



## Cumulative incidence of entry into out-of-home care: Changes over time in Denmark and England<sup>☆</sup>



Mads-Bonde Ubbesen<sup>a</sup>, Ruth Gilbert<sup>b,\*</sup>, June Thoburn<sup>c</sup>

<sup>a</sup> KORA/Aarhus University, Denmark

<sup>b</sup> Clinical Epidemiology, Population, Policy and Practice Programme, UCL Institute of Child Health, London, UK

<sup>c</sup> Emeritus Professor of Social Work, University of East Anglia, UK

### ARTICLE INFO

#### Article history:

Received 23 May 2014

Received in revised form

21 September 2014

Accepted 6 October 2014

Available online 12 November 2014

#### Keywords:

Foster care

Out-of-home care

International comparison

Cumulative incidence

### ABSTRACT

Policies and thresholds vary for placing children into out-of-home care (OHC) at different ages. Evidence is lacking that quantifies the risk of entering OHC by age, and how this varies over time and between countries. We determined the age-specific cumulative incidence of ever entering OHC during childhood in Denmark and in eight local authorities in England. We used administrative data for any form of OHC (except respite care) provided by children's social services in Denmark and England from 1992 to 2008. Using life tables and national population estimates, we calculated the cumulative incidence of entry into OHC by year of age for cohorts born in 1992–1994 through to 2006–2008. The cumulative incidence of entry into OHC decreased over time in Denmark and increased in England at all ages. Cumulative incidence of OHC in the first year of life was similar in Denmark and England for infants born in 1992–1994 (Denmark 2.83/1,000, England 2.89/1,000), but infants born in 2007–2008 were nearly three times as likely to enter OHC before their first birthday in England (4.50/1,000) than in Denmark (1.61/1,000). Entry into OHC during adolescence was more common in Denmark than in England so that by 16 years old the cumulative incidence of ever entering OHC during childhood was twice as high in Denmark (33.83/1,000) as in England (15.62/1,000). Diverging trends over time in the use of OHC in Denmark and England are likely to reflect changing policies in the two countries.

© 2014 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/3.0/>).

### Introduction

When there are serious concerns about the risk of harm to a child due to maltreatment (comprising abuse or neglect), child protection services in western developed countries have legislative powers to remove the child from their family and place them in out-of-home care (OHC) (Sethi, Barnekow, Mitis, Gilbert, & Ulvestad, 2013; Thoburn, 2013). The aim and justification of out-of-home care is to provide a safe and nurturing environment for a child who would otherwise be at risk of harm. Care can take different forms including foster care by relatives or carers unknown to the family, or residential group care or boarding school, where groups of children are cared for by paid employees. OHC may also involve therapeutic intervention as with multi-dimension treatment foster care (MTFC) for adolescents with challenging behaviour (Biehal, Ellison, Baker, & Sinclair, 2010; Chamberlain, 2003). OHC can be very brief or permanent and may be ended by reunification with the child's

<sup>☆</sup> RG is a co-investigator with the Administrative Data Research Centre England, funded by the Economic and Social Research Council.

\* Corresponding author.

family, exit to independent living, or adoption (Gilbert, Parton, & Skivenes, 2011; Rushton, 2004; Sammut, 2011; Thoburn & Courtney, 2011; Thoburn, 2013; Vinnerljung, Hjern, Weitoft, Franzén, & Estrada, 2007).

Longitudinal descriptive Scandinavian studies indicate that children in OHC do far worse than children in general on outcomes related to social inclusion in adult life (Andersen & Fallesen, 2010; Vinnerljung & Ribe, 2001; Vinnerljung & Sallnäs, 2008; Vinnerljung, Hjern, & Lindblad, 2006; Vinnerljung, Öman, & Gunnarson, 2005; Vinnerljung, Sundell, Löfholm, & Humlesjö, 2006). This does not necessarily mean that OHC has no benefit or a negative effect, as it is unknown whether these children would have done far worse if no care had been initiated. Evidence is lacking as to whether the benefits of placing children in short or longer term OHC outweigh the trauma and disruption for both child and family and justify overriding the rights of family members (Biehal et al., 2010; Bullock, Courtney, Parker, Sinclair, & Thoburn, 2006; Egelund & Vitus, 2009; Schofield & Beek, 2009; Thoburn & Courtney, 2011; Vinnerljung & Hjern, 2011).

Findings from a recent systematic review that analysed concurrent comparative studies of children who entered care with similar children who remained in the family home were summarised in the recent WHO Europe report (Sethi et al., 2013). The review found no evidence of improved outcomes and some evidence of worse outcomes associated with out of home care. The authors argue that selection biases inherent even in well-conducted cohort studies are likely to explain worse outcomes. Similar selection biases are likely to be a factor in the growing body of English research that concludes that a higher proportion of maltreated children who return home from care have worse outcomes than is the case for those who remain in care (Thoburn, Robinson, & Anderson, 2012). As discussed by Ubbesen (2013) selection bias and confounding by indication is an overarching problem in studies of the effects of OHC on children's outcomes.

Understanding contextual factors influencing children's outcomes is also important. According to modern theories of child development, services targeting children at risk is just one of the many factors that influence children's life (Belsky, 1980; Bronfenbrenner, 1977; Chicchetti, 2006; Chicchetti & Valentino, 2006; Elder, 2006; Flouri, 2008; Sameroff, 2000) and as discussed by Munro (2005) factors related to policy and culture might have a big impact on decision related to OHC.

