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

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Outline

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- Aims
- Method
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Context

- Longstanding health conditions
- Importance of early years
- Current policy
- How the study contributes
Aims of the study

- Estimate national prevalence among children of longstanding conditions that are relatively common and relatively serious
- Describe how national prevalence varies with important characteristics
- Describe how prevalence varies across the 29 administrative counties and five cities
Method

- Growing Up in Ireland (Infant Cohort Wave Two): Three-year-olds in 2011
- Carer-reports of:
  - A “longstanding illness, condition or disability”
  - Diagnosed asthma/asthma symptoms
  - Diagnosed eczema/skin allergy
  - Sight problems that required correction
  - Hearing problems that required correction
Method

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

- Describe how national prevalence varies with important characteristics:
  - Identified an initial set of characteristics in GUI
  - Developed a national statistical model (stepwise variable selection procedure)
  - Ensured that the model satisfied statistical criteria
Method

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

- “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

- Based on the national statistical model – remove characteristics if there were no data for counties / cities
Findings
“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
Diagnosed asthma or asthma symptoms

“Asthma,” diagnosed by a medical professional or 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
“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...

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
“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 prevalence % not statistically significant
A "long standing illness, condition or disability": Estimated number of cases among three-year-olds, 2011
Summary of findings

- Longstanding conditions are common among three-year-olds
- Inequalities in health are evident at this early age
- The conditions are more common among
  - Boys
  - Children whose carer is ill
  - Children from poorer socio-economic circumstances
  - Children with poorer birth circumstances
- Risks accumulate; high prevalence among some groups
Challenges

- Representativeness of GUI
- Carer/parent reports
- Statistical modelling and sample size
- 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)
Implications for research / information

**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

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

- Inequalities in health are evident at this early age

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

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

http://chronicconditions.thehealthwell.info/

- Factsheet, executive summary, main report
- Detailed data tables
- Prevalence web tool
- Early years theme in Community Profiles
Thank you!