professor Svetlana Popova. Scientist Public Health and Regulatory Policies, Centre for Addiction and Mental Health.

Dr Popova's research includes the estimation of burden and economic impact of Fetal Alcohol Spectrum Disorder (FASD) in Canada and she is collaborating in an international project to determine the Prevalence of Fetal Alcohol Syndrome (FAS) and FASD in selected countries. She

was involved in the WHO's Global Burden of Disease Comparative Risk Assessment, which provided an overview of alcohol consumption as a risk factor for burden of disease and injury. In the last 5 years she has been principal investigator of 4 projects with total funding of \$155,300 and co-investigator of another 4.

Professor Jurgen Rehm. Senior Scientist and Co-Head, Section Public Health and Regulatory Policies, Centre for Addiction and Mental Health.

Dr Rehm's research has concentrated on the epidemiology of substance use and abuse, including methodological advances such as new determination of disability weights for the burden of disease framework. His research also impacts upon population health regulatory policies, especially in the area of substance use and abuse (alcohol, tobacco, illegal drugs, abuse of psychoactive pharmaceuticals), burden of disease methodology, comparative risk assessment and cost-effectiveness assessment. In the last 5 years he has been principal investigator of 14 projects with total funding of \$5,244,554 and co-principal investigator of another 10 with total funding of \$9,816,626.

Associate Professor Carol J Strike.

Dr Strike's research interests include evaluating harm reduction programs, addiction treatment programs, methadone maintenance therapy, provider-client relationships, mental health programs and health services research. In the last 5 years she has been principal investigator of 8 projects with total funding of \$707,631, co-PI of 2 and co-investigator of 8 projects.

Other faculty working in this area:

Dr Flora Matheson, Dr Blake Poland, Dr Robert Schwartz

## Child and adolescent health

Five faculty identified Child and adolescent health as their primary research theme. In the last 5 years 8 projects have been approved with total funding of \$1,756,065, nearly all through institutions external to the School.

Assistant Professor Diego Bassani Epidemiologist - Centre for Global Health Research - St. Michael's Hospital.

The focus of Dr Bassani's research is estimates of causes of neonatal and child deaths in India. In addition he contributed to Dr. Jha's work on Tobacco related mortality in India and has been responsible for the child malaria mortality estimates for India. He has conducted a large case-control study on the use of solid fuels and child mortality in India and has analyzed trends in delayed immunization among Indian children and mortality from infectious conditions among children older than 5 years in India. He is co-investigator on 2 projects.

Professor Mary Corey. Senior statistician, Hospital for Sick Children.

Professor Corey's research is in the area of cystic fibrosis(CF). She has focused on statistical models to explain the extreme variability of disease in CF and the complex interactions between multiple genetic and environmental factors. She is working with a team of North American scientists to study the effect of modifier genes in a cohort of 2500 CF patients recruited from specialized CF clinics across Canada, in collaboration with 2 other large CF modifier studies at the University of North Carolina and Johns Hopkins University. Studies are underway to apply the discoveries of the CF modifier studies to more common diseases like chronic obstruction pulmonary disease. In the last 5 years she has been principal investigator of 1 project with funding of \$190,737 and co-investigator of another 9.

Assistant Professor Amy McPherson Scientist, Bloorview Research Institute

Dr McPherson's research focuses on the psychological impact of chronic conditions on children and their families. Previous work has involved children with asthma, diabetes and HIV, and now focuses on children/adolescents with physical and intellectual disabilities. Her work centres on

the involvement of children in their health and well-being, through empowerment and education and developing and evaluating multimedia resources to do this. She is interested in health promotion for children with chronic conditions, especially around weight management, as well as the role of children in healthcare consultations. In the last 5 years she has been principal investigator of 1 project with funding of \$2,500 and co-investigator of another 4.

Assistant Professor Jason D Pole. Scientist, Pediatric Oncology Group of Ontario.

Dr. Pole's research interests are in the areas of health care utilization among childhood cancer survivors, the effects of childhood cancer treatment specifically on education achievement and the financial impact of a childhood cancer diagnosis on the family and the long-term financial health of the survivor. Coupled with his work in pediatric oncology, Dr. Pole participates in a variety of other pediatric and adolescent health research in the areas of eating disorders, work injury and sexual health. In the last 5 years he has been principal investigator of 2 projects with funding of \$100,382 and co-investigator of another 6.

Professor Teresa To. Senior Scientist at the Child Health Evaluative Sciences, the Research Institute of the Hospital for Sick Children.

Professor To has developed a population-based research program that focuses on childhood asthma. Using pediatric health databases, she examines factors that influence the health of children with asthma and their health outcomes. Her current asthma care research program spans from the acute, primary care settings to the population levels. In the last 5 years she has been principal investigator of 8 projects with funding of \$1,442,443 and co-investigator of another 13.

## Chronic (non-communicable) disease epidemiology, prevention and screening

Sixteen faculty identified Chronic disease epidemiology, prevention and screening as their primary research theme, and 5 more as a theme of interest. In the last 5 years 65 projects have been approved with total funding of \$43,340,426, \$8,600,000 directly routed through the School.

Professor Elizabeth M Badley. Director, The Arthritis Community Research and Evaluation Unit.

The main theme of Dr Badley's research relates to chronic disabling health conditions, especially chronic diseases in the population using arthritis and other musculoskeletal conditions as models and the population impact of arthritis and strategies to reduce that impact. A further theme is health services research on need, access and provision of care for people with arthritis. This includes analysis of geographic variations in access and provision of care, surveys of health providers (rheumatologists, orthopedic surgeons), studies of alternative models of care (with focus on an extended role for rehabilitation professionals) and the development and evaluation of a primary health care arthritis intervention. Another area relates to the use of models for understanding of disability, comprising work on theoretical frameworks for social participation, the role of personal and environmental contextual factors as well as an ongoing study of social participation in people with osteoarthritis and those without this condition. In the last 5 years she has been principal investigator of 11 projects with total funding of \$4,034,590 and co-investigator of another 22.

Associate Professor Anna M. Chiarelli. Lead scientist in Population Studies and Surveillance at Cancer Care Ontario.

Dr. Chiarelli's research focuses on the prevention of cancer with the aim of determining the effectiveness of cancer screening on reducing mortality in different populations, the clinical effects of delays on diagnosis and barriers to screening. She is also involved in the improvement of methodology for the evaluation of breast screening programs. In the last 5 years she has been principal investigator of 5 projects with total funding of \$1,931,825 and co-investigator of another 4.

