

**INFANT
COHORT**

AT 3 YEARS
DEC. 2011



**Growing Up
in Ireland**

National Longitudinal
Study of Children

GROWING UP IN IRELAND

KEY FINDINGS: INFANT COHORT (at 3 years)

NO. 1 THE HEALTH OF 3-YEAR-OLDS

INTRODUCTION

This is the first in a series of *Key Findings* from the second round of interviews with the Infant Cohort in *Growing Up in Ireland*. The families of 11,100 children were initially interviewed in 2008/2009 when the Study Child was nine months old. They were re-interviewed between January and August 2011, when the children were three years old. This Key Finding presents summary information on the health of children at three years of age.

Differences in health, even at this young age, can have long-term consequences. This document highlights some early results on the health of three-year-olds, including issues of concern both nationally and internationally such as childhood obesity, longstanding illness, injury rates, and antibiotic usage.

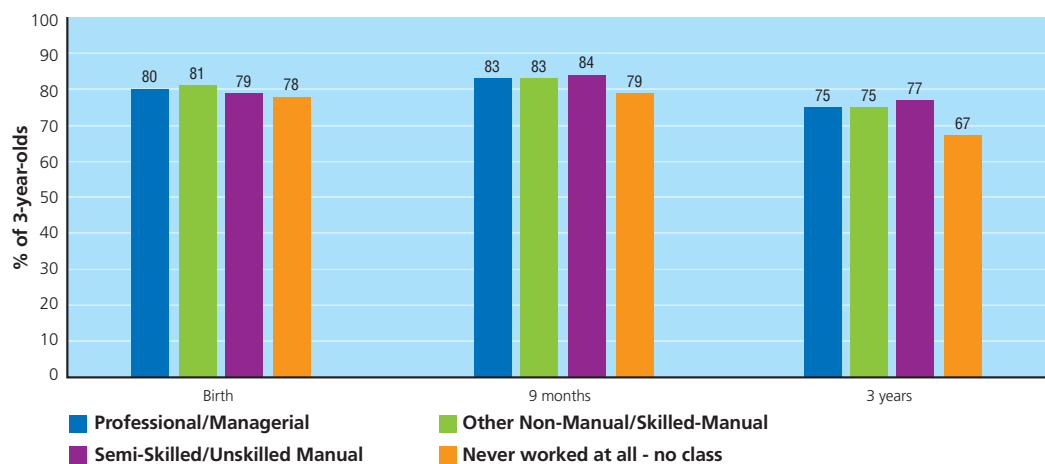


THE GREAT MAJORITY OF THREE-YEAR-OLDS WERE IN GOOD HEALTH, ACCORDING TO THEIR MOTHERS

Mothers were asked to rate their child's health over the past 12 months, using a four-point rating scale.

- Most of the children participating in the study (98%) were described as being in good health; 75% were rated as *very healthy* and a further 23% were rated as *healthy, but a few minor problems*.
- Only a small number of children were identified as having more serious health problems at three years of age, with 2% being rated as *sometimes quite ill* and a further 0.3% reported as being *almost always unwell*.
- Girls were more likely to be reported as *very healthy* (78%) than boys (72%).

Figure 1: Percentage of three-year-olds rated as 'very healthy' by household social class from birth through to three years of age



THE GAP IN CHILD HEALTH BETWEEN SOCIAL CLASS GROUPS WIDENS OVER TIME

- Figure 1 shows that a socio-economic gradient in health was apparent at three years of age. The four right-hand columns indicate that 67% of children in the most disadvantaged social class group were *very healthy* compared with over three-quarters of children from more advantaged backgrounds.
- Figure 1 also shows that the gap in the proportion of children who were rated *very healthy* by their mothers increased between social classes from birth to age three, showing that differences in health across social groups are evident as early as three years of age. The differences between groups in terms of the proportion of mothers who rated their child as *very healthy* were small at birth and at nine months of age, but by three years of age there was a gap of eight percentage points between those in the most advantaged and those in the most disadvantaged social class categories.