International comparisons of the likelihood of entering OHC can offer insights into the impact of different policies on the use of OHC services and pave the way for more detailed comparisons between countries. While these comparisons are crude, they describe and quantify the extent of use of OHC and how this is changing over time, raising questions about what policies are most effective. Previous comparative studies have reported starkly varying rates of entry into OHC for infants (Gilbert et al., 2012), but beyond infants they have been able to compare only annual incidence rates (yearly entries/child population) and/or prevalence rates (in care on a given date/child population), rather than cumulative incidence (age at first entry/age-specific child population) (Gilbert et al., 2011; Tilbury & Thoburn, 2008).

Cumulative incidence is an important measure. It describes the age when child welfare systems first place a child in OHC, which is strongly related to the reason for OHC. Age is especially important for two reasons. Placement for maltreatment can occur at all ages, but teenagers are typically placed in care because of problems related to the child, whereas younger children are placed in care because of lack of parental resources (Franzen, Vinnerljung, & Hjern, 2008; Khoo, Skoog, & Dalin, 2012). Thus cumulative incidences can be used to shed light on what type of problems OHC is a response to. Secondly, age is important as policy guidelines in several years have emphasised the importance of early intervention (Frame, 2002; Tilbury & Osmond, 2006). Cumulative incidence rates have been reported by other studies using Danish data and show a decreasing likelihood of entry into care (Fallesen, Emanuel, & Wilderman, n.d.; Ubbesen, Petersen, Mortensen, & Kristensen, 2013). However, to the best of our knowledge, no international comparative study has determined the cumulative risk of entry into OHC using similar data analysed in the same way.

The aim of this study is to provide a descriptive analysis of the extent to which age at first entry into OHC varies between England and Denmark and how this varies over time. This evidence is widely considered to be the first step in policy analysis (Patton et al., 2012). Our findings should generate questions about potential explanations for differences between the two countries and the relative effectiveness of the differential use of OHC. In addition, we contribute to understanding of the context in which OHC is used in the two countries, which is relevant to interpreting other studies.

## Methods

### Study Population

We analysed routinely collected administrative data for children born between 1992 and 2008 who entered OHC before their 16th birthday in Denmark and in eight local authorities in England. We analysed birth cohorts of children who were born between 1992 and the end of 2008 who were placed in OHC by children's social services. The longest complete follow up was for children born in 1992–1993 who were followed to their sixteenth birthday before the end of 2008.

Placement could be agreed to by parents or not and in most cases would be because of concerns about child maltreatment (abuse or neglect) (Thoburn, 2010a). We excluded placements that were only for planned periods of short term 'respite' care. These were identifiable in the data bases by the legislative powers. First because respite care as a category is on the borderline of what is regarded as OHC. In the Danish registry respite care is not regarded as OHC, but a preventive measure. Secondly, because respite care is used for children with complex health problems. We also excluded children in England data who became the subject of a court-order but remained living with their parents.

## Data Sources

**English Data.** Data were provided by the Department for Education, which has been required to maintain data on looked after children since 1991 (Department for Education, 2012, 2014). The Department for Education restricted the data provided for this study to eight local authorities (out of 154), which they selected as being representative of the range of local authorities. Because the Department for Education reduced routine data collection to one-third of all looked after children between 1998 and 2003 (identified by a day of the month divisible by three), we limited analyses to this one-third sample for all calendar years to ensure that we had complete trajectories for children within their local authority (identified by a unique number within each local authority).

**Danish Data.** The Danish data were obtained from The Register of Support for Children and Adolescents maintained by The National Appeals Board since 2006 (Statistics Denmark before then). The registry was established in 1977 and contains information on all activated measures targeting children at risk of maltreatment and other potentially harmful stresses in Denmark since that date. In order to obtain information about the children's birthdays the data were linked to the population register using the unique personal identification number which is assigned to all citizens living in Denmark.

**Denominator Populations.** We used denominator populations for both Denmark (1st of January each year) and the eight English local authorities (1st of July each year) based on extrapolations from the decennial census to each calendar year. The English data were provided from the Office for National Statistics (Statistics, 2013) and the Danish data was provided by Statistics Denmark (Statistics Denmark, 2013). We did not analyse cumulative incidence by ethnic or national origin because classifications for ethnicity (England) or nationality (Denmark) were not comparable in the OHC data (Thoburn, Chand, & Procter, 2005; Ubbesen, Petersen, Mortensen, & Kristensen, 2012), and appropriate denominators are not available by local authority in England.

## Analysis

We calculated the cumulative incidence of being placed in OHC for the first time by year of age and calendar period of birth. To avoid small numbers of children born in each calendar period and to simplify reporting, we grouped children into five three year birth cohorts: 1992–1994, 1995–1997, 1998–2000, 2001–2003, and 2004–2006, and one two year birth cohort 2007–2008.

We constructed life tables containing a cell for each calendar year and child year of age for births after 1st January 1992. The numerator of each cell was the number of children who first entered OHC during the specific calendar year and year of age. The denominator was calculated for each cell based on census data. After a first entry into care, a child remained in the numerator and denominator for subsequent calendar/age years. For every calendar year the age specific incidence rate was calculated by dividing the number of entries into OHC by the child population of that specific age and calendar year. The cohort specific incidence rates by age were summed up in order to describe the cumulated incidence rate over an entire childhood. This method is based on the assumptions that children entering care in each local authority were counted in the resident denominator population; and that resident children did not previously enter care in another local authority (relevant to England only) or another country.

## Results

### Study Population

The number of children in each birth cohort is shown according to age at first entry into OHC in Table 1. Few children entered OHC for the first time aged 10 years or more in England (24% in the 1992–1994 birth cohort) whereas 55% of children entered care for the first time aged 10 years or more in Denmark (1992–1994 birth cohort; Table 1). Overall more boys than girls entered OHC in England and Denmark (Table 1). Of children entering care in England, 59% ( $n = 1,690$ ) were white British or European. In Denmark, 89% ( $n = 13,904$ ) were long-term Danish citizens.