Associate Professor Pierre Côté. Scientist, Toronto Western Research Institute, Toronto Western Hospital

Dr Côté's research focuses on the epidemiology of musculoskeletal pain and disability. He is also leading the University Health Network Whiplash Intervention Trial, a pragmatic randomized trial of the management of whiplash injuries in Ontario. He has conducted epidemiological studies of the risks (vertebrobasilar artery stroke and cauda equine syndrome) associated with chiropractic treatment and studies aimed at describing the burden of pain and disability associated with neck pain and mild traumatic brain injuries in injured workers who make a workers' compensation claim to the Ontario Workplace Safety and Insurance Board. In the last 5 years he has been principal investigator of 4 projects with total funding of \$3,300,243, Co-PI of 2 projects and co-investigator of another 10.

Associate Professor Michelle Cotterchio Scientist, Population Studies and Surveillance, Cancer Care Ontario

Dr. Cotterchio's research program focuses on breast, colorectal and pancreatic cancer - and modifiable risk factors as well as the interaction with genetic factors. She has conducted many large population-based case-control studies evaluating cancer risk and the association between nutrition (e.g., phytoestrogen intake, meat consumption), other modifiable factors (e.g., medication use, vitamin D, colon cancer screening), and genetics (e.g., polymorphisms in carcinogen metabolizing enzymes). In the last 5 years she has been principal investigator of 6 projects with total funding of \$2,515,995, co-PI of 2 projects and co-investigator of another 9.

Professor Emeritus Gail McKeown Eyssen.

Dr Eyssen's research has focused primarily on colorectal cancer. She is one of the investigators from Ontario involved in an international, six centre initiative, the Co-operative Family Registry, which has collected epidemiologic information, and blood and tissue samples, from cases and selected family members, as well as from controls (in some centres, including Ontario). She has also served as the Toronto centre PI of an international multi-centre trial funded by NIH in which it has been demonstrated that aspirin but not folic acid supplementation can reduce the risk of recurrence of colorectal polyps, and has been a co-investigator of trials of dietary interventions designed to improve lipid profiles related to the metabolic syndrome. In the last 5 years she has been co-investigator of 6 projects.

Associate Professor Eric J Holowaty. Senior Consultant - Population Studies and Surveillance, Cancer Care Ontario.

Dr Holowaty's research interests include historical record linkage cohort studies; second primary cancers; predictive modeling; small area mapping and spatial analysis; cancer registration and quality control. He was the Principal Investigator for the Ontario Health and Environment Integrated Surveillance Project, a collaborative GIS project for mapping cancer, including its outcomes and determinants, as well as for risk assessment in relation to potential environmental hazards and cancer. In the last 5 years he has been principal investigator of 4 projects with total funding of \$588,735, and co-investigator of another 15.

Assistant Professor Rayjean Hung. Cancer Care Ontario Research Chair in Population Studies, Samuel Lunenfeld Research Institute of Mount Sinai Hospital.

Dr. Hung has contributed to the establishment of the International Lung Cancer Consortium (ILCCO) and has been its Scientific Coordinator since its inception. Dr. Hung is leading several data pooling projects within ILCCO including coordinated genotyping, medical condition and alcohol consumption and lung cancer risk and leads the post-genomewide association research initiative on lung cancer. Her main interests in lung cancer genetics include pathway analysis, hierarchical modeling, resequencing and risk prediction. Dr. Hung has also been collaborating with International Agency for Research on Cancer to set up the International Study of Embryonal Tumors (ISET). In the last 5 years she has been principal investigator of 4 projects with total funding of \$1,775,285 and co-investigator of another 10.

Professor Prabhat Jha. Director, Centre for Global Health Research, Li Ka Shing Knowledge Institute, St Michael's Hospital

Dr Jha's research includes large scale epidemiological studies including launching a Million Death Study of Indian households; creation of innovative methods to determine cause of death using "verbal autopsy" and reliable quantification of HIV-1 transmission in the population. He is undertaking a survey of adults 18 + for lifestyle factors and selected simple physical measurements (height, weight, waist-hip ratio, blood pressure, peak flow) in over 1 million homes. Among a sub-sample of 10,000 adults, blood spots have been collected so as to study the genetic and biological correlates of baseline risk. The eventual aim is to expand blood-based measurement to 2-3 million adults. In the last 5 years he has been principal investigator of 8 projects with total funding of \$12,760,968 and co-investigator of another 2.

Assistant Professor Victoria Kirsch. Scientist, Cancer Care Ontario.

Dr. Kirsh is involved in developing the Ontario Health Study, being particularly involved in dietary assessment methodology for this cohort. She is the Principal Investigator on a study to assess the risk of cancer associated with the use of computed tomography scans among children and adolescents and is the new Principal Investigator for the Canadian Study of Diet, Lifestyle and Health, a cohort study of 75,000 alumni from three Canadian universities, and will be involved in various research projects examining the association between baseline dietary and lifestyle factors and subsequent cancer risk among cohort members. Other research projects include those within the Ontario Breast Screening Program, evaluating differences between screen and interval-detected cancers and the effect of hormone therapy on tumour characteristics; and within the Ontario Women's Health Study, evaluating the effect of phytoestrogen intake on the risk of breast cancer. In the last 5 years she has been principal investigator of 4 projects with total funding of \$342,348 and co-investigator of another 7.

Associate Professor Julia Knight Senior Investigator, Samuel Lunenfeld Research Institute, Leader, Prosserman Centre for Health Research, Mount Sinai Hospital, Toronto.

Dr Knight's research concerns breast cancer etiology, including the potential protective role of vitamin D in breast cancer and the exploration of optical spectroscopy of the breast as a potential tool to evaluate breast cancer risk. She is co-PI of the Ontario Familial Breast Cancer Registry, part of the Breast Cancer Family Registry funded by the US NIH. She is the local site PI in a multi-site study of genetic and other factors associated with the risk of contralateral breast cancer in women with a first primary breast cancer and will shortly begin a study of body composition and body fat distribution and biomarkers related to breast cancer risk. In the last 5 years she has been principal investigator of 5 projects with total funding of \$1,740,308 and co-investigator of another 6.

Professor Nancy Kreiger Head of the Division of Epidemiology, DLSPH. Senior Scientist, Population Studies, Cancer Care Ontario

Dr Kreiger led the development of the Ontario Health Study, a broadly-defined study of chronic diseases within Ontario, part of a national cancer cohort. In this project, it is planned to identify determinants of risk factors for several chronic diseases; collect and store biospecimens; and collect community-level data to allow for multilevel modeling and for studies of the impact of municipal policies on risk factors and on disease outcomes. She is co-principal investigator of the Canadian Multicentre Osteoporosis Study, and until recently principal investigator of the Canadian Study of Diet, Lifestyle, and Health. In the last 5 years she has been principal investigator of 3 projects with total funding of \$142,025, co-principal investigator of one with funding of \$8,441,132 and co-investigator of another 13.

Assistant Professor Verna Mai. Director of Screening Programs, Cancer Care Ontario.

Dr Mai's research projects relate to cancer screening. In the last 5 years she has been co-principal investigator of 1 project with funding of \$226,000 and co-investigator of another 4.

