

Examining the wellbeing impacts of urban regeneration using administrative data

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BREAKING IT DOWN:

Examining the wellbeing impacts 02
of urban regeneration 01
using administrative data 03

This will ensure current and future urban regeneration developments in New Zealand are guided by empirical evidence.



What is urban regeneration?

SECTION ONE



NEIGHBOURHOOD IMPROVEMENTS



REVITALISING TOWN CENTRES



INCREASING THE HOUSING SUPPLY



IMPROVING EXISTING HOUSING STOCK



WALKING AND CYCLING FACILITIES



PUBLIC TRANSPORT AND ROAD INFRASTRUCTURE



PUBLIC FACILITIES AND GREEN SPACES



COMMUNITY INTERVENTIONS AND HUBS



COMMUNITY INVOLVEMENT

URBAN REGENERATION FOCUS

Housing Intensification





Kāinga Ora
Homes and Communities

Wellbeing through places and communities

- Government agency responsible for social housing and urban development
- Focused on increasing public and private housing through intensification
- Main policy tool used by government to drive its future housing initiatives
- Redevelop own land, purchase new land, or acquire new houses from developers
- Housing supply made up of:
 - State/public
 - KiwiBuild/affordable
 - Community groups
 - Emergency/transitional





SECTION TWO

So why am I interested in urban regeneration?

The physical environment in which people live can affect their health and wellbeing

By regenerating urban areas that people live in, we have the potential to improve health and societal outcomes