ASTHMA WAS THE MOST COMMONLY REPORTED ILLNESS

According to previous research, between 10% and 20% of children will be affected by a long-term health condition, which can have implications for a child's overall development. The mother of the Study Child was asked whether her child had been diagnosed with any longstanding illness, condition or disability.

- Just under 16% of three-year-old children were reported as having at least one longstanding illness, condition or disability. The major illness types are shown in Table 1. Note that some children had more than one condition.

Table 1: Percentage of three-year-olds who had been diagnosed by a doctor as having a longstanding illness, according to mothers

Illness Type	Total	Boys	Girls
	(%)	(%)	(%)
Asthma	5.8	7.1	4.5
Eczema/Skin Allergy	3.9	4.8	3.0
Food/Digestive allergy	1.2	1.5	0.9
Heart abnormalities	0.9	0.9	0.9
Respiratory allergy (including hayfever)	0.8	1.3	0.4
Non-food allergies	0.3	0.3	0.2
Bone, joint, muscle problems	0.6	0.5	0.7
Problem using arms or legs/hands or fingers	0.4	0.4	0.3
Epilepsy or seizures	0.3	0.3	0.2
Down syndrome	0.3	0.3	0.3
Autism spectrum disorder	0.3	0.4	0.1
Other	4.0	4.2	3.7

- Asthma was the most commonly reported illness type, with 5.8% of three-year-olds having received a doctor diagnosis, according to their mothers. The next most common illness types were *eczema/skin allergies* (3.9%) and *food/digestive allergies* (1.2%). Taken together, these three conditions accounted for more than half of all chronic illness among three-year-olds.
- Boys were more likely (18%) than girls (13%) to have a longstanding illness, condition or disability. Boys also had higher rates of *asthma*, *eczema/skin allergies*, and *respiratory and food/digestive allergies* compared with girls, as shown in Table 1.

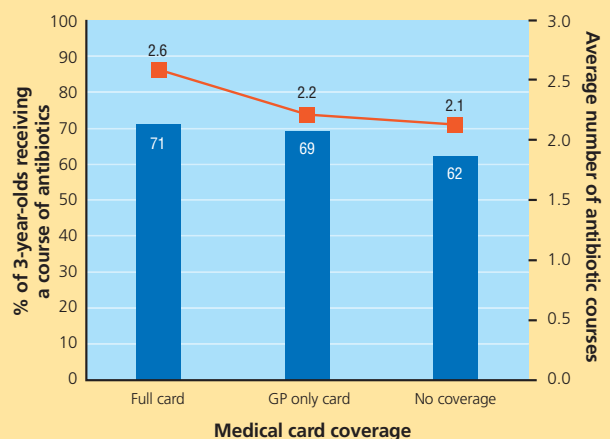


TWO-THIRDS OF THREE-YEAR-OLDS HAD RECEIVED A COURSE OF ANTIBIOTICS IN THE PAST YEAR

Research suggests that pre-school children are the most likely to be taking antibiotics and that overuse can result in antibiotic resistance. In *Growing Up in Ireland*, the Study Child's mother was asked about the number of antibiotic courses received by her child in the 12 months preceding the interview.

- Two-thirds (66%) of three-year-olds had received at least one course of antibiotics in the 12 months preceding the interview.
- Children with a full medical card (35% of all children in the sample) or a GP-only medical card (5% of the sample) were more likely to have received a course of antibiotics than those without a medical card (Figure 2).
- Children with a full medical card received a higher number of antibiotic courses on average (2.6) compared with those without a medical card (2.1). This relationship still held even after accounting for differences in overall health among those with and without a medical card (Figure 2).