Professor Loraine D Marrett. Senior Scientist and Director, Surveillance, Population Studies and Surveillance, Cancer Care Ontario

Dr Marrett's research primarily comprises cancer surveillance, with particular foci on special subpopulations such as Aboriginals, adolescents and young adults and those exposed to carcinogens in the workplace, and on developing and using high quality data, indicators and methods. Additional research areas include ultraviolet radiation and skin cancer and cancer in relation to workplace exposures. Surveillance research with First Nations populations demonstrated survival deficits for Ontario First Nations women with breast cancer which led to a research project to explore determinants of this survival deficit. In the last 5 years she has been principal investigator of 6 projects with total funding of \$1,754,894 and co-investigator of another 7.

Professor John R McLaughlin. Vice President, Population Studies & Surveillance, Cancer Care Ontario.

Dr. McLaughlin's research has concentrated on interdisciplinary, population-based studies of the relative contribution of environmental and genetic factors in cancer etiology; identifying and characterizing determinants of risk, health outcomes, genetic risk and environmental modifiers of risk; as well as evaluation of processes for risk communication and strategies for cancer control. He is the lead cancer epidemiologist and founding director of the Ontario Health Study. In the last 5 years he has been principal investigator of 2 projects with total funding of \$4,627,210 and co-investigator of another 14.

Professor Anthony B Miller. Associate Director Research, Dalla Lana School of Public Health. Dr Miller is the Principal Investigator of the Canadian National Breast Screening Study (CNBSS), currently entering its 20-25 follow-up years, and a collaborator in the US Prostate, Lung, Colon and Ovary screening trial. He is a co-investigator in the Mumbai Screening Trial, and scientific advisor to breast screening projects in Egypt, Iran, Iraq, Morocco, Oman, Sudan and the Yemen. As he did not have an active faculty appointment at the time he initiated the 20-25 year follow up of the CNBSS, Dr Steven Narod was the lead applicant on that grant, included with Dr Narod's research funding. He is a scientific advisor to the Ontario Health Study.

Professor Kue Young. TransCanada Pipelines Chair in Aboriginal Health & Well-being. Professor Young's research interests are in aboriginal health, epidemiology of diabetes and cardiovascular diseases, health surveys and data linkage. He leads the CIHR Team in Circumpolar Health Research and is sustaining and transforming a network for indigenous health research development in Ontario. In the last 5 years he has been principal investigator of 2 projects with total funding of \$8,600,000.

Other faculty working in this area:

Dr Farah Ahmad, Dr Ilene Hyman, Dr Steven Narod, Dr Robert Schwartz, Dr Teresa To

## Genetic epidemiology and Statistical Genetics

Six faculty identified Genetic epidemiology and statistical genetics as their primary research theme, and 1 more as a theme of interest. In the last 5 years 37 projects have been approved with total funding of \$14,372,822; \$4,216,123 routed through the School.

Professor Shelly Bull. Samuel Lunenfeld Research Institute of Mount Sinai Hospital. Dr Bull's research program is concerned with innovative statistical approaches to dissect genetic and environmental determinants of complex human traits including estimation and inference for multinomial logistic regression, development and application of statistical methods in human genetics and genome-wide studies, and interdisciplinary research to evaluate molecular markers in human cancer. New approaches for practical inference in logistic regression models for multiple-category outcomes particularly useful with sparse data have been disseminated. A general resampling method to address the problem of upward bias

in genetic effect estimation has been developed. Related studies are concerned with alternative approaches to gene discovery that rely on gene-based or region-based approaches. She also collaborates in the design and analysis of studies to determine the prognostic value of specific molecular markers in identifying subgroups of patients that may benefit from new therapies. In the last 5 years she has been principal investigator of 7 projects with total funding of \$3,152,000 and co-investigator of another 7.

Assistant Professor France Gagnon. Canada Research Chair in Genetic Epidemiology  
Dr Gagnon's research focuses on the genetic epidemiology of cardiovascular diseases and risk factors. Although her research is highly specialized in genetic epidemiology, it reflects a cross-disciplinary perspective as it requires the integration of fundamental concepts and principles in biology, genetics, statistics, and epidemiology. Her program involves three different levels of research: discovery and characterization of genetic determinants underlying cardiovascular diseases and risk factors, the main focus of her research program; assessment of novel study designs and analytic approaches, and knowledge synthesis and transfer, which include training as an integral part. Her program aims at bridging laboratory-based and population-based research, with the overall goal of improving our ability to prevent and manage cardiovascular diseases. In the last 5 years she has been principal investigator of 11 projects with total funding of \$3,822,873 and co-investigator of another 3.

Assistant Professor Rafal Kustra  
Dr Kustra is engaged in research in the area of statistical methods in high-throughput genomics. The methodological research includes designing new methods for signal estimation, new inference techniques, and new methods for data description and hypothesis generation. He has also been engaged in a number of large collaborative projects in the area of colorectal cancer genomics. In the last 5 years he has been principal investigator of 4 projects with total funding of \$393,250 and co-investigator of another 2.

Professor Steven Narod. Tier Canada Research Chair in Breast Cancer, Women's College Research Institute.  
Dr Narod's research covers many different areas. For hereditary breast and ovarian cancer, he collects baseline and follow-up questionnaires on study subjects from many institutions in North America and Europe. He is studying the distribution of BRCA1 and BRCA2 mutations in the Bahamas, Venezuela, Peru, Mexico, Colombia, Costa Rica, Pakistan, Vietnam, and Greece focusing on both genetic and environment factors that contribute to higher than normal incidence of cancer. The largest DNA bank in the world for esophageal cancer has been established at Dr. Narod's laboratory to study genetic susceptibility to this cancer and identify the gene or genes responsible for the hereditary basis of esophageal cancer in Iran. He is studying familial cancer in women of Ashkenazi Jewish ancestry to identify those with a genetic predisposition to developing cancer through a saliva DNA test. A BRCA1, BRCA2 and Ovarian Cancer survivorship study seeks to review the genetic, clinical and pathological features of a series of 1500 ovarian cancer patients to integrate this information into a predictive model for ovarian cancer survival. In the last 5 years he has been principal investigator of 12 projects with funding of \$6,139,892 and co-investigator of another 5.

Professor Lyle Palmer Executive Director of the Ontario Health Study and Director of the Genetic Epidemiology Program, Ontario Institute for Cancer Research.  
Together with many partner organizations across Ontario, Prof Palmer is leading a large-scale expansion of the provincial capacity in the area of genetic epidemiology. Before moving to Canada in July 2010, Prof Palmer was the Foundation Chair in Genetic Epidemiology and founding Director of the Centre for Genetic Epidemiology and Biostatistics at the University of Western Australia. The Ontario Health Study, with funding secured in excess of \$20 million, is administered through the Ontario Institute for Cancer research.