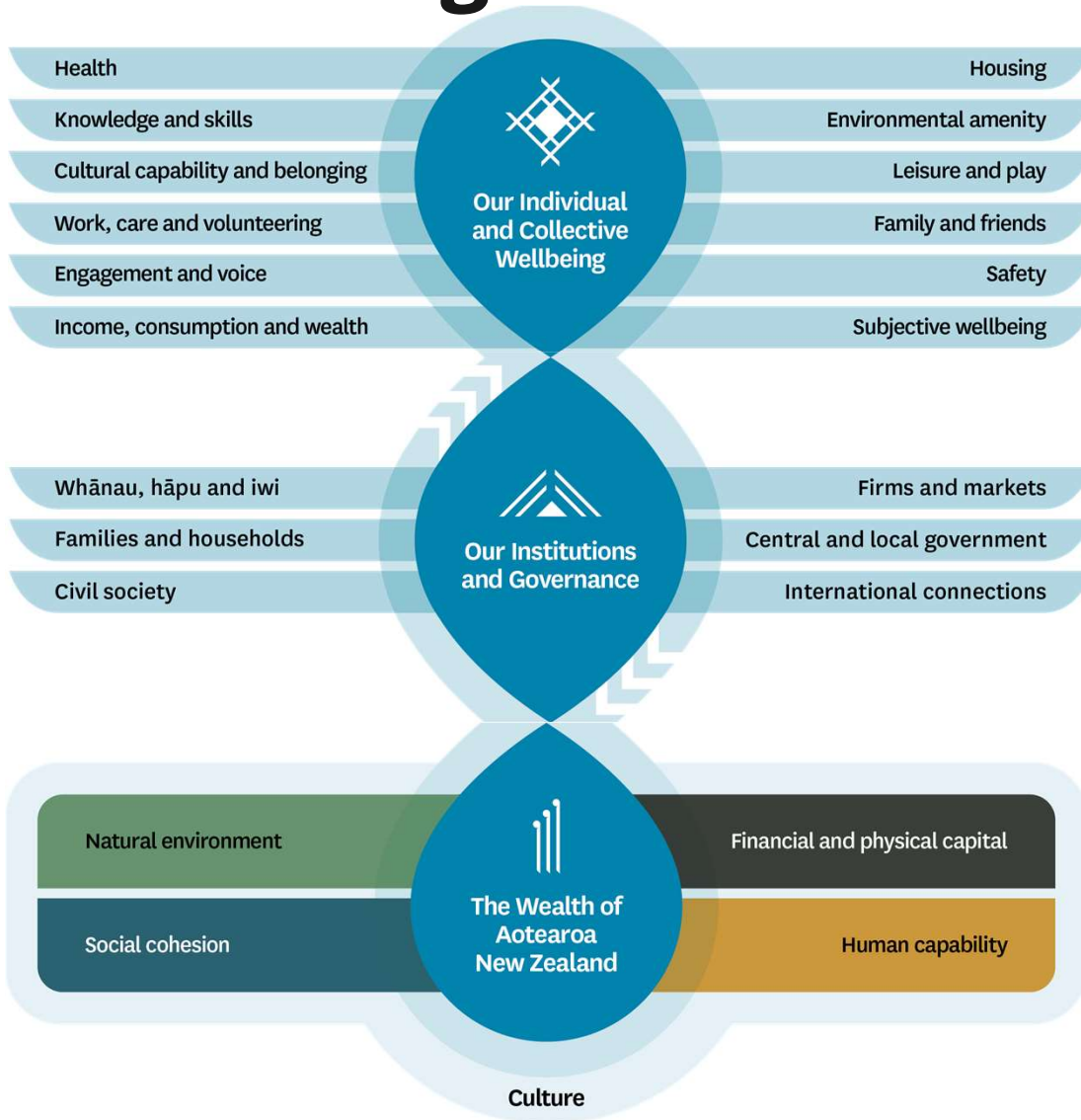
Christchurch



Glen Innes



The Living Standards Framework (LSF)



Individual and Collective Wellbeing

Point in time measure of what is important to New Zealanders

Institutions and Governance

How institutions and governance facilitate our wellbeing

Wealth of Aotearoa New Zealand

New Zealand's wealth measured by four capitals

Domains

LSF Wellbeing Indicators

Health

Healthy life expectancy

Number of years that a person under 1 can expect to live in good health

Health status

% of adults reporting good health

Mental health

% of adults reporting high levels of psychological distress

Work, care and volunteering

Employment rate

% of adults who are employed

Youth NEET rate

% of young people not in education, employment or training

Hours worked

Average weekly hours worked

Safety

Domestic violence

% of adults who were victims of family violence

Feeling safe

% of adults who feel safe when walking alone in their neighbourhood after dark

Workplace accident rate

Number of work-related injuries per 1,000 FTE

LIVING STANDARDS FRAMEWORK DATA

Only as recent as the latest survey available and only as often as the timing of survey releases

Covers a small proportion of the population

Can only be broken down into broad regional levels

DATA REQUIRED FOR MY ANALYSIS

Regularly and frequently recorded such as monthly or quarterly observations

Covers a larger sample size

Geography can be broken down into smaller units

The Index of Multiple Deprivation (IMD)

The New Zealand Index of Multiple Deprivation 2013

Employment	Income	Crime	Housing	Health	Education	Access
<ul style="list-style-type: none"> Number of working age people receiving the Unemployment Benefit Number of working age people receiving the Sickness Benefit 	<ul style="list-style-type: none"> Weekly Working For Families payments (\$ per 1000 population) Weekly payments (\$ per 1000 population) in the form of income related benefits 	Victimisation rates for: <ul style="list-style-type: none"> Homicide and Related Offences Assault Sexual Assault Abduction and Kidnapping Robbery, Extortion and Related Offences Unlawful Entry With Intent/Burglary, Break and Enter Theft and Related Offences 	<ul style="list-style-type: none"> Number of persons in households which are rented Number of persons in households which are overcrowded 	<ul style="list-style-type: none"> Standardised Mortality Ratio Hospitalisations related to selected infectious diseases Hospitalisations related to selected respiratory diseases Emergency admissions to hospital People registered as having selected cancers 	<ul style="list-style-type: none"> School leavers <17 years old School leavers Without NCEA L2 School leavers not enrolling into tertiary studies Working age people without qualifications Youth not in Education Employment or Training 	Distance to 3 nearest: <ul style="list-style-type: none"> GPs or A&Ms Supermarkets Service stations Primary or intermediate schools Early Childhood Education Centres

