Prevalence of longstanding health conditions among three-year-old children

Steve Barron, Kevin Balanda, Lorraine Fahy

Institute of Public Health in Ireland (IPH)

www.growingup.ie

ESRI

An Roinn Leanaí
agus Gnóthaí Óige
Department of
Children and Youth Affairs

TRINITY
COLLEGE
DUBLIN

Outline

Context

Aims

Method

Findings

Challenges
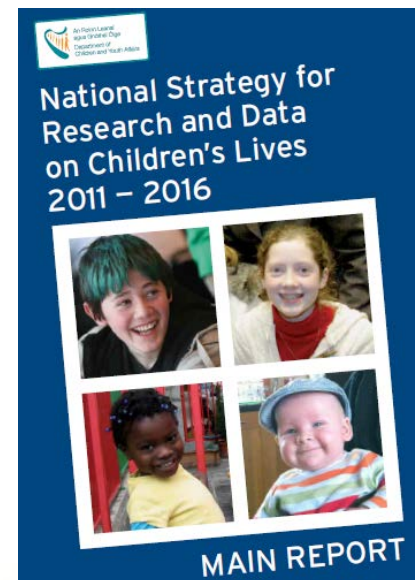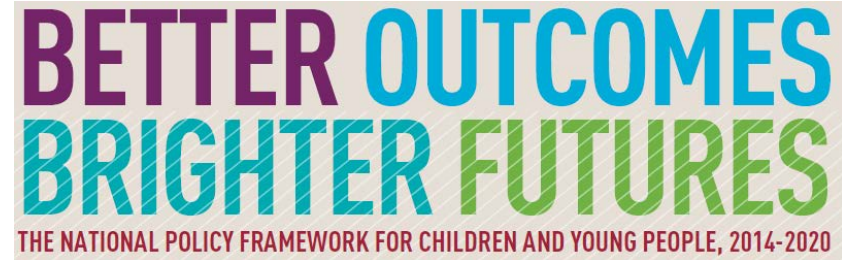
Implications

Context

o Longstanding health conditions

o Importance of early years

o Current policy

o How the study contributes

Aims of the study

o Estimate national prevalence among children of longstanding conditions that are relatively common and relatively serious

o Describe how national prevalence varies with important characteristics

o Describe how prevalence varies across the 29 administrative counties and five cities

Method

o Growing Up in Ireland (Infant Cohort Wave Two): Three-year-olds in 2011

o Carer-reports of:

    o A "longstanding illness, condition or disability"

    o Diagnosed asthma/asthma symptoms

    o Diagnosed eczema/skin allergy

    o Sight problems that required correction

    o Hearing problems that required correction

Method

o Estimate national prevalence: per cent estimate from GUI survey applied to Census 2011

o Describe how national prevalence varies with important characteristics:

> o Identified an initial set of characteristics in GUI
>
> o Developed a national statistical model (stepwise variable selection procedure)
>
> o Ensured that the model satisfied statistical criteria

Method

o Describe how prevalence varies across the 29 administrative counties and five cities

o "Synthetic estimates" that combine

   1. National data on prevalence, by characteristics related to prevalence (from a statistical model)

   2. County/city data on the number of children with these characteristics (from population data)

   "Expected prevalence" based on the characteristics of the area

o Based on the national statistical model – remove characteristics if there were no data for counties / cities

Findings

"Longstanding illness, condition or disability"

"Does 'child' have any longstanding illness, condition or disability?
By longstanding I mean anything that has troubled him/her over a period of time or that is likely to affect him/her over a period of time?"

15.8% (about 11,000)

Boys 50% more likely

Primary carer is ill 120% more likely

Lowest social class 50% more likely

"Asthma," diagnosed by a medical professional <u>or</u> asthma symptoms (4+ "separate episodes/bouts of wheezing with whistling…in the past 12 months")

9.5% (about 6,600)

5.7% diagnosed asthma (about 4,000)

3.8% wheezing but no diagnosis of asthma (about 2,600)

Primary carer is ill   Diagnosed asthma, among children with no allergies

Allergies   (particularly if primary carer is well)

One parent households   About 100% more likely

Diagnosed eczema / skin allergy

"Eczema or any kind of skin allergy," diagnosed by a medical professional

4.0% (about 2,800)

Boys 50% more likely

Primary carer is ill 110% more likely among children with no non-skin allergies

Non-skin allergies (particularly if primary carer is well)

"Does 'child' currently have, or at any time in the past had, any sort of sight problem requiring correction? Correction includes being prescribed glasses"

5.9% (about 4,100)

Lowest social class 70% more likely (than highest social class)

Low birthweight 70% more likely

Smoking during pregnancy 50% more likely

Hearing problem that required correction

"Does 'child' currently have, or at any time in the past had, any sort of hearing problem requiring correction?