Figure 2: Percentage of three-year-olds who had received a course of antibiotics and average number of courses received, by medical card coverage



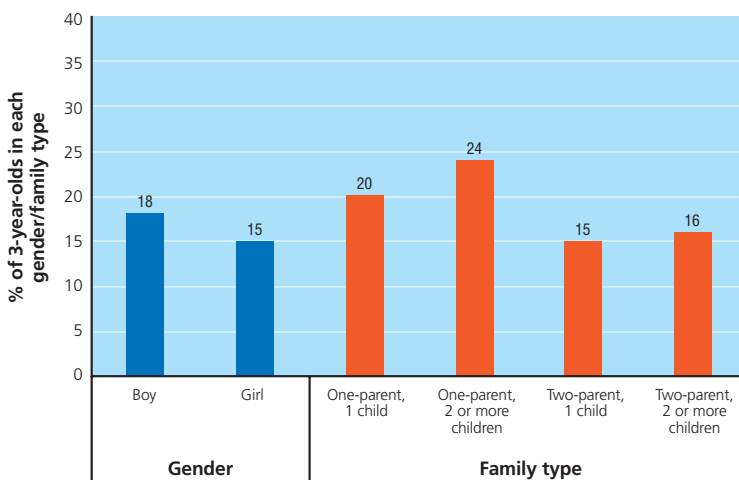
ONE IN FIVE CHILDREN HAD AN ACCIDENT OR INJURY THAT REQUIRED HOSPITAL ATTENTION, BY THE AGE OF THREE

Injury is the leading cause of death among children in developed countries. Mothers in *Growing Up in Ireland* were asked if the Study Child had ever had an accident or injury that required hospital treatment or admission and, if so, how many accidents he/she had in total.

- Overall, 17% of three-year-olds were reported as having had an accident or injury that required hospital treatment or admission.

- Figure 3 shows that boys (18%) were somewhat more likely than girls (15%) to have had an accident or injury that required hospital treatment or admission.
- Figure 3 also shows that children from one-parent families had the highest injury rates across different family types, where 20% of children in one-parent, one-child families experienced an injury compared with 15% of children in two-parent, one-child families.
- As in other countries, there was also a tendency for injury rates to increase with the number of children living in the household.

Figure 3: Percentage of three-year-olds who had ever experienced an accident or injury that required hospital treatment or admission, by gender of the Study Child and family type

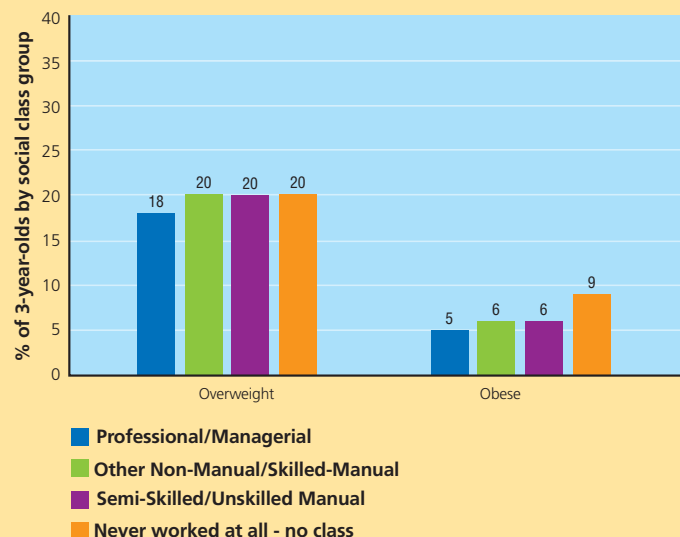


ONE IN FOUR THREE-YEAR-OLD CHILDREN WERE OVERWEIGHT OR OBESE

The child's height and weight measurements were recorded to calculate their Body Mass Index (BMI), which is a widely used way to determine if children have a healthy body weight.

- In total, 76% of three-year-olds were classified as *non-overweight*, 19% as *overweight* and 6% as *obese*. In other words, almost a quarter of all three-year-olds had a BMI beyond the range that is considered healthy for this age group, according to the International Obesity Task Force thresholds.
- Children's weight was related to household social class. Figure 4 shows that 5% of children in families in the professional/managerial group were classified as *obese* at three years of age compared with 9% of those in the most disadvantaged social class group. However, at least one-fifth of children in every social class were *overweight*.