The type of care at first entry to OHC differed between England and Denmark (Table 2). For infants, foster care was the predominant type of OHC in England (78% of first placements in this age group), whereas residential care was used most often in Denmark (54%). This pattern – high use of foster care for first entry placement in England and high use of residential care in Denmark – was evident for all age groups, apart from 15–16 year olds where residential care was the most frequent type of first placement in England as well as in Denmark. Boarding school was the first placement for 16% of 15–16 year olds in Denmark but this type of placement is very rare in England, though sometimes used at a later stage. Placement with an adoptive family prior to legal adoption is recorded separately in England but rarely used and not recorded as a separate category for entry into OHC in Denmark. However, it should be noted that placement at first entry gives a misleading impression of the overall extent that different types of OHC are used as many children remain in the first placement, which is often used as an emergency measure, for only a short period of time.

**Table 1**

Number of children first entering out-of-home care in each age group and by gender in England<sup>b</sup> and Denmark (percentages of total entries into care in brackets).

Age at entry (years)	Birth cohorts							
	1992–1994		1995–1997		1998–2000		2001–2003	
	England	Denmark	England	Denmark	England	Denmark	England	Denmark
<1	131 (19.3%)	565 (8.3%)	138 (23.5%)	544 (14.3%)	204 (36.2%)	587 (25.2%)	228 (47.4%)	536 (36.1%)
1 < 3	96 (14.2%)	511 (7.5%)	123 (20.9%)	563 (14.8%)	121 (21.5%)	423 (18.2%)	127 (26.4%)	338 (22.7%)
3 < 10	290 (42.8%)	2,096 (30.7%)	242 (41.2%)	1,805 (47.5%)	235 (41.7%)	1,282 (55%)	126 (26.2%)	612 (41.2%)
10 < 15	136 (20.1%)	1,980 (29%)	85 (14.5%)	888 (23.4%)	4 (0.7%)	37 (1.6%)	–	–
15–16 <sup>a</sup>	25 (3.7%)	1,669 (24.5%)	–	–	–	–	–	–
Gender								
Boys	363 (53.5%)	3,725 (54.6%)	292 (49.7%)	2,104 (55.4%)	292 (51.8%)	1,258 (54%)	253 (52.6%)	774 (52.1%)
Girls	315 (46.5%)	3,096 (45.4%)	296 (50.3%)	1,696 (44.6%)	272 (48.2%)	1,071 (46%)	228 (47.4%)	712 (47.9%)
Total	678	6,821	588	3,800	564	2,329	481	1,486

Age at entry (years)	Birth cohorts					
	2004–2006		2007–2008		Totals	
	England	Denmark	England	Denmark	England	Denmark
<1	258 (67.4%)	467 (53.7%)	140 (92.7%)	313 (92.6%)	1,099 (38.6%)	3,012 (19.3%)
1 < 3	102 (26.6%)	282 (32.4%)	11 (7.3%)	25 (7.4%)	580 (20.4%)	2,142 (13.7%)
3 < 10	23 (6%)	121 (13.9%)	–	–	916 (32.2%)	5,916 (37.8%)
10 < 15	–	–	–	–	198 (7%)	2,905 (18.6%)
15–16 <sup>a</sup>	–	–	–	–	52 (1.8%)	1,669 (10.7%)
Gender						
Boys	199 (52%)	453 (52.1%)	82 (54.3%)	173 (51.2%)	1,481 (52.1%)	8,487 (54.3%)
Girls	184 (48%)	417 (47.9%)	69 (45.7%)	165 (48.8%)	1,364 (47.9%)	7,157 (45.7%)
Total	383	870	151	338	2,845	15,644

<sup>a</sup> Only based on 1992–1993 cohorts.

<sup>b</sup> Based on one-third of children admitted to OHC in eight local authorities in England.

### Cumulative Incidence

Cumulative incidence rates for first entry into OHC in England and Denmark are shown in Figs. 1 and 2 and Table 3. Rates of entry into OHC were similar in England and Denmark for children entering before 3 years old who were born in 1992–1994. For cohorts born thereafter trends diverged. In England, the age-specific cumulative incidence increased with each successive birth cohort (Fig. 1 and Table 3) at all ages at first entry into OHC. For infants, the rate of entry into care increased from 2.89/1,000 for children born in 1992–1994 to a peak of 5.88/1,000 for children born in 2004–2006. Similar absolute increases were seen for first entry by 10 years of age (11.68/1,000 – if born in 1992–1994 to 13.74/1,000 if born in 1998–2000).

In Denmark, the age-specific incidence decreased with each successive birth cohort. The rate for infants fell from 2.83/1,000 for babies born in 1992–1994 to 1.61/1,000 for babies born in 2007–2008 (Table 3). Many more children entered