Associate Professor Lei Sun

Dr Sun's research focuses on development and application of statistical methodologies and computational tools for genetic studies of complex human diseases and traits. Her recent work has focused on problems arising from data generated from high-throughput genotype technologies, including high-dimensional hypothesis testing and robust association methods. Dr. Sun also has substantial on-going collaboration work focusing on genetic studies of Type 1 Diabetes, Cystic Fibrosis modifiers and Thrombosis. In the last 5 years she has been principal investigator of 3 projects with funding of \$864,810 and co-investigator of another 1.

Other faculty working in this area:

Dr Rayjean Hung

## Global Health

Four faculty identified Global health as their primary research theme, and 4 more as a theme of interest. In the last 5 years 12 projects have been approved with total funding of \$4,758,452; \$1,274,902 routed through the School.

Professor Solomon R Benatar

Professor Benatar's research is directed to understanding and defining global health and the forces that influence the health of populations across the globe. The flow of research has been from evaluating data to make a diagnosis of the problems that lie at the heart of disparities in global health, to conceptualizing how the current situation has been reached and consideration of ways in which challenges to global health could be addressed. In the last 5 years he has been principal investigator of a project in South Africa funded by the US NIH Fogarty International Center with total funding of \$1,150,000.

Associate Professor Donald Cole.

Donald Cole's research builds on experience in work & health and agriculture & health in Canada, Latin America and Africa. He has become particularly interested in public health intervention research in these fields, leading projects on reducing pesticide use among Andean small farmers and assessing the contributions of urban agriculture to health and nutrition. More recently, he has built on his long-standing work internationally to begin educational research on evaluating health research capacity development in a global context. In the last 5 years he has been principal investigator of 6 projects with total funding of \$1,274,902, co-PI of another 2 and co-investigator of 16.

Assistant Professor Lisa Forman. Director of the Comparative Program on Health and Society at the Munk School of Global Affairs.

Dr Forman's research focuses on further developing the right to health impact assessment methodology for implementation in low and middle-income countries. She is also exploring the broader relevance of human rights and the right to health to global health, including in relation to maternal mortality and mental health. In the last 5 years she has been principal investigator of 2 projects with total funding of \$96,000, and co-investigator of 1.

Associate Professor Halla Thorsteinsdóttir. McLaughlin Rotman Centre for Global Health.

Dr Thorsteinsdóttir's research focuses on health biotechnology in developing countries and emerging economies and its role in addressing health problems and contributing towards economic development. She is examining the role of Canada's collaboration for health research and innovation with developing countries and health biotechnology collaboration among developing countries. In the last 5 years she has been principal investigator of 3 projects with total funding of \$1,337,550 and co-investigator of another 1.

Other faculty working in this area:

Dr Diego Bassani, Dr Gillian Einstein, Dr Suzanne Jackson, Dr Prabhat Jha

## Health Promotion, Social Determinants of Health and Social Epidemiology

Eleven faculty identified Health promotion, Social determinants of Health or Social Epidemiology as their primary research theme, and 4 more as a theme of interest. In the last 5 years 65 projects have been approved with total funding of \$5,600,999, all except \$1,204,389 routed through the School.

### Assistant Professor Farah Ahmad

Dr. Ahmad conducts mixed-method research with the aim to address health disparities through health promotion and prevention of chronic illnesses and diseases. The thrust of her research work concerns re-orientating health services and creating supportive environments in the community for populations marginalized by their life context (e.g. exposure to violence or mental distress) and/or intersecting social determinants of health, such as gender, migration, and ethnicity. Dr. Ahmad's research foci include: domestic violence; cancer screening; mental health; immigrant/ethnic health; women's health; eHealth; provider-patient communication; and access to health services. Dr. Ahmad has strong collaborative ties with several health and community based institutions. In the last 5 years she has been principal investigator of 4 projects with total funding of \$200,118, Co-PI of another 4 and co-investigator of 7.

### Assistant Professor Dionne Gesink.

Over the past 5 years, Dr Gesink has a research program in the area of social epidemiology and infectious diseases. Her focus is on the spatial, social, cultural, environmental and behavioural factors influencing sexual and reproductive health and infectious disease transmission. The research has been conducted in two main streams: the spatial epidemiology of sexually transmitted infections, and sexual and reproductive health with First Nations, Inuit and Métis communities in northern, rural, and frontier communities. In the last 5 years she has been principal investigator of 9 projects with total funding of \$785,894 and co-investigator of another 2.

### Assistant Professor Ilene Hyman Research Associate, Cities Centre, University of Toronto.

Dr Hymans research interests include health equity, immigrant and refugee health, intimate partner violence, women's health and social determinants of health. In the last 5 years she has been principal investigator of 8 projects with total funding of \$357,480 and co-investigator of another 12.

### Assistant Professor Suzanne Jackson

Dr Jackson's research interests are health promotion planning and evaluation; indicators of community capacity, realist evaluation; participatory action research, participatory evaluation processes; qualitative research; economic evaluation in health promotion; First People's health/circumpolar health promotion; strategic planning and group process and mental health promotion. In the last 5 years she has been principal investigator of 7 projects with total funding of \$1,017,300 and co-investigator of 5.

### Associate Professor Scott Leatherdale. Scientist and CCO Research Chair, Department of Population Studies and Surveillance, Cancer Care Ontario.

The focus of Dr Leatherdale's research is understanding the association between environment contexts (both social and physical environments) and cancer risk behaviours; and developing systems to improve the uptake of evidence-based practices in population-based cancer control prevention programming. He aims to develop the infrastructure and systems required to create links between research and practice, to provide stakeholders with the evidence they need, when they need it, in a form that is useful for guiding and evaluating population-level cancer control prevention programs. For the last five years the majority of his research has been focused on the development and implementation of the School Health Action, Planning and Evaluation System (SHAPES). In the last 5 years he has been principal investigator of 2 projects with total funding of \$425,662, co-PI of 6 projects and co-investigator of 13.

Assistant Professor Sally Lindsay Scientist, Bloorview Research Institute

Dr Lindsay's research focuses on the sociology of work, social inclusion and participation, social inequalities, and children/youth with disabilities. She currently leads a project on the experience of exclusion and bullying among disabled youth in addition to assessing anti-bullying interventions and a project exploring the employment experiences of disabled adolescents. In the last 5 years she has been principal investigator of 6 projects with total funding of \$157,590 and co-investigator of another 3.

Assistant Professor Flora I Matheson Senior Research Associate, Centre for Research on Inner City Health, St. Michael's Hospital

Dr Matheson's research agenda focuses on health inequalities, specifically in relation to gender, substance use disorders/mental illness and the intersection of these fields. Her research is conducted in recognition that males and females experience health in very different ways. Dr. Matheson is actively engaged in research on problem gambling and illicit drug use, substance abuse and re-integration experiences of women offenders, and the relationship between traumatic brain injury, substance abuse and offender institutional/community adjustment. Her position with Correctional Service Canada provides her a venue to present the findings to key policy-makers within the service as these findings will also have implications for primary care delivery for offenders living in Canadian communities. In the last 5 years she has been principal investigator of 6 projects with total funding of \$263,657 and co-investigator of 4.