For example: health - hospitalisations related to respiratory diseases

MEASURING THE EFFECTS

Wellbeing impacts of urban regeneration



LITERATURE REVIEW

What are the impacts of urban regeneration on

Chapter 1



Education



Labour Markets

Chapter 2



Physical Health



Mental Health

Chapter 3



Crime



Safety

Education and labour market outcomes

Children living in higher quality neighbourhoods more likely to complete tertiary education later in life (Brummet & Reed, 2019)

Education improvements in regenerated areas - however, similar improvements in the national average (Thomson, Atkinson, Petticrew, & Kearns, 2006)

However, other studies showed no changes, weak or even negative associations (Batty et al., 2010)

Similar mixed findings when measuring employment effects (Batty et al., 2010; Brummet & Reed, 2019; Thomson, Atkinson, Petticrew, & Kearns, 2006)

Physical and mental health outcomes

More likely to walk, cycle and take public transport in regenerated areas (Bull, Hooper, Foster, & Giles-Corti, 2015; Giles-Corti, Ryan, & Foster, 2012)

Residents had better mental wellbeing in neighbourhoods with improved aesthetics (Bond et al., 2012; Kullberg, Timpka, Svensson, Karlsson, & Lindqvist, 2010)

Poor health due to reduced access to green spaces and longer sitting times (Berglund, Westerling, & Lytsy, 2017)

Housing improvements such as heating improved respiratory and mental health (Egan, Lawson, Kearns, Conway, & Neary, 2015)

Some studies where improved health was reported, not significantly different to control groups (Kearns, Ghosh, Mason, & Egan, 2020; Mohan, Longo, & Kee, 2017)

Crime and safety outcomes

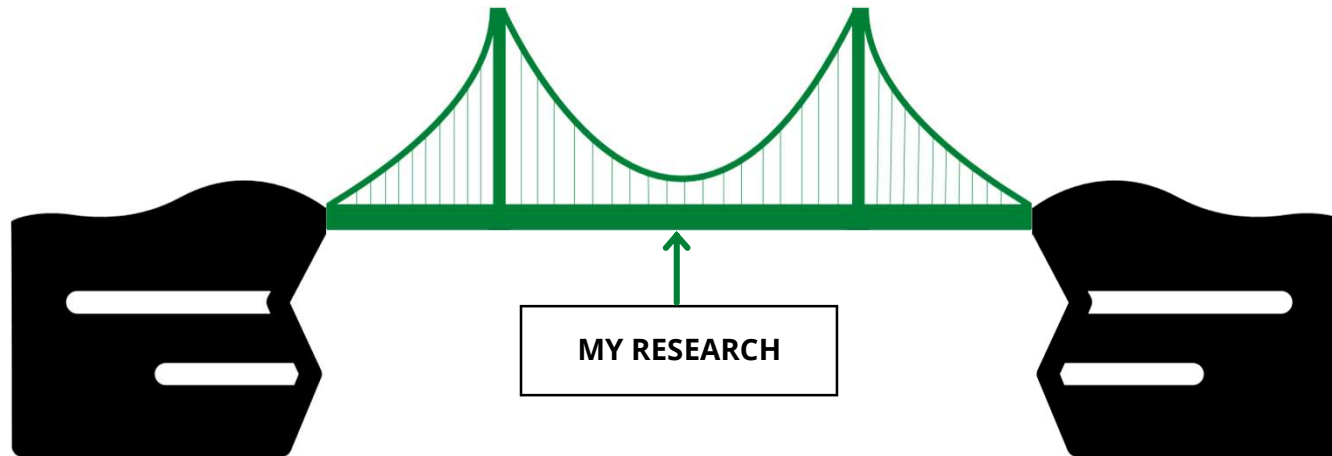
Neighbourhoods with improved lighting and aesthetics felt safer (Bull, Hooper, Foster, & Giles-Corti, 2015)