3.9% (about 2,700)

Boys (particularly if born with low birthweight)

Primary carer is ill 90% more likely

Private health insurance 70% more likely
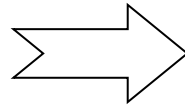
Low birthweight 190% more likely among boys

Risks accumulate…

Growing Up in Ireland — National Longitudinal Study of Children

High prevalence among children with several risk factors

Prevalence of "longstanding illness, condition or disability"

11.2%

Girls
Primary carer is well
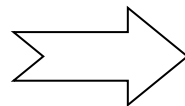Highest household social class

⇒

39.7%

Boys
Primary carer is ill
Lowest household social class

Prevalence of asthma / asthma symptoms

6.4%

Do not have allergy
Primary carer is well
Two parent households

⇒

53.9%

Have an allergy
Primary carer is ill
One parent households

Subnational prevalence %

"Longstanding illness, condition or disability"

Area differences reflect differences in the distribution of characteristics:

- – Child's sex
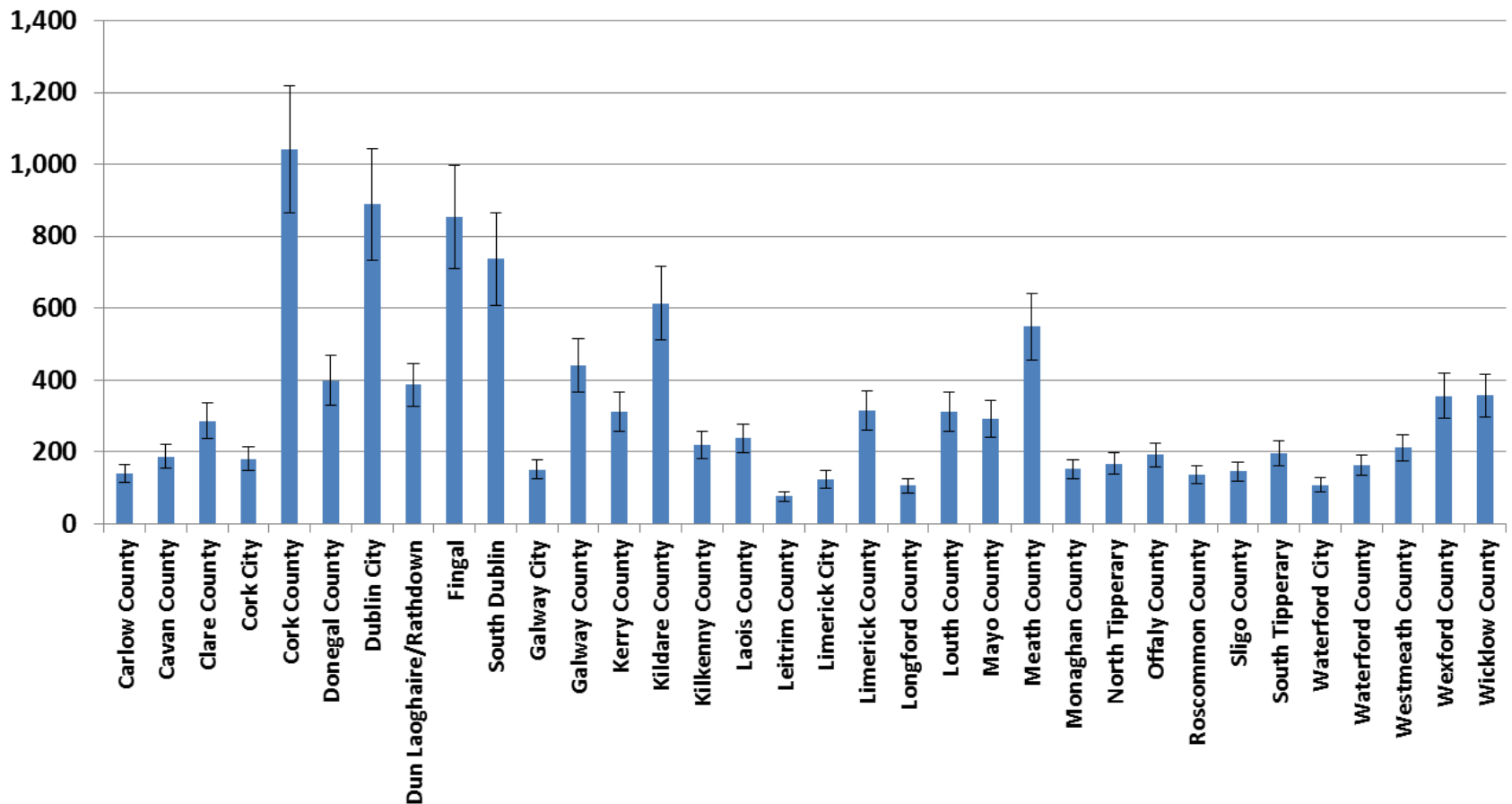- – Primary carer health status
- – Household social class