Associate Professor Peggy McDonough

Dr McDonough's research focuses on the social determinants of health in a comparative perspective. Her work involves charting inequalities in health, especially as they are shaped by socioeconomic position and gender, and exploring the features of social life that give rise to such differences. In the last 5 years she has been principal investigator of 5 projects with total funding of \$1,411,708 and co-investigator of 1.

Assistant Professor Cameron Norman

Dr Norman leads the Youth Voices Research Group (YVRG), which currently focuses on research related to eHealth, public engagement, and social networks for health. The YVRG has led a series of projects looking at a variety of issues including: food systems and health, youth access to cigarettes and smoking cessation, the social impact of youth transitions into adulthood, health literacy and social media use for health promotion and tobacco control. The group is currently engaged in a two-year initiative engaging youth and young adults as navigators within the health system. In the last 5 years he has been principal investigator of 12 projects with total funding of \$821,622 and co-investigator of 2.

Associate Professor Blake Poland

The two primary substantive foci of Dr Poland's research are: community development as an arena of practice for health professionals and the settings approach to health promotion and the social context of health promotion practice. He continues to do some work in tobacco control, but increasingly his focus is shifting to environmental health justice and community resilience, which complements a longstanding interest in the health of marginalized groups. He also publishes on issues of theory and method in qualitative health research. In the last 5 years he has been principal investigator of 6 projects with total funding of \$159,970 and co-investigator of 17.

Assistant Professor Heather Scott-Marshall Researcher, Institute for Work and Health.

Dr. Scott-Marshall's research is focused on investigating the social (primarily workplace) determinants of health using large population-level health surveys and investigates the health consequences of new forms of work-related insecurity arising from changes to work and workplaces. A key aspect of her work involves evaluating social inequalities in exposures to work-related insecurity according age, gender and race to investigate factors leading to

different health outcomes in these groups. The second major component of her research involves an analysis of the social and economic consequences of work injury, with a particular focus on the impact on income trajectories, marriage and family. This research is undertaken using a linkage of workers' compensation claims data from two provinces with a longitudinal file of Revenue Canada tax records.

Other faculty working in this area

Dr Elizabeth Badley, Dr Gillian Einstein, Dr Amy McPherson, Dr Robert Schwartz

## Infectious disease epidemiology and modeling

Seven faculty identified Infectious disease (including HIV/AIDS) as their primary research theme, and 4 as a theme of interest. In the last 5 years 38 projects have been approved with total funding of \$15,555,745, all except \$3,393,350 routed through the School.

Professor Liviana Calzavara. Deputy Director, HIV Social, Behavioral and Epidemiological Studies Unit.

Dr Calzavara conducts research that increases understanding of social, economic, and structural forces that contribute to HIV/AIDS transmission in order to develop more effective intervention and prevention efforts aimed at reducing HIV-related sexual and drug-using risk among vulnerable populations in Canada and internationally. Her research endeavours fall under: Social Determinants of Health and Health-Related Risk Behaviours, Disease and Behavioural Surveillance, Prevalence of Infections (HIV, HCV, STI), Social Epidemiology, Research Design and Methods, International Health, Addictions, Sexual Health, HIV/STI/HCV Prevention and Intervention. In the last 5 years she has been principal investigator of 10 projects with total funding of \$6,332,474 (including one large project with Ted Myers as co-principal investigator) and co-investigator of another 5.

Associate Professor Natasha Sarah Crowcroft. Scientist in Surveillance and Epidemiology in the Ontario Agency for Health Protection and Promotion.

Dr Crowcroft holds her primary academic appointment in the University of Toronto in the Department of Laboratory Medicine and Pathobiology, though by arrangement with that Department, her research funding flows through the DLSPH. Her research comprises evaluation of the public health and epidemiological impact of immunization programs and generation of data for decision making; infectious disease epidemiology; surveillance and public health; vaccine safety; knowledge attitudes and behaviour and immunization. In the last 5 years she has been principal investigator of 10 projects with total funding of \$2,900,876 and co-investigator of another 5, as well as being principal investigator and lead for epidemiology of the European Commission funded Diphtheria Research and Surveillance Network until September 2007 funded to \$2.08 million.

Assistant Professor Shelly Deeks. Associate Director of Surveillance and Epidemiology at the Ontario Agency for Health Protection and Promotion.

Dr Deeks research interests include comprehensive vaccine program evaluation, including both process and outcome evaluations, adverse events following immunization, and outbreak investigations involving vaccine preventable diseases. In the last 5 years she has been co-investigator for 7 projects.

Associate Professor David N Fisman

Dr Fisman's research relates to the development of novel epidemiological tools for the study of infectious diseases, including development of mathematical models of disease that have the potential to be applied in front-line clinical and public health settings. Current substantive areas of interest include: Seasonality of Infectious Diseases and Effects of Climate Change on Infectious Disease Dynamics, Application of Dynamic Modeling Methods to Cost-Effectiveness of Communicable Disease Control and Laboratory-Based Epidemiology of Infectious Diseases

through his work with the Public Health Laboratory, Toronto. In the last 5 years he has been principal investigator of 5 projects with total funding of \$700,894 and co-investigator of another 4.

Professor Ted Myers. Head, Division of Social and Behavioural Health Sciences; Director, HIV Social, Behavioural and Epidemiological Studies Unit.

Dr Myer's research is primarily in the area of HIV/AIDS and co-infections, in particular, hepatitis C and sexually transmitted diseases. It is predominantly community-based, utilizing both survey and biologic methods to determine prevalence and incidence. It is based on the premise that there are multiple epidemics, and therefore attempts to identify minority and marginalized groups where there is greater burden of the disease. His research focuses on a multilevel understanding of behaviour; specifically understanding of the different cultural and social contexts of risk, non-risk behaviours and other health seeking behaviours, and includes the context of relationships and power differentials within relationships. Populations on which he has focused include gay and bisexual men, injection drug users, drug and substance abusers, persons from endemic populations and aboriginals. The work has been undertaken locally, provincially, nationally and internationally including countries in Africa and Asia. In the last 5 years he has been principal investigator of 6 projects with total funding of \$2,619,151 and co-investigator of another 10.

Associate Professor Janet Raboud. Prosserman Center for Health Research, Mount Sinai Hospital.

Dr. Raboud's research focuses on clinical and methodological issues in longitudinal studies of HIV infected individuals. As a biostatistician, she collaborates widely with clinicians, clinical trialists, epidemiologists, immunologists, virologists and other scientists. In the last 5 years she has been principal investigator of 3 projects with total funding of \$393,350 and co-investigator of another 27.