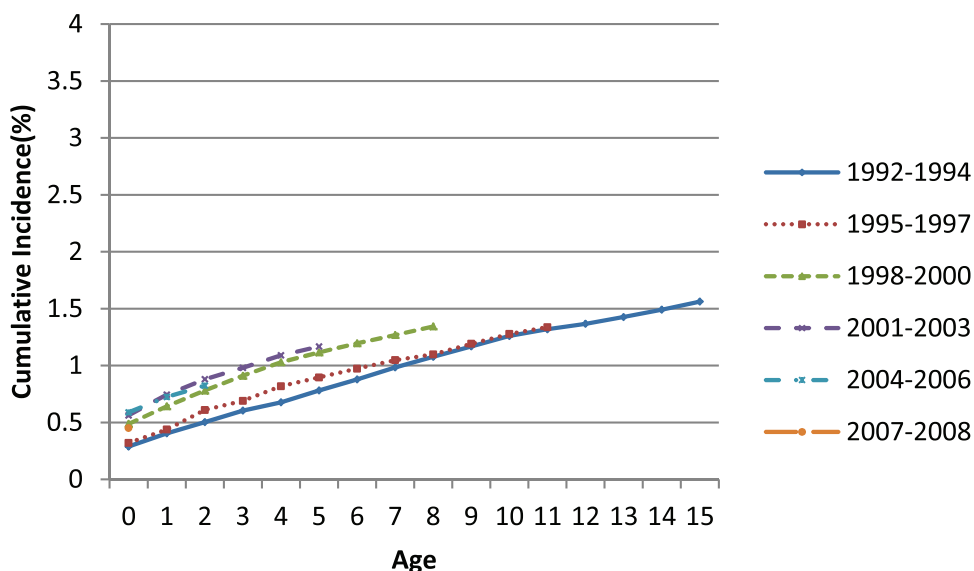
**Table 2**

Percentage of children (*n*) by age group at first entry according to type of out-of-home care in England<sup>a</sup> and Denmark 1992–2008.

Type of out-of-home care	Age at first entry (years)				
	<1	1–2	3–9	10–14	15–16
England <sup>a</sup>					
Foster	78% (860)	88% (512)	94% (857)	70% (158)	40% (10)
Residential	18% (200)	7% (38)	3% (27)	19% (43)	52% (13)
Adoption	2% (18)	3% (15)	0% (3)	0% (0)	0% (0)
Other <sup>b</sup>	2% (21)	3% (15)	3% (29)	11% (24)	8% (2)
Total ( <i>n</i> = 2,845)	1,099	580	916	225	25
Denmark					
Foster	44% (1,332)	55% (1,169)	49% (2,895)	31% (909)	14% (237)
Residential	54% (1,631)	43% (928)	49% (2,875)	57% (1,665)	58% (971)
Boarding school	0% (1)	0% (5)	0% (22)	6% (170)	16% (263)
Other <sup>b</sup>	2% (48)	2% (40)	2% (124)	6% (161)	12% (198)
Total ( <i>n</i> = 15,644)	3,012	2,142	5,916	2,905	1,669

<sup>a</sup> Based on one-third of children admitted to OHC in eight local authorities in England.

<sup>b</sup> "Other" includes unknown.



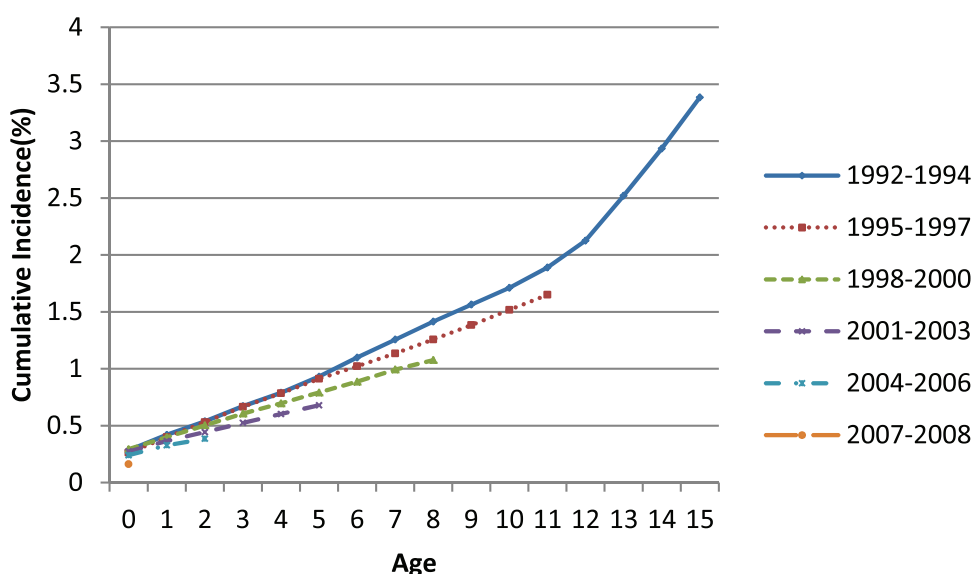
**Fig. 1.** Cumulative age-specific incidence showing at age first entry into out-of-home care in England (based on one-third of children entering care in eight local authorities).

OHC for the first time when aged 10 years or over in Denmark than in England. By 16 years old, more than twice as many children had entered OHC in Denmark than in England (33.83 vs 15.62/1,000).

## Discussion

In eight local authorities in England, children were more likely to be placed in OHC in recent years than in the 1990s, and to be placed at a younger age. In Denmark, this trend was reversed with children being less likely to enter care in recent years. Children born in 1992–1994 had a similar rate of entry into OHC by 3 years old in England and in Denmark but by 10 or more years, many more in Denmark than in England had entered OHC. By 16 years old, twice as many children had ever been placed in OHC in Denmark than in England.

This is the first study to report comparisons of the cumulative incidence rate of entry into OHC in different European countries. Previous studies have reported annual prevalence or incidence figures which fail to account for re-entry of the same children in successive years or those who left care and did not return e.g. returning and remaining at home or, in England, leaving care via adoption (Gilbert et al., 2012; Thoburn, 2010b). The longevity of the data used in this study allowed



**Fig. 2.** Cumulative age-specific incidence showing at age first entry into out-of-home care in Denmark.

**Table 3**

Cumulative incidence of first entry into out-of-home by age (in years) in England and Denmark: rate per 1,000 child population (95% confidence interval).