Differences in <u>prevalence %</u> not statistically significant

Legend:
- 17.1 - 17.4
- 16.8 - 17.1
- 16.5 - 16.8
- 16.2 - 16.5
- 15.9 - 16.2
- 15.6 - 15.9
- 15.3 - 15.6
- 15.0 - 15.3
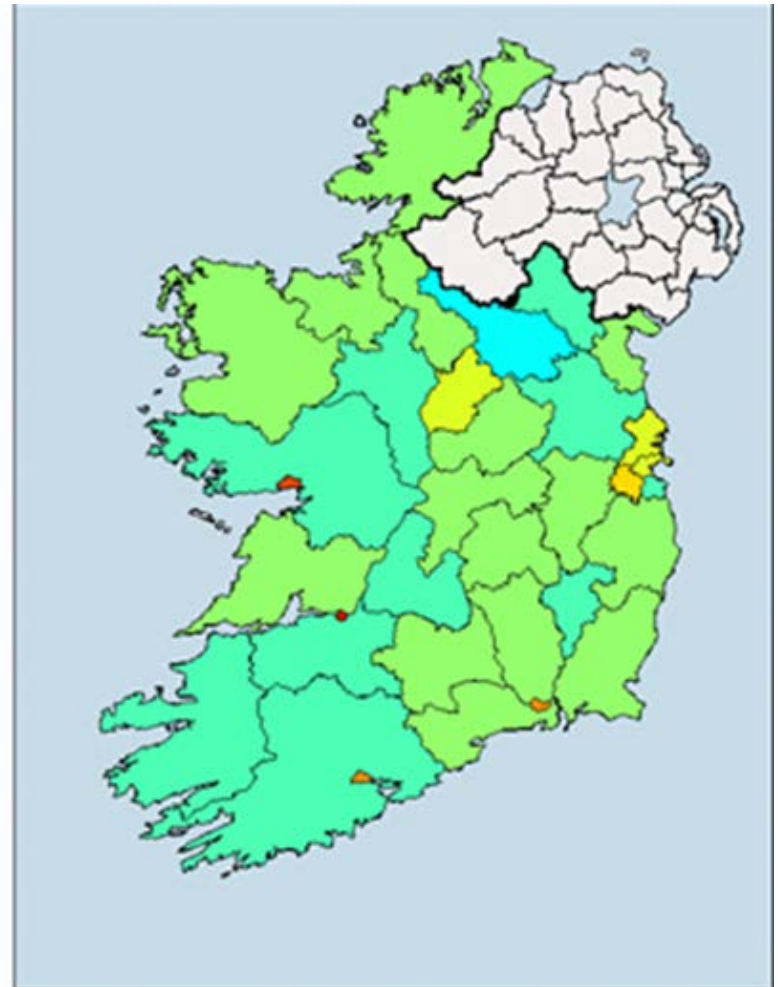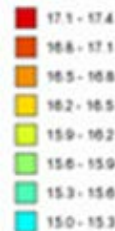
A "long standing illness, condition or disability": Estimated number of cases among three-year-olds, 2011