Dwelling densities not associated with feelings of safety (Badland et al., 2017)

Lower crime rates in regenerated neighbourhoods (Batty et al., 2010)

Bridging the knowledge gap

- No strong consensus for the direction of urban regeneration impacts
- Studies are survey-based, interviews or case studies
- Covers only a small sample of the population over short periods
- Limited causal evidence between urban regeneration and wellbeing



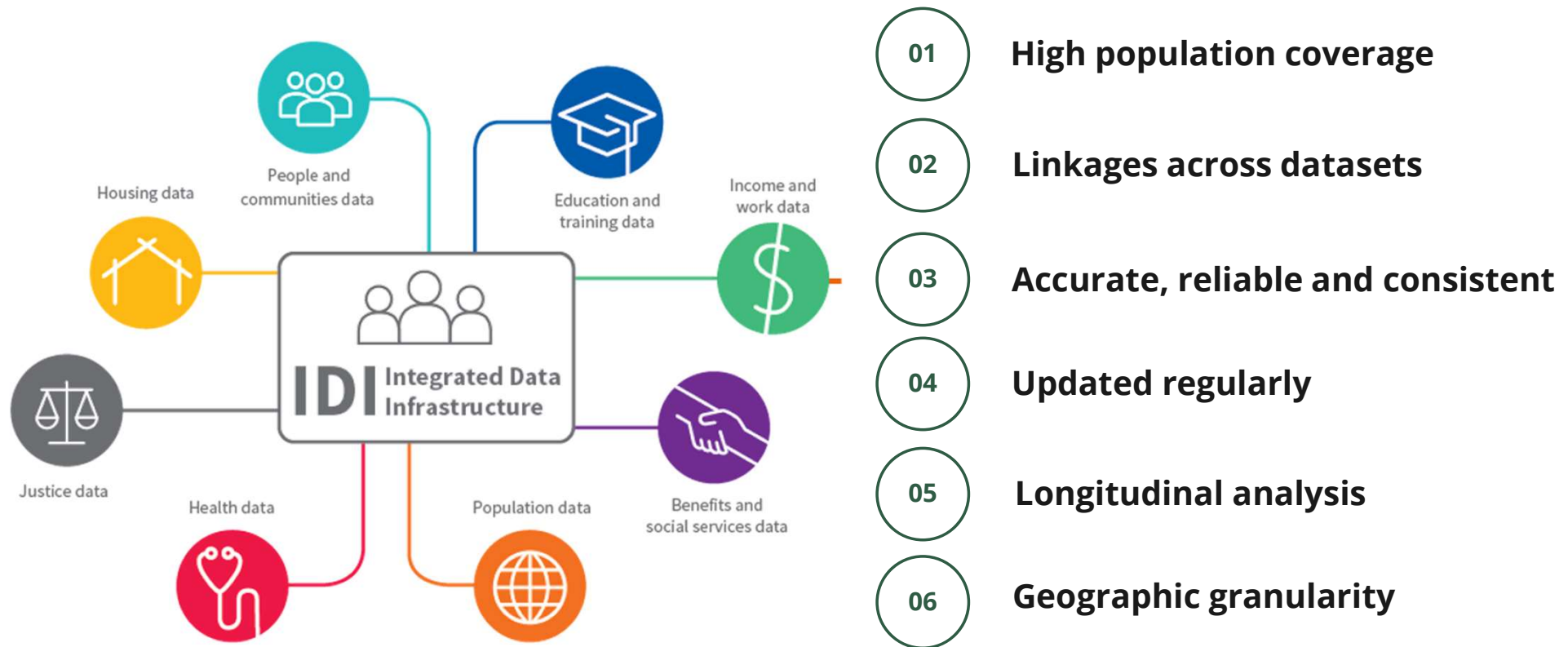
SECTION THREE

Using administrative data to measure the wellbeing impacts of urban regeneration



The Integrated Data Infrastructure

Administrative data collected by government agencies while conducting its business or legislative duties