Age (years)	Birth cohorts					
	1992–1994		1995–1997		1998–2000	
	England	Denmark	England	Denmark	England	Denmark
<1	2.89 (2.39–3.38)	2.83 (2.6–3.07)	3.21 (2.67–3.74)	2.62 (2.4–2.84)	4.88 (4.21–5.54)	2.93 (2.7–3.17)
<3	5.03 (4.37–5.69)	5.38 (5.06–5.7)	6.09 (5.35–6.83)	5.31 (5–5.62)	7.81 (6.96–8.66)	5.03 (4.72–5.34)
<10	11.68 (10.66–12.7)	15.63 (20.63–21.88)	11.91 (10.86–12.97)	13.83 (13.33–14.33)	13.74 (12.34–15.14) <sup>b</sup>	11.64 (11.07–2.21) <sup>b</sup>
<15	14.91 (13.74–16.07)	29.34 (28.62–30.07)				
<16 <sup>a</sup>	15.62 (14.17–17.06)	33.83 (32.88–34.78)				

Age (years)	Birth cohorts					
	2001–2003		2004–2006		2007–2008	
	England	Denmark	England	Denmark	England	Denmark
<1	5.62 (4.89–6.35)	2.72 (2.49–2.95)	5.88 (5.17–6.6)	2.40 (2.19–2.62)	4.50 (3.76–5.24)	1.61 (1.43–1.78)
<3	8.79 (7.88–9.71)	4.43 (4.14–4.72)	8.24 (7.38–9.09)	3.85 (3.57–4.12)		

<sup>a</sup> Estimates only based on 1992–1993 cohorts.<sup>b</sup> Estimates only based on 1998–1999 cohorts.

us to examine changes over time and we were able to standardise reason for OHC by removing the large minority of children with complex health problems who are placed solely for respite care.

The strength of the study is that it illustrates how differently OHC is used in the two countries. In general Denmark is viewed as a country with a high incidence rate of OHC (Tilbury & Thoburn, 2008). But analysing data using birth cohorts and age at entry to generate graphs of cumulative risk, illustrates a more complex pattern where the high annual incidence rate in Denmark can be explained by a social use of OHC targeting teenagers.

One weakness is the study does not provide answers on many of the questions it generates. Another weakness is the fact that we were allowed to analyse data for only eight local authorities in England and we could analyse longitudinal data for only one-third of the population. However, taken together, the eight local authorities were broadly representative of England as a whole. The average annual incidence rate of starting care each year in 2008–2010 was 2.3/1,000 children in England and 2.0/1,000 in the eight local authorities (Department for Education, 2012). The average prevalence of children being looked after at the March census in 2008–2010 was 5.4/1,000 children for the whole of England and for the eight local authorities. The restriction to one-third of children with a day of the month divisible by three reduced the power of our analyses but would not have biased the cumulative age-specific incidence rate. An important weakness of the English data is that a unique national identifier is not used for children across all local authorities. Hence, the same child entering OHC in different local authorities would be counted as separate children. Similarly, it is policy to allocate a new identifier for adopted children, so that a child adopted from care who re-entered care at a later date will be counted twice (Thoburn, 2010a). These problems may have led to marginally overestimated rates in England. A further weakness is the difficulty of obtaining accurate denominator populations based on extrapolations from decennial census data. This was necessary as the English data were not linked to birth registration data. Instead, for each cohort of births, we used census extrapolations to estimate the denominator population for each year of age and calendar year and assumed that children entering care would have been counted among the denominator population. On the Danish data, we compared this approach to analyses using all births as the denominator population. For children born in 1992–1994, 26/1,000 children entered OHC by their 15th birthday as opposed to 29.3/1,000 reported in Table 3. The marginal reduction when analysing only children born in Denmark may partly reflect inclusion of children immigrating into Denmark in our analyses. A possible limitation is that the last data we have with cumulative incidence up to age 16 is from the 1992–1994 birth cohorts. However, data describing prevalence and annual incidences from 2011 to 2012 show that this trend has continued. The prevalence rate for Denmark is down from 10.2 per 1,000 in 2005 to 9.5 per 1,000 in 2012: the annual incidence rate is down from 3.0 per 1,000 in 2004–2005 to 2.0 per 1,000 in 2012 (Ankestyrelsen, 2013). In England, the prevalence rate is up from 5.5 per 1,000 in 2005 to 6.0 per 1,000 in 2013 and the annual incidence rate is up from 2.3 in 2004–2005 to 2.6 per 1,000 in 2012–2013 (Department for Education, 2014; Thoburn, 2010b).

The type of OHC used may reflect different purposes in Denmark and England. We showed that the first type of OHC in Denmark was most frequently residential care (including boarding schools; Table 2). Table 4 shows the continuing high proportion of on-going placements in residential care, based on annual returns for 2007 and 2012 on children in OHC on a given date (Department for Education, 2014; Statistics Denmark, 2013). These patterns suggest that residential care is used more often in Denmark than in England for troubled teenagers as a family support or compensatory education measure. In England, the 79% of children in foster or pre-adoptive family care (with only 11% in residential care or boarding schools) reflects the need to provide an alternative family environment and parenting for predominantly younger children entering OHC (Table 4). Further research is needed to determine whether these different types of placements for different purposes



**Table 4**

Prevalence of children (0–17 years) in out-of-home care in Denmark and in England according to type of placement.