Professor Robert S Remis.

Dr Remis's research focus is on HIV/AIDS and, to a lesser extent, on other sexually transmitted infections (STIs) and hepatitis C. An annual report with detailed analyses on HIV diagnoses, AIDS incidence, mother-to-infant HIV transmission and HIV-related mortality is produced and HIV incidence and prevalence in populations at-risk for HIV infection is measured and modeled. His research studies, include a study of HIV and other STIs among female sex workers in Shanghai, China and a study of the HIV and STI interactions among homosexual men and African-Caribbean populations in the Toronto region. In the last 5 years he has been principal investigator of 4 projects with total funding of \$2,609,000 and co-investigator of another 2.

Other faculty working in this area:

Dr Dionne Gesink, Dr Judy Gould, Dr Prabhat Jha, Dr Margaret Millson

## Knowledge Translation and Practice Based Implementation Science

Three faculty identified Knowledge translation as their primary research theme, and 8 more as a theme of interest. In the last 5 years 3 projects have been approved with total funding of \$613,498, none through the School.

Assistant Professor Amparo Casanova. Senior statistician, Canadian Heart Research Centre.

Dr Casanova's research has been focused on: development of qualitative and quantitative methods for evaluating both preventive measures and management of patients at high risk of cardiovascular events (patients with diabetes, dyslipidemia, hypertension or established cardiovascular disease); study of the efficacy and safety of new procedures in the management of patients with acute coronary syndrome in different clinical settings; and evaluation of the effectiveness of knowledge translation programs in the context of diagnosis and therapeutic

management of patients with diabetes, dyslipidemia, established cardiovascular disease, and pulmonary arterial hypertension. In the last 5 years she has been co-investigator of 13 projects.

Assistant Professor Judy Gould. Director of Research and Education Canadian Working Group on HIV and Rehabilitation.

Dr Gould has been involved in knowledge exchange research within the cancer community, breast cancer research as it pertains to health care inequities and research into the reasons why women delay seeking health care when they have locally advanced breast cancer. More recently she has been engaged in HIV and Aging research as well as arts based research with women who physical disabilities. In the last 5 years she has been principal investigator of 3 projects with total funding of \$613,498 and co-investigator of 4.

Assistant Professor Kevin E Thorpe

Mr Thorpe's research activity is largely clinical trials related. In addition, he has co-authored four systematic reviews. In the last 5 years he has been co-investigator of 12 projects.

Other faculty working in this area:

Dr Elizabeth Badly, Dr France Gagnon, Dr Jennifer Keelan, Dr Patrick Loisel, Dr Robin Mason, Dr Anthony Miller, Dr Steven Narod, Dr Blake Poland

## Methodological research in biostatistics, demography and epidemiology

Five faculty identified Methodological research in biostatistics as their primary research theme, and 4 more as a theme of interest. In the last 5 years 11 projects have been approved with total funding of \$551,618.

Assistant Professor Patrick E Brown. Scientist, Cancer Care Ontario.

Dr Brown's research is concerned with developing novel statistical methodology for addressing problems in public health relating to spatial, longitudinal, hierarchical data. This involves spatial point processes, geostatistics, multi-state models, and generalized linear mixed models, with local-EM and MCMC inference methods. Current projects include spatial modelling of area-censored lupus and gonorrhea incidence data, and unobserved events in cancer screening and influenza epidemics. In the last 5 years he has been principal investigator of 4 projects with funding of \$104,000 and co-investigator of 4.

Professor Paul Corey Associate Director, Education, DLSPH.

Dr Corey's research interests are analysis of environmental and occupational studies analysis of nutritional science studies. In the last 5 years he has been co-investigator of 7 projects.

Assistant Professor Annie Dupois. Statistician, the Hospital for Sick Children.

Dr Dupois research interests are in Item Response Theory, Survival Analysis, Multivariate models, Graphical Methods, Simulations, Cystic Fibrosis, Autism, and Learning Disabilities. In the last 5 years she has been co-investigator of 5 projects.

Professor Michael Escobar

Dr Escobar's research involves both statistical research and collaborative research. The main focus of his statistical research is developing computational nonparametric bayesian methods. His work in this area relates to a wide range of disciplines including machine learning, econometrics, genomics, pharmokinetics, and environmetrics. Also, he has been heavily involved in knowledge translation of Bayesian methods by doing a series of one day workshops in Canada. His collaborative research involves applying statistical techniques to a wide range of public health and biomedical research areas. These include work in psychiatry (such as learning disability, schizophrenia, and suicide), epidemiology of head injury, blood supply safety, and behavioural issues associated with HIV. These collaborations involve a large

diversity in study designs and statistical methods. In the last 5 years he has been principal investigator of 3 projects with total funding of \$2,637,000 and co-investigator of another 2.

Professor Wendy Lou. Head, Division of Biostatistics

Dr Lou's research involves the development of statistical methodology for application to various healthcare strategies and interventions, in areas such as genomic sequence analysis, statistical quality monitoring, and sequential analysis of clinical trials. A major underlying component of her research is the determination and the efficient computation of exact probability distributions of complex statistical measures using the method of Finite Markov Chain Imbedding; for many practical applications, she has demonstrated that the use of standard approximations of such distributions can lead to erroneous statistical interpretations of study data. In the last 5 years she has been principal investigator of 7 projects with total funding of \$447,618 and co-investigator of another 13.

Other faculty working in this area

Dr Susan Bondy, Dr Shelly Bull, Dr Janet Raboud, Dr Robert Schwartz

## Occupational and Environmental Health

14 faculty identified Occupational and Environmental health as their primary research theme, and 4 more as a theme of interest. In the last 5 years 71 projects have been approved with total funding of \$16,052,088; \$11,067,751 through institutions associated with the School.

Assistant Professor Frederick C Breslin. Scientist, Institute for Work and Health.

Dr Breslin's research interests include social determinants of work injuries among youth, geographic variation in work injuries and the relationship between part-time employment on adolescent health behaviours. In the last 5 years he has been principal investigator of 3 projects with funding of \$237,387 and co-investigator of 5.

Assistant Professor Jeffrey R Brook Research Scientist, Environment Canada

Dr Brook's research focuses on particulate exposures and their effects on health, characterizing human exposures and subsequent assessment of their influence on the development of chronic cardiovascular and respiratory disease. He also studies urban air quality in relation to how traffic and industrial sources contribute to population exposure. In the last 5 years he has been principal investigator of 5 projects with funding of \$4,277,000 and co-investigator of 10.

