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What is needed for children and their families in ECEC provision to combat inequalities and social exclusion

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What works for the children and their families

- A growing literature has considered the impact of early child care not only on mothers' participation in the labor market
- but also on child cognitive and non-cognitive outcomes,
- It started in the US, where several programs for children from low-income households have been enacted and evaluated (Perry preschool, Carolina Abecedarium)

What works for the children and their families

Child outcomes (school, behavioral, health) are considered the output of a production function in which the inputs come from:

- families
- schools
- teachers
- peers

What works for the children and their families

Main results (Heckman and co-authors and Todd and Wolpin 2003, 2007):

- The effects of investments in children are largely determined early in life
- Especially at this very young age, **mothers' as well as fathers' time** are the most valuable inputs
- When both parents work, formal child care provides a good substitute

What works for the children and their families

- This is especially true for children from disadvantaged environments who receive less early investments from their families
- **Early** interventions are estimated to have higher rates of return (7-10% for year) than **later** interventions
- Their returns last for a longer period over the life cycle and avoid the costs of remedial policies