Type of care	2007		2012	
	Denmark <sup>a</sup> (n = 12,655)	England <sup>b</sup> (n = 59,970)	Denmark <sup>a</sup> (n = 12,025)	England <sup>b</sup> (n = 67,080)
Family foster care	47%	70%	57%	75%
Pre-adoptive family	n.a.	5%	n.a.	4%
Residential care	45%	12%	39%	10%
Boarding school	5%	2%	3%	1%
Other	3%	12%	1%	10%
Total	100%	100%	100%	100%

<sup>a</sup> Data source: Statistics Denmark ([www.statistikbanken.dk](http://www.statistikbanken.dk)).

<sup>b</sup> Data source: Children looked after in England (including adoption and care leavers) year ending 31 March 2012; London; Department for Education; 2013; Children looked after in England, year ending 31 March 2007, London; Department for Education and Schools; 2008.

and ages at placement in OHC in Denmark and England are linked to differences in the total duration throughout childhood of placement outside the birth family.

### Policy Context

An important issue for any comparative international study of out-of-home care is the different aims of the care system, which relate to the policy context, the reasons for placement, the child's age and the type of OHC. As signatories to the UN Convention on the Rights of the Child, both England and Denmark seek to ensure that if at all possible children are brought up by their parents or extended family, and the first option if children need to come into care is to return them to the family as soon as this can be safely achieved.

Our data show that, in following these principles, England and Denmark use the care system in different ways, and at different times, for different groups of children. In this context, the hypothesis that Denmark has high rates of OHC for teenagers because of problems built up due to low rates of OHC for young children seems unlikely. Recent policy documents indicate that Danish policy is moving closer to that in England. These are explored with respect to several high income countries including Denmark and England in the chapters edited by Gilbert et al. (2011). More specifically, Danish policy developments over recent years have been characterised by a movement towards increased emphasis on measurable goals, early intervention, increased family responsibility, and increased specialisation. This is a movement away from a so-called “child and family orientation” that emphasises voluntary partnership with families to a “non-intervention” ideology emphasising the protection of family privacy and rights (Hestbæk, 2011; Kristensen, Kristiansen, & Jensen, 2010).

These changes in Denmark would be expected to increase use of OHC, whereas the reverse is observed in this study – especially for infants and toddlers. This tendency is also found in other studies (Fallesen et al., n.d.; Ubbesen et al., 2013). A possible explanation may be that the period from 1980 to the present decade has been characterised by increased decentralisation of decision-making and financial responsibility from the state and regional authorities to the local municipalities (Bryderup, 2005; Ministry of Finance, 2010). As placements in OHC – especially residential care – are high cost services (Hestbæk, 2011), there has been financial pressure to avoid placing children in OHC. Nevertheless, the high use of OHC for older children in Denmark suggests that OHC continues to be viewed as an appropriate response to family distress as part of a package of family support services.

Legislation in England also recognises OHC as a family support measure for children in need, but in practice, OHC is increasingly viewed as a child protection measure to be used only in cases of abuse or neglect. For example, government guidance states ‘A desire to think the best of adults and to hope they can overcome their difficulties should not trump the need to rescue children from chaotic, neglectful and abusive homes’ (HM Government, 2013). In an influential summary of research on services to children maltreated in their early years made available to all family court judges Brown and Ward (2012) emphasise the importance of planning for long term alternative family placement as early as possible if reunification cannot be safely and quickly achieved. England is one of the few countries (along with the USA and Canada), where exit from care can be by adoption sanctioned by the courts against the wishes of parents. The possibility of early exit from care via adoption has meant that a rise in entries of young children to care may be consistent with a generally negative view of the potential benefits of OHC, as care is a transition to adoption, which is viewed as more permanent and effective. The near three-times higher rate of OHC placement of infants in England compared with Denmark in the most recent cohort lends some support for this hypothesis.

Possible explanations for a decreasing but still higher overall likelihood of Danish children experiencing OHC (especially as they move into adolescence) and a rising likelihood of English children entering OHC when under the age of five are to be found in policy documents and research and practice publications. In general Danish policy research indicates a high level of expenditure in Denmark on universal services that support parents in caring for their children (Ploug, 2012). In addition, historically there has been a high level of confidence in Denmark in the ability of residential and foster care services to assist families struggling with relationship difficulties or the challenging behaviour or criminality of teenagers (Betænknings 1212, 1990; Bryderup, 2005). This can be contrasted with the above described widely held view in England of care as a generally unhelpful intervention to be used only when unavoidable and for as short a time as possible. Further it can be contrasted

with a different attitude towards adoption as a route out of OHC, which is almost never used in Denmark. Hence, in broader contextual terms the two countries have different attitudes to family integrity and willingness to sanction state intervention in family life.

## Conclusion

Our results illustrate the importance of detailed analyses of age-specific cumulative incidence rates of entry into OHC across the whole child life course that take into account changes over time. We demonstrate that increasing rates of placement in care across the age bands are not inevitable. Further analysis is required to examine policy and service drivers for the diverging trends and to quantify the impacts of changes in the use of OHC on other universal or targeted services such as health, welfare and education services and on children and families. Our results pose further key questions for policy. Is the decline in OHC in Denmark associated with a net reduction in costs across all child and family services? Is the increase in rates of young children entering care in England, and early placement for adoption for an important minority of them, associated with improved long-term child welfare outcomes and lower long term overall costs? Does the Danish approach of providing OHC placements for teenagers help to avoid total family breakdown and make parental support as the teenager moves into adulthood more likely? There is now a considerable number of sound process and outcome studies (using longitudinal, quantitative and qualitative methodologies) on children who enter care but there are many methodological, ethical and data access problems to be overcome by researchers evaluating policies in a single country. This is even more the case when seeking to compare policy, practice and outcomes across national boundaries.

