Healthy Commuting: Archiving Longitudinal Journey-to-Work and Health Data from a Localized Population

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Presentation for Data Day 2017
May 11, 2017
Presentation Overview

• Background and objectives
• Study methods and datasets
• Procedures, challenges, & benefits of archiving data
Background and Study Objectives
Active Commuting and Health

• Daily commute for daily PA, but most Canadians live too far to actively commute
  – Regular transit riders accrue more daily PA

• Ongoing barriers to transit ridership in midsized cities
  – Little to no traffic congestion
  – Parking at/near workplace is convenient
  – Time and monetary costs of driving are low
Gaps and Study Objectives

• Knowledge Gaps
  – Most studies are cross-sectional, focused on large cities and higher order transit

• Research Question
  – Can introduction of express transit in the low-density mid-sized city of Kingston, Ontario increase transit use and promote health?

• Study Objectives
  – Track changes in commute patterns of Queen’s employees
  – Examine relationship between mode, health, and PA levels
Study Methods and Datasets
Survey Administration Methods

• Online survey of all non-student Queen’s employees
  – Over 3000 each year

• Administered in October 2013, 2014, 2015, 2016

• Multiple-contact approach
  – Initial invitation + 2 follow-ups emails to non-respondents

• Ethics approval sought and granted in September 2013
  – Renewed each year with amendments
Survey Topics

• Commute patterns to Queen’s
  – Trip details – distance, time, stops, satisfaction, mode
  – Vehicle access, parking permit, transit pass

• Use of, and attitudes towards, KT
  – Bus stop proximity, use of KT for commute
  – Barriers to, and facilitators of, KT use

• Health and physical activity status
  – Self-reported health & mental health, stress
  – Activity limitations, physical activity levels

• Demographics
  – Gender, age, household composition, household income
  – Postal code
Cross-Sectional Datasets

• 2013: RR = 1356/3151 = 43%
• 2014: RR = 1123/3392 = 33%
• 2015: RR = 1497/3466 = 43%
• 2016: RR = 1820/3792 = 48%
Longitudinal Datasets

• 2013-2014 → N=656 repeat responders

• 2013-2014-2015 → N=443

• 2013-2014-2015-2016 → N=320

• 2013-2016 → N=863

• Other permutations
Archiving: Process, Challenges, & Benefits
Process

• Initially approached by Jeff Moon in 2013
  – Reluctant to participate
  – Novel practice
  – Worry about intellectual property

• Cleaned and stripped dataset of identifiers

• Completed Data Deposit Form and submitted data for archiving in March 2014
Challenges

• Plans to archive and share data can make (potential) study participants suspicious

• Level of data cleaning required for public access

• Pressure of the embargo date
Benefits

• Ensuring my data is protected and available long-term

• Getting accustomed, early on, to new data management procedures that would become mandatory

• Making the data available to others presents potential opportunities for new lines of inquiry, research collaboration, publications

• Data itself as intellectual property, not just manuscripts
Acknowledgements & Thanks

• Sara Montgomery, Kim Akerblom, Roger Healey, Office of Institutional Research and Planning

• Senate Advisory Research Committee

• Jeff Moon, Alexandra Cooper, Francine Berish