Assistant Professor Paul Bozek

Dr Bozek's research is on quantitative exposure measurement in worker populations. He has been determining asbestos fibre concentrations that may be released during certain high risk tasks (waste removal, personnel decontamination, teardown) and assessing what work practices and factors affect the fibre release into buildings; studying the use of a Fiber optic sensor for the detection of hidden indoor mould and undertaking a pilot project on Measurement of Accuracy and Precision of Short-Period Air Sampling by Direct-Reading Instruments. In the last 5 years he has been principal investigator of 2 projects with funding of \$102,000 and co-investigator of 1.

Professor J David Cassidy. Senior Scientist, Division of Health Care and Outcomes Research, Toronto Western Research Institute.

Dr Cassidy's research program focuses on injury epidemiology and especially occupational injuries, traffic injuries and musculoskeletal injuries. He is interested in determinates of recovery from these injuries and the effects of insurance policies on recovery as well as rehabilitation and tertiary prevention. In the last 5 years he has been principal investigator of 4 projects with total funding of \$3,402,108, co-principal investigator of 4 and co-investigator of another 10.

Associate Professor Ray Copes Director, Environmental and Occupational health, Ontario Agency for Health protection and Promotion (OAHPP).

Supporting and collaborating with a broad group of government and non-government stakeholders, Dr Copes leads the development and implementation of OAHPP's strategies, policies, services and other initiatives in environmental and occupational health. He also works with the Knowledge Exchange team to ensure that the results of OAHPP's research and other knowledge products are based on best evidence, and are presented in a manner that makes them timely, relevant and accessible to practitioners throughout the province. In the last 5 years he has been principal investigator of 3 projects conducted in British Columbia (where he was before assuming his present position in OAHPP), and co-investigator of another 3.

Assistant Professor Ian Drummond

The overall objective of Dr Drummond's research is to simplify measurement of short-period exposure to chemicals, by using direct-reading instruments, so that it may be routinely and cheaply measured at the same time as a full-shift measurement is made. Improved statistical tools for interpretation of the results are also being developed. In the last 5 years he has been principal investigator of 1 project with funding of \$29,710.

Professor Joan Eakin.

Dr Eakin's research has focused on occupational health and safety including prevention and compensation systems and practices, especially related to small workplaces. Recent projects include a comparative study of the role of doctors in the compensation system in Ontario and Québec, a study of worker compensation systems and the consequences of work injury, a study of underreporting of occupational disease, and a study of front-line service work in a compensation board. During this time Dr Eakin developed and became the founding director of the Centre for Critical Qualitative Health Research, directed to the advancement of research methodology. In the last 5 years she has been principal investigator of 1 project with funding of \$52,691, co-PI of another 2 (funding \$191,000) and co-investigator of 1.

Associate Professor Shelly Harris. Scientist, Population Studies and Surveillance, Cancer Care Ontario.

Dr Harris's research focus is on developing methods to measure and predict occupational and environmental exposures for large-scale epidemiologic studies and developing methods to estimate human exposures to persistent bioaccumulating environmental contaminants (brominated flame retardants) using biological markers and questionnaire-based assessment. She is leading the development of environmental and occupational measures and carcinogen prioritization for the Ontario Health Study. In the last 5 years she has been principal investigator of 4 projects with total funding of \$423,693 and co-investigator of another 5.

Assistant Professor Sheilah Hogg-Johnson. Senior Scientist and Manager of Data and Information Systems, Institute for Work and Health.

Dr Hogg-Johnson's research has predominantly focused on the primary and secondary prevention of work disability, including interventions targeted at workplaces with poor health and safety records, and the measurement of outcomes and identifying prognostic factors for poor outcomes. In the last 5 years she has been principal investigator of 5 projects with total funding of \$445,729, and co-investigator of another 32.

Professor D Linn Holness. Head of the Division of Occupational and Environmental Health, DLSPH. Director, Centre for Research Expertise in Occupational Disease, St Michael's Hospital. Dr Holness's research has focused on occupational health, both specific diseases and also system issues. Her main area of disease focus is occupation induced skin and lung disease, the possible interactions between the skin and lung as routes of exposure and response and also prevention of occupational skin and lung disease. She is also involved in a number of projects examining broader occupational health and safety system issues such as the role of health care providers, joint health and safety committees and health and safety programs within

organizations. In the last 5 years she has been principal investigator of 9 projects with total funding of \$619,292, co-principal investigator of 3 and co-investigator of another 8.

Assistant Professor Ron House

Dr House's research has included the under-recognition and under-reporting of occupational disease and the utility of surveillance for the health effects due to various workplace exposures but is increasingly focused on Hand-Arm Vibration Syndrome (HAVS). His research on HAVS has dealt with the evaluation of diagnostic tests for the vascular and neurological components of HAVS, the evaluation of disability and quality of life in workers with HAVS and evaluation of educational tools for HAVS. In the last 5 years he has been principal investigator of 5 projects with total funding of \$402,476, and co-investigator of 4.

Assistant Professor Gary M Liss

Dr Liss's research has focused on occupational lung disease, primarily occupational/ work-related asthma but also beryllium and lung cancer. He was a member of an international panel that developed Evidence-based Guidelines for the Diagnosis and Management of work-related asthma. Additional investigations include work-related respiratory disease; skin and respiratory problems among professional cleaners; symptoms associated with mould exposure; and a review of claims allowed by the WSIB over a 5-year period for work-related asthma. He has also been involved in a study of impairment and disability among workers compensated for Vibration White Finger, and an exploration of whether there are cases of sarcoidosis in Ontario which represent unrecognized beryllium disease. In the last 5 years he has been principal investigator of 3 projects with funding of \$301,949, co-PI of 4 and co-investigator of another 7.

Professor Patrick Loisel. Senior Scientist, Division of Orthopedics, University Health Network  
Dr Loisel's research focuses on the development and evaluation of models and tools to prevent work disability situations for those with musculoskeletal problems. He is also involved in knowledge transfer for their application and use in the community. In the last 5 years he has been principal investigator of 7 projects with total funding of \$319,460, and co-investigator of 9.

Associate Professor James Scott

Dr Scott's research has primarily been concerned with the recognition, evaluation and control of microbial hazards in occupational and environmental settings. Much of his current research investigates methods of assessing microbial populations, and the roles of microbes in the etiology of chronic, immune-mediated diseases such as asthma, both through environmental exposures and exposures via the human microbiome. His research projects involve bacteria, fungi and viruses. In the last 5 years he has been principal investigator of 7 projects with total funding of \$3,393,370, and co-investigator of 10.

Associate Professor Frances Silverman. Gage Occupational and Environmental Health Unit.

Dr Silverman's research interests focus on cardio-respiratory effects of inhaled irritants and airborne environmental contaminants including gases (ozone) ambient particulate matter (coarse, fine and ultrafine particulate matter (PM)) using a controlled human ambient PM exposure facility. The current facility was established in collaboration with Harvard School of Public Health and is the only one of its kind in Canada. She is currently investigating the evidence for the association between air pollution and acute cardiorespiratory mortality and morbidity observed in epidemiological and toxicological studies. In the last 5 years she has been principal investigator of 10 projects with total funding of \$2,462,593 and co-investigator of another 18.