## Acknowledgements

We are grateful to Arturo Gonzalez-Izquierdo for data support. The Department of Education supplied the data but had no role in the study.

## References

- Andersen, S. H., & Fallesen, P. (2010). *Efter anbringelsen*. In S. H. Andersen (Ed.), *Når man anbringer et barn* (pp. 164–179). Odense: Syddansk Universitetsforlag.
- Ankestyrelsen. (2013). *Anbringelsesstatistik 2012*. København K: Ankestyrelsen.
- Belsky, J. (1980). Child maltreatment – An ecological integration. *American Psychologist*, 35(4), 320–335.
- Betænkning 1212. (1990). *Betænkning om de retlige rammer for indsatsen over for børn og unge*. Copenhagen: Statens Informationstjeneste.
- Biehal, N., Ellison, S., Baker, C., & Sinclair, I. (2010). *Belonging and permanence: Outcomes in long-term foster care and adoption*. London: BAAF.
- Bronfenbrenner, U. (1977). Towards an experimental ecology of human development. *American Psychologist*, 32(7), 513–531.
- Brown, R., & Ward, H. (2012). *Decision-making within a child's timeframe: An overview of current research evidence for family justice professionals concerning child development and the impact of maltreatment* (No. 16). Loughborough: Childhood Wellbeing Research Centre.
- Bryderup, I. M. (2005). *Børnelove og socialpædagogik - gennem hundrede år*. Århus: KLIM.
- Bullock, R., Courtney, M. E., Parker, R., Sinclair, I., & Thoburn, J. (2006). Can the corporate state parent? *Children and Youth Services Review*, 28(11), 1344–1358. <http://dx.doi.org/10.1016/j.childyouth.2006.02.004>
- Chamberlain, P. (2003). The Oregon multidimensional treatment foster care model: Features, outcomes, and progress in dissemination. *Cognitive and Behavioral Practice*, 10, 303–312.
- Chicchetti, D. (2006). Development and psychopathology. In D. Cicchetti, & D. J. Cohen (Eds.), *Developmental psychopathology – Vol 1 – Theory and method*. New Jersey: John Wiley and Sons.
- Chicchetti, D., & Valentino, K. (2006). An ecological–transactional perspective on child maltreatment: Failure of the average expectable environment and its influence on child development. In C. J. Donald, & D. Cicchetti (Eds.), *Developmental psychopathology – Vol 3 – Risk disorder and adaptation* (pp. 129–201). New Jersey: John Wiley and Sons.
- Department for Education. (2012). *Children looked after by local authorities in England, including adoption*.
- Department for Education. (2014). *Data, research and statistics*.
- Egelund, T., & Vitus, K. (2009). Breakdown of care: The case of Danish teenage placements. *International Journal of Social Welfare*, 18(1), 45–56. <http://dx.doi.org/10.1111/j.1468-2397.2008.00564.x>
- Elder, G. (2006). The life course and human development. In R. M. Lerner (Ed.), *Handbook of child psychology* (6th ed., pp. 665–715). New Jersey: John Wiley & Sons.
- Fallesen, P., Emanuel, N., & Wilderman, C. (n.d.). *Cumulative risks of foster care placement for Danish children*.
- Flouri, E. (2008). Contextual risk and child psychopathology. *Child Abuse & Neglect*, 32(10), 913–917. <http://dx.doi.org/10.1016/j.chiabu.2007.12.008>
- Frame, L. (2002). Maltreatment reports and placement outcomes for infants and toddlers in out-of-home care. *Infant Mental Health Journal*, 23(5), 517–540. <http://dx.doi.org/10.1002/imhj.10031>
- Franzen, E., Vinnerljung, B., & Hjern, A. (2008). The epidemiology of out-of-home care for children and youth: A national cohort study. *British Journal of Social Work*, 38(6), 1043–1059. <http://dx.doi.org/10.1093/bjsw/bcl380>
- Gilbert, N., Parton, N., & Skivenes, M. (2011). *Child protection systems. International trends and orientations*. New York: Oxford University Press.
- Gilbert, R., Fluke, J., O'Donnell, M., Gonzalez-Izquierdo, A., Brownell, M., Gulliver, P., & Sidebotham, P. (2012). Child maltreatment: Variation in trends and policies in six developed countries. *Lancet*, 379(9817), 758–772. [http://dx.doi.org/10.1016/S0140-6736\(11\)61087-8](http://dx.doi.org/10.1016/S0140-6736(11)61087-8)
- Hestbæk, A.-D. (2011). *Denmark: A child welfare system under reframing*. In N. Gilbert, N. Parton, & M. Skivenes (Eds.), *Child protection systems – International trends and orientations* (p. 273). New York: Oxford University Press.
- HM Government. (2013). *Working together to safeguard children*. Manchester.
- Khoo, E., Skoog, V., & Dalin, R. (2012). In and out of care. A profile and analysis of children in the out-of-home care system in Sweden. *Children and Youth Services Review*, 34(5), 900–907. <http://dx.doi.org/10.1016/j.childyouth.2012.01.019>
- Kristensen, O. S., Kristiansen, B. L., & Jensen, E. N. (2010). Retssikkerhed og rationalitet i anbringelsessager. *Retfaerd*, 3(33), 43–59.
- Ministry of Finance. (2010). *Analyse af takstudviklingen og incitamentsstrukturer på det specialiserede socialområde*. København: Finansministeriet.
- Munro, E. (2005). Improving practice: Child protection as a systems problem. *Children and Youth Services Review*, 27(4), 375–391. <http://dx.doi.org/10.1016/j.childyouth.2004.11.006>