Summary of findings

o Longstanding conditions are common among three-year-olds

o Inequalities in health are evident at this early age

o The conditions are more common among

   ➢ Boys

   ➢ Children whose carer is ill

   ➢ Children from poorer socio-economic circumstances

   ➢ Children with poorer birth circumstances

o Risks accumulate; high prevalence among some groups

Challenges

o Representativeness of GUI

o Carer/parent reports

o Statistical modelling and sample size

o Subnational data

Implications for policy

Identify key risk factors and groups with poorer health
(*Healthy Ireland* Actions 2.7, 4.8; *Better Outcomes, Brighter Futures* Goals 12, 26)

Reduce risk factors
(*Healthy Ireland* Action 1.4)

Supporting parents and families
(*Healthy Ireland* Action 3.4; *Better Outcomes, Brighter Futures* Goals 1, 2, 3, 4)

Local government/community and local health and wellbeing
(*Healthy Ireland* Actions 1.9, 2.2, 2.3, 5.3, 6.5; *Better Outcomes, Brighter Futures* Goals 2, 47, 51, 52, 62, 68)

Use of existing data sources
    (*Healthy Ireland* Actions 6.8; *National Strategy for Research and Data on Children's Lives* Action area 2)

Health status and prevalence rates
    (*Healthy Ireland* Actions 6.6, 6.7; *Better Outcomes, Brighter Futures* Goals 56, 57; *National Strategy for Research and Data on Children's Lives* Action C13)

Better understanding of factors affecting child health
    (*National Strategy for Research and Data on Children's Lives* Action B1)

Local data to address local issues
    (*Healthy Ireland* Actions 2.3, 5.3, 6.5; *Better Outcomes, Brighter Futures* Goals 62, 68)
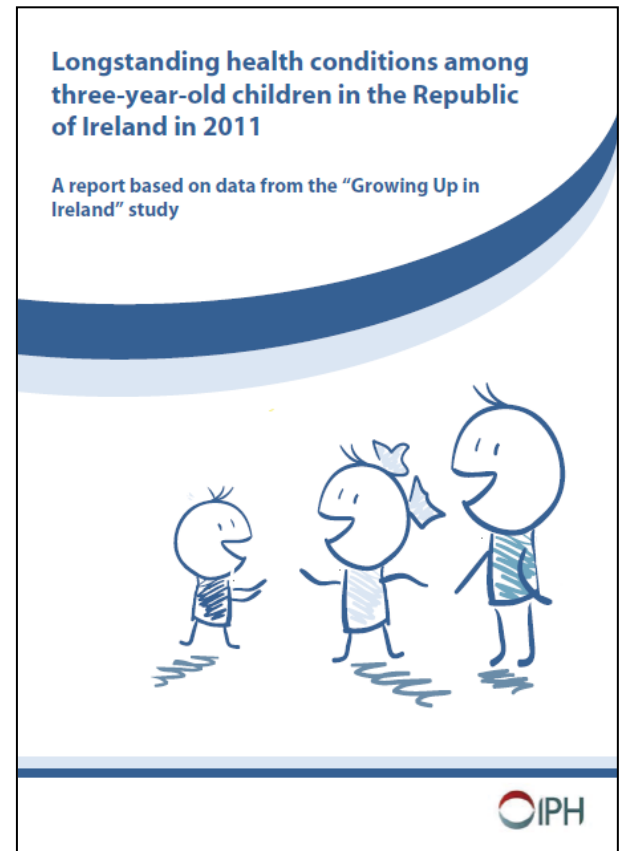
Conclusions

o   Longstanding health conditions are common among three-year-old children

o   Inequalities in health are evident at this early age

o   There are a number of characteristics that explain the variation in prevalence. Prevalence increased as children accumulated more of these characteristics

o   The majority of the characteristics can be changed by policies and services that aim to improve health status, health behaviours and socio-economic status

http://chronicconditions.thehealthwell.info/

o Factsheet, executive summary, main report

o Detailed data tables

o Prevalence web tool

o Early years theme in Community Profiles

Longstanding health conditions among three-year-old children in the Republic of Ireland in 2011

A report based on data from the "Growing Up in Ireland" study

IPH

Thank you!