Figure 4: Percentage of three-year-old children classified as overweight or obese, by household social class



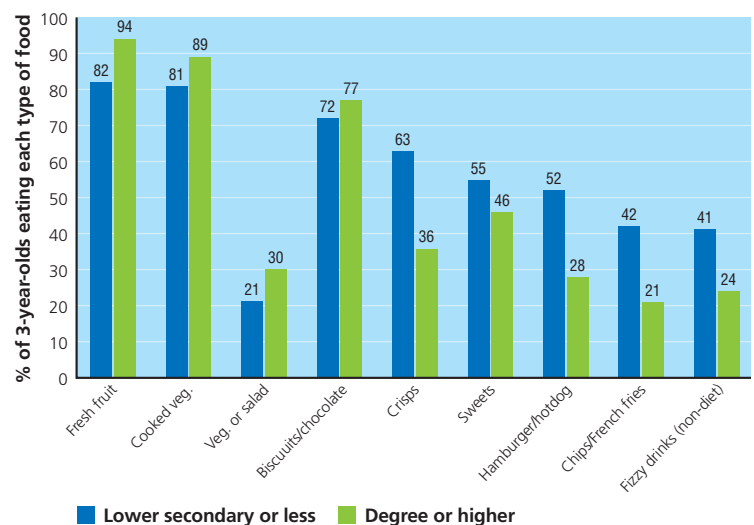


SOCIAL CLASS IS ASSOCIATED WITH CHILDREN'S DIET QUALITY

Diet quality is related to health, and poor diets are associated with obesity. The quality and composition of children's diet during early childhood has attracted increasing interest in recent years, especially in the context of rising obesity in childhood. In the course of the interview, mothers were asked to recall which of 15 items their children had eaten in the preceding 24 hours.

- Figure 5 shows that the higher the mother's level of education, the more fruit and vegetables the child ate. 94% of children whose mother had a degree-level qualification had taken at least one portion of fruit in the preceding 24-hour period, but this dropped to 82% among those with a lower secondary education or less. However, over 80% of all children ate fruit and/or vegetables in the 24-hour period.
- Figure 5 also shows that children's consumption of energy-dense foods such as crisps, sweets, chips, and non-diet fizzy drinks increased as parental education fell. 63% of children whose mother had a lower secondary education or less ate at least one portion of crisps compared with 36% of those from degree-level backgrounds, although consumption of biscuits/chocolates was over 70% for both groups of children.
- Differences in diet quality may contribute to the higher risk of being overweight/obese, observed in Figure 4.

Figure 5: Percentage of three-year-olds consuming at least one portion of various foods by mother's highest level of educational attainment





Growing Up in Ireland is the National Longitudinal Study of Children. It tracks the development of two nationally representative cohorts of children: an *Infant Cohort* which was interviewed initially at nine months and subsequently at three years of age; and a *Child Cohort* which was interviewed initially at nine years and subsequently at 13 years of age.

The Study is funded by the Department of Children and Youth Affairs, in association with the Department of Social Protection and the Central Statistics Office. It is being carried out by a consortium of researchers led by the Economic and Social Research Institute (ESRI) and Trinity College Dublin (TCD).

The first wave of fieldwork with the families of the Infant Cohort included approximately 11,100 nine-month-olds, their parents and carers. Interviews began in September 2008 and were completed in March 2009. Interviews for the second round of interviews with this cohort took place between January and August 2011. A total of 90% of the original sample of nine-month-olds were successfully re-interviewed.

Access to *Growing Up in Ireland* data

An anonymised version of all quantitative and qualitative data collected in ***Growing Up in Ireland*** is being made available through the Irish Social Science Data Archive (ISSDA) (<http://www.ucd.ie/issda/data/growingupinireland/>) and the Irish Qualitative Data Archive (IQDA) (<http://www.iqda.ie/content/growing-ireland>).

'Thank you' to all participants

The success of ***Growing Up in Ireland*** is the result of contributions from a large range of individuals, organisations and groups, many of whom helped to recruit the sample and collect the data. We are particularly grateful to the thousands of families from every part of the country who gave so very generously of their time on two occasions to make this Study possible. A very big 'thank-you' to the children and their families.

www.growingup.ie



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