- Patton, G. C., Coffey, C., Cappa, C., Currie, D., Riley, L., Gore, F., & Ferguson, J. (2012). Health of the world's adolescents: A synthesis of internationally comparable data. *Lancet*, 379(9826), 1665–1675. [http://dx.doi.org/10.1016/S0140-6736\(12\)60203-7](http://dx.doi.org/10.1016/S0140-6736(12)60203-7)
- Ploug, N. (2012). The Nordic child care regime—History, development and challenges. *Children and Youth Services Review*, 34(3), 517–522. <http://dx.doi.org/10.1016/j.childyouth.2011.10.019>
- Rushton, A. (2004). A scoping and scanning review of research on the adoption of children placed from public care. *Clinical Child Psychology and Psychiatry*, 9(89), 9–106.
- Sameroff, A. J. (2000). Developmental systems and psychopathology. *Development and Psychopathology*, 12(3), 297–312. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/11014740>
- Sammut, J. (2011). *Do not damage and disturb: On child protection failures and the pressure on out of home care in Australia*. Australia: Centre for Independent Studies.
- Schofield, G., & Beek, M. (2009). Growing up in foster care: Providing a secure base through adolescence. *Child & Family Social Work*, 14(3), 255–266. <http://dx.doi.org/10.1111/j.1365-2206.2008.00592.x>
- Sethi, D., Barnekow, V., Mitis, F., Gilbert, R., & Ulvestad, K. F. (2013). Tackling child maltreatment in the European region: Opportunities for action. In D. Sethi, V. Barnekow, F. Mitis, R. Gilbert, & K. F. Ulvestad (Eds.), *European report on preventing child maltreatment* (pp. 83–99). Copenhagen: WHO.
- Statistics Denmark. (2013). *Folk2*.
- Statistics O. for national. (2013). *Population estimates*.
- Thoburn, J. (2010a). Achieving safety, stability and belonging for children in out-of-home care: The search for what works across national boundaries. *International Journal of Child and Family Welfare*, 1(2), 34–49.
- Thoburn, J. (2010b). Achieving safety, stability and belonging for children in out-of-home care: The search for what works across national boundaries. *International Journal of Child and Family Welfare*, 13, 34–48.
- Thoburn, J. (2013). Services for vulnerable and maltreated children. In *European child health services and systems: Lessons without borders*. Maidenhead, England: Open University Press.
- Thoburn, J., Chand, A., & Procter, J. (2005). *Child welfare services for minority ethnic families: The research reviewed*. London: Jessica Kingsley Publishers.
- Thoburn, J., & Courtney, M. E. (2011). A guide through the knowledge base on children in out-of-home care. *Journal of Children's Services*, 6(4), 210–227.
- Thoburn, J., Robinson, J., & Anderson, B. (2012). *Returning children home from public care*. London: SCIE (Social Care Institute for Excellence).
- Tilbury, C., & Osmond, J. (2006). Permanency planning in foster care: A research review and guidelines for practitioners. *Australian Social Work*, 59(3), 265–280. <http://dx.doi.org/10.1080/03124070600833055>
- Tilbury, C., & Thoburn, J. (2008). Children in out-of-home care in Australia – International comparisons. *Children Australia*, 33(3), 5–12.
- Ubbesen, M. B. (2013). *The Danish child protection system in light of register-based*. Aarhus University.
- Ubbesen, M. B., Petersen, L., Mortensen, P. B., & Kristensen, O. S. (2012). Out of care and into care again: A Danish register-based study of children placed in out-of-home care before their third birthday. *Children and Youth Services Review*, 34(11), 2147–2155. <http://dx.doi.org/10.1016/j.childyouth.2012.07.014>
- Ubbesen, M. B., Petersen, L., Mortensen, P. B., & Kristensen, O. S. (2013). Temporal stability of entries and predictors for entry into out-of-home care before the third birthday: A Danish population-based study of entries from 1981 to 2008. *Children and Youth Services Review*, 35(9), 1526–1535. <http://dx.doi.org/10.1016/j.childyouth.2013.05.020>
- Vinnerljung, B., & Hjern, A. (2011). Cognitive, educational and self-support outcomes of long-term foster care versus adoption. A Swedish national cohort study. *Children and Youth Services Review*, 33(10), 1902–1910. <http://dx.doi.org/10.1016/j.childyouth.2011.05.016>
- Vinnerljung, B., Hjern, A., & Lindblad, F. (2006). Suicide attempts and severe psychiatric morbidity among former child welfare clients – A national study. *Journal of Child Psychology and Psychiatry*, 47(7), 723–733.
- Vinnerljung, B., Hjern, A., Weitof, G. R., Franzén, E., & Estrada, F. (2007). Children and young people at risk (chap. 7). *International Journal of Social Welfare*, 16(s1), S163–S202. <http://dx.doi.org/10.1111/j.1468-2397.2007.00520.x>
- Vinnerljung, B., & Ribe, M. (2001). Mortality after care among young adult foster children in Sweden. *International Journal of Social Welfare*, 10, 164–173.
- Vinnerljung, B., & Sallnäs, M. (2008). Into adulthood: A follow-up study of 718 young people who were placed in out-of-home care during their teens. *Child & Family Social Work*, 13, 144–155.
- Vinnerljung, B., Sundell, K., Löfholm, C. A., & Humlesjö, E. (2006). Former Stockholm child protection cases as young adults: Do outcomes differ between those that received services and those that did not? *Children and Youth Services Review*, 28, 59–77.
- Vinnerljung, B., Öman, M., & Gunnarson, T. (2005). Educational attainments of former child welfare clients – A Swedish national cohort study. *International Journal of Social Welfare*, 14, 265–276.