Assistant Professor Ivan Steenstra. Associate scientist, Institute for Work & Health. Dr Steenstra's research interests focus on return to work and musculoskeletal pain, with an emphasis on determining prognosis and tailoring interventions to achieve a fast and safe return

to work. In the last 5 years he has been principal investigator of 5 projects with funding of \$140,053, and co-investigator of 15.

Assistant Professor Emile Tompa. Scientist, Institute for Work and Health.

Dr. Tompa's research has focused on the consequences of disability compensation system design features and other labour market policies and programs for the health of individuals and populations. His research program also includes the study of labour market experiences and their health and human development consequences, with a particular focus on precarious employment. Dr. Tompa's third area of research is on workplace interventions directed at improving the health and well-being of workers, specifically the economic evaluation of such interventions. In the last 5 years he has been principal investigator of 9 projects with total funding of \$1,814,321, and co-investigator of another 12.

Other faculty working in this area:

Dr Donald Cole, Dr Loraine Marrett, Dr Heather Scott-Marshall, Dr Teresa To

## Public Health Policy

Four faculty identified Public Health Policy as their primary research theme, and 4 more as a theme of interest. In the last 5 years 19 projects have been approved with total funding of \$4,001,400, nearly all through institutions associated with the School.

Associate Professor Joanna Cohen. Director of Research and Training, Ontario Tobacco Research Unit.

Dr Cohen's research explores factors affecting the adoption and implementation of public health policies, and evaluates the beneficial effects and unintended consequences of such policies. She has been evaluating Ontario's ban on the display of tobacco products in stores using an innovating cohort design; evaluating a range of other tobacco control policies including the ban of "light" and "mild" descriptors on cigarette packages, changes in cigarette prices, and smoke-free places; exploring changes in smoking behaviours over time and the influences on these changes; describing gambling promotions at the point-of-sale; analyzing the body of tobacco research currently and over time, with implications regarding areas that are greatly underrepresented; building research capacity for public health policy and research through a six-year CIHR Strategic Training Initiative in Health Research grant. In the last 5 years she has been principal investigator of 2 projects with total funding of \$2,239,570 and co-investigator of another 7.

Assistant Professor Pamela Kaufman Scientist, Ontario Tobacco Research Unit

Dr. Kaufman's research addresses physical and social environment factors that affect the development and implementation of public health policies, and the beneficial effects and unintended consequences of such policies. Her most recent studies include understanding smoking behaviour and secondhand smoke exposure in outdoor public places. Dr. Kaufman primarily uses qualitative methods (focus groups and face-to-face interviews), direct observations and self employed photography, and has recently used aerosol science techniques to investigate levels of particulate matter (PM<sub>2.5</sub>) as a proxy for second hand smoke. In the last 5 years she has been principal investigator of 2 projects with total funding of \$230,081 and co-investigator of another 5.

Assistant Professor Jennifer Keelan

Dr Keelan has a range of research interests related to Canadian public policy processes, citizen engagement, and the role of scientific experts in public health policy making. Recent research projects explore the intricacies of federal/territorial and provincial intergovernmental relations and their impact on health policy nationwide, as well as public understanding of science and health policy & law: No-fault compensation schemes and Patient Safety. In the last

5 years she has been principal investigator of 2 projects with total funding of \$33,556 and co-investigator of another 5.

Associate Professor Robert Schwartz. Director of Evaluation and Monitoring, Ontario Tobacco Research Unit.

Dr Schwartz's research focuses on creating and synthesizing evidence to inform tobacco control policies (health insurance coverage, cigarette package design, Evidence Informed Tobacco Control Policy and Programming for Regional Public Health Authorities, anti-contraband measures). A second thrust of his work is in evaluation, surveillance, monitoring, and performance measurement. Some of his work also studies and seeks to improve the practice of evaluation and monitoring work (volume on evaluating complex strategies, knowledge synthesis on performance measurement, and volume on tobacco control evaluation). Several studies focus on accountability policies and mechanisms for public health. The large public health policy training grant also has a research development component under which he has initiated a group that is starting to study public health systems. In the last 5 years he has been principal investigator of 15 projects with total funding of \$1,531,749, co-PI with J Cohen of the large public health policy training grant and co-investigator of another 7 projects.

Other faculty working in this area:

Dr Elizabeth Badley, Dr Susan Bondy, Dr Ilene Hyman, Dr Jurgen Rehm.

## Women's Health

Four faculty identified Women's health as their primary research theme, and 5 more as a theme of interest. In the last 5 years 13 projects have been approved with total funding of \$1,789,030, \$1,369,230 routed through institutions associated with the school.

Associate Professor Gillian Einstein

Dr Einstein is developing a research program in Cognitive Neuroscience and Women's Health. One project involves qualitative, quantitative, and physiological research into the neurobiological consequences of Female Genital Circumcision/Mutilation/Cutting (FGC). Another is a neuropsychological assessment of the changes in memory and attention in women who carry the BRCA1/2 mutations, a third is a community-based study of healthy women to understand the correlation of mood with menstrual cycle and to explore sex differences in threshold to touch and how threshold to touch might change in women depending on the phase of their menstrual cycle. In the last 4 years (since appointment to the DLSPH) she has been principal investigator of 5 projects with total funding of \$119,800.

Professor Lorraine Ferris. Associate Vice Provost (Relations with Health Care Institutions)

Dr Ferris studies abortion services comprising a statistical/epidemiological profile on access and use of abortion services as well as primary data collection from hospitals about service provision. She also evaluates research evidence on women's health in Ontario and integrity in clinical research in Canada. In the last 5 years she has been principal investigator of 1 project with funding of \$300,000 and co-investigator of 2.

Associate Professor Janice Du Mont Research Scientist, Womens College Research Institute.

Dr Du Mont conducts research in the area of violence to women, specifically a pilot project on whole body experiences of female genital cutting, evaluating hospital-based sexual assault and domestic violence services from the perspectives of clients and responding to victims/survivors of drug facilitated sexual assault: protocol development and evaluation on sexual assault and domestic violence treatment centres. In the last 5 years she has been principal investigator of 1 project with funding of \$150,830 and co-investigator of 3.

Assistant Professor Robin Mason Research Scientist, Centre for Research in Women's Health.

Dr Mason conducts research on the topic of violence against women, including intimate partner violence, the effects of past trauma on women, the development and evaluation of curricula for health care providers, and the intersection of intimate partner violence, substance use and mental health problems. In the last 5 years she has been principal investigator of 6 projects with total funding of \$1,218,400 and co-investigator of 2.

Other faculty working in this area:

Dr Farah Ahmad, Dr Elizabeth Badley, Dr Anna Chiarelli, Dr Ilene Hyman, Dr Steven Narod