

Chronic Disease

Assignment Description

The Built Environment Program is currently engaged in a number of projects aimed at improving the built environment for the purpose of increasing physical activity and improving nutrition to reduce the burden of obesity and related chronic diseases. To this end, the program is currently collaborating with other City agencies such as the Departments of Design and Construction, Transportation, and City Planning as well as other public and private sector organizations on several interventions. These interventions include the publication, dissemination and implementation of Active Design Guidelines for public and private sector design professionals charged with the design and construction of city neighborhoods, streets and buildings; a citywide stair promotion initiative to increase stair use; and policy, regulatory and legislative efforts, including health and construction (building and zoning) code change proposals, that would mandate and incentivize built environment improvements.

Examples of present code change efforts include those to increase bicycle parking and stair access, visibility and prompting; and the creation of zoning code incentives for best practice stair design and for grocery store development in underserved neighborhoods. Activities aimed at evaluation of Built Environment program efforts are ongoing. Data on behaviors associated with built environment changes have been collected on surveys conducted by DOHMH such as the Community Health Survey and the Youth Risk Behavior Survey. However, an environmental surveillance system for the built environment as it relates to physical activity, nutrition and obesity has not been developed and is needed. Such a system is needed to identify geographic disparities in the built environment in NYC as well as to track changes in the built environment over time, particularly given the voluntary and policy intervention initiatives occurring here.

The Built Environment program has worked with Columbia University's Built Environment and Health Group on preliminary recommendations for potential built environment indicators that reflect the current scientific knowledge regarding evidence-based environmental factors and the data available from NYC government agencies, including potential indicators for walkability and access to resources for healthy eating and physical activity. With the recent publication of recommended Common Community Measures for Obesity Prevention by the Centers for Disease Control and Prevention, more work is now needed to develop the appropriate indicators for New York City based on data availability and strength of associations of these factors and outcomes in the New York City context, and to assemble the indicators into a surveillance system. Developing specific surveillance system indicators, testing them, and compiling them as components of a larger built environment surveillance system, as well as evaluating these components will be core activities for the Fellow.

In addition to the DOHMH data sets listed above, the Fellow will have the opportunity to work with DOHMH staff, academic partners and staff from other City agencies to identify and utilize other available data sets, to develop and test indicators, to recommend new data collection as needed, and to assist in developing and testing data collection methods. In Year 2, the Fellow will also be involved in evaluating components of the surveillance system that are developed in Year 1 of the placement. In addition, the Fellow will have opportunities to develop and improve knowledge and skills in research methods and applied public health program evaluation, in use of statistical software programs, in epidemiologic data analyses, and in data interpretation and presentation. The Fellow will be involved in the write-up and presentation of results in various formats including reports, manuscripts for peer-reviewed publications, professional oral presentations, and poster presentations for conferences. There will also be opportunities for experience in the writing of grant proposals.

Day-to-Day Activities

The Fellow's anticipated day-to-day activities will include participation in Built Environment staff and stakeholder meetings and working with Built Environment staff on evaluation and surveillance projects. One of the Fellow's anticipated dedicated projects will be to assist with the development and testing of indicators and methods needed for one or more components of an environmental surveillance system that can descriptively document geographic disparities and monitor change over time in the built environment factors related to physical activity, health eating and obesity.

Potential Projects

This placement presents the unique opportunity to assist in the development of a surveillance system and to engage in the evaluation of innovative policy changes to improve physical activity and healthy eating. Given that the epidemics of obesity and type 2 diabetes are increasing rapidly here in NYC as well as in the rest of the U.S., involvement in such surveillance system development, testing, and evaluation will not only contribute tremendously to advancing these needed epidemiologic efforts, but will provide the Fellow with the opportunity to be positioned to take on anticipated and needed future epidemiologic work both here and in other jurisdictions. Some specific activities for the placement include, but are not limited to:

- Identifying and testing potential built environment indicators related to physical activity and healthy nutrition;
- Identifying and evaluating potential data sets for built environment indicators; • Working with available DOHMH data sets;
- Working with academic partners and other government agencies on available data sets;
- Conducting analyses as needed for associations between potential indicators and health outcomes in NYC, as part of indicator development and testing;
- Proposing, developing and testing new data collection methods for additional indicators for which secondary data are not available;
- Being involved with field work for data collection as appropriate;
- Designing sampling methods as needed;
- Evaluating components of the built environment surveillance system that are developed;
- Assisting with other built environment evaluation projects including evaluation design, data collection, analyses, interpretation and presentation;
- Assisting in development of framework for epidemiologic evaluation and in the evaluation of built environment policy changes;
- Assisting with grant proposal writing;
- Assisting with writing up manuscripts for peer review and other publications;
- Preparing for and undertaking oral presentations and poster presentations;
- Involvement where appropriate in other public health communication opportunities such as press releases and interviews;
- Opportunities for involvement in emergency preparedness activities at DOHMH.

Preparedness Role

The Fellow will have the opportunity to work with DOHMH's Bureau of Emergency Management on ongoing and/or new projects as they arise, including but not limited to projects in surveillance, planning, interventions and/or evaluation.

Assignment Location:

New York, NY

Primary Mentor:

Karen Lee, MD, MHSc, FRCPC
Director, Built Environment Program; Deputy Director, Bureau
of Chronic Disease Prevention and Control
New York City Department of Health and Mental Hygiene

Secondary Mentor:

Sean Fischer, MA, PhD Candidate
Deputy Director, Built Environment Program
New York City Department of Health and Mental Hygiene