IDI datasets

Education and labour markets

Ministry of Education

- Secondary schools
- Tertiary education
- Industry training and education

Inland Revenue

Tax revenue

Ministry of Social Development

Benefit dynamics

Physical and mental health

Department of Internal Affairs

Life events data

Ministry of Health

- National Non-Admitted Patient Collection
 - National Minimum Dataset
 - Programme for the Integration of Mental Health data
 - Pharmaceutical data
 - Mortality collection
-

Crime and safety

New Zealand Police

Recorded crimes victim data

Ministry of Justice

Court charges

Accident Compensation Corporation

Claims data

Demographic data

Address Notification

Geographic information

Census 2013/2018

Population descriptives

Department of Internal Affairs

Marriage, civil union and deceased status

Personal details

Demographic information

Ministry of Business Innovation and Employment

Border movements

Measuring urban regeneration

Housing intensification data from Kāinga Ora

- Covers time period: 2017 - 2020
- Geographic unit of analysis at suburb level
- Project beginning and completion date
- Urban regeneration phases such as planning, under construction or delivered
- Type of supply, amount and typology of housing built



Examining the wellbeing impacts of urban regeneration using administrative data

**Living Standards Framework
+
Index of Multiple
Deprivation**



**IDI administrative data
+
Kāinga Ora urban
regeneration data**



Education



Labour Markets



Physical Health



Mental Health



Crime



Safety

**Wellbeing
impacts**

ESTIMATING WELLBEING IMPACTS OF URBAN REGENERATION

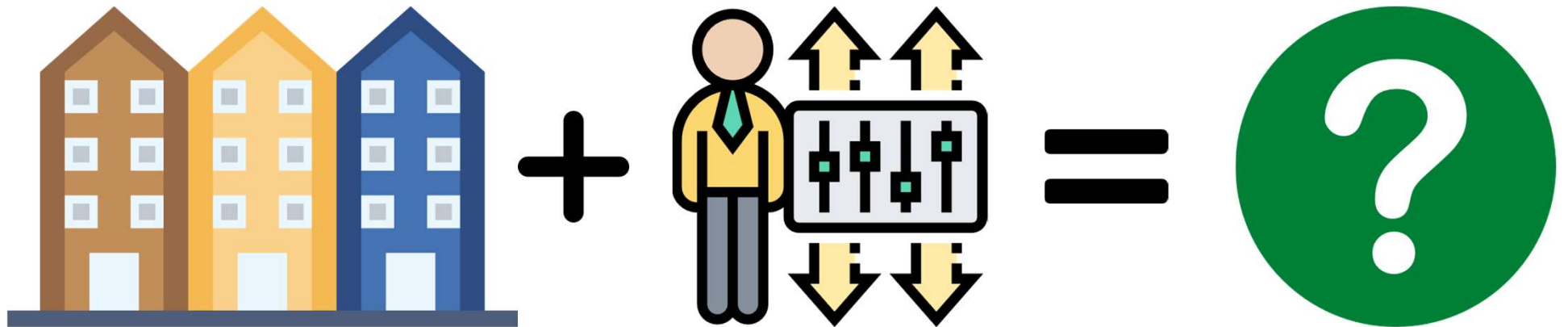
Difference-in-difference model (DiD)

$$Y_{st} = \mu_s + \lambda_t + \beta \cdot Regen_{st} + \delta \cdot X_{st} + v_{st}$$

- Y_{st} is the wellbeing indicator for suburb s at time t
- μ_s measures suburb-specific fixed effects
- λ_t measures time-specific fixed effects
- $Regen_{st}$ incorporates housing intensification characteristics
- X_{st} incorporates suburb and time-specific covariates

where t = months between January 2015 - December 2021 inclusive

Forming the evidence base



Thank you