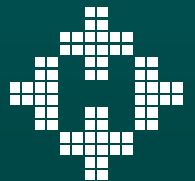# Place and Health in Winnipeg

Leslie L. Roos, Shirley Forsyth, Dan Chateau, Jen Bodnarchuk, Ruth-Ann Soodeen & Lisa Lix

Spatialisation and Health: Characterising Place
A problem-solving workshop

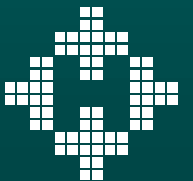**Banff, AB • Nov. 29-Dec. 1, 2002**

MANITOBA CENTRE FOR HEALTH POLICY

Introduction

Study 1

Focuses on Winnipeg, the largest Manitoba urban centre. Indicators were developed using administrative, census, health (Manitoba), and community-based data (housing, crime, social & recreation programs).
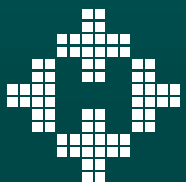
Study 1: Questions

1. Does level of aggregation matter in analyzing the effects of place on health status?

   A. <u>Content</u> - Program overlap if areas are too small; moving from 72 to 23 areas → larger catchment areas

   B. <u>Statistics</u> - When is "n" too low, given the number of variables?

Defining the Unit of Analysis

Three ways to define Winnipeg areas:

♦ 72 Community Centre Areas (CCAs)

– defined by General Winnipeg Council of Community Centres; programming purposes

• 23 Neighbourhood Clusters (NCs)

– defined by Winnipeg Regional Health Authority (WRHA); research purposes

• 12 Community Areas (CAs)

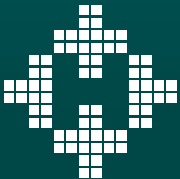– defined by WRHA; administrative purposes

Study 1: Questions

2. Do social programs affect health status in the Canadian context?

3. Are different indicators of health status associated with place?

Data Sources

1. Socioeconomic Factor Index (SEFI; 1996)
   - <u>Source</u>: Census data

2. Housing, crime, social programs, green space (1997-2000)
   - <u>Source</u>: City of Winnipeg

3. Health indicators (2000)
   - <u>Source</u>: MCHP Population Health Data Repository

Independent Variables

1. Index Based on Housing Measures

- Includes housing characteristics and residential characteristics of neighborhood

2. Recreation Programs (rate/1000 age 0-65)

- Physical activity, creative arts, events, learning

3. Social Programs (rate/1000 age 0-65)

- Counseling, family/home needs, mental health, special needs

4. Green Spaces

- Average distance (km) from each postal code to recreational space

Dependent Variables
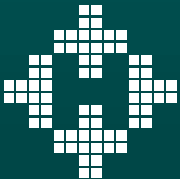
Health Status Indicators

1. **Premature Mortality Rate (PMR)**
2. **Ambulatory Diagnostic Group**
   - <u>ADG25</u> - substance abuse diagnoses and many psychiatric diagnoses
   - <u>ADG9</u> - heart-related diagnoses
3. **Other Health Indicators (Hospitalizations)**
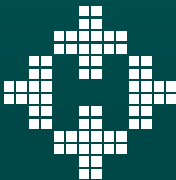   - Childhood & Adult injury, Teenage pregnancy, Osteoporosis

Results: Factor Analyses

For 72 CCAs, analyses showed:

Factor 1

- SEFI, housing, crime - very strong loadings (.84-.91)

Health outcomes:

Adult injury	.88	Childhood injury	.64
PMR	.87	ADG9 (mental health)	.61
Teenage pregnancy	.85	Osteoporosis	-.07
ADG25 (heart)	.78		

Results: Factor Analyses

Factor 2

- Number of recreational & social programs load highly on this factor (.80 - .88)

- Negative loading of distance to green space (-.38 to -.46)

- No marked loading with health indicators except osteoporosis (.43)
  - May reflect active concern for health or creation of new community centres with associated green space

Final Thoughts

- The findings emphasize the importance of socioeconomic factors and housing as correlates/determinants of crime and health status.

- The lack of relationship between social & recreational programs on the one hand, and health status on the other is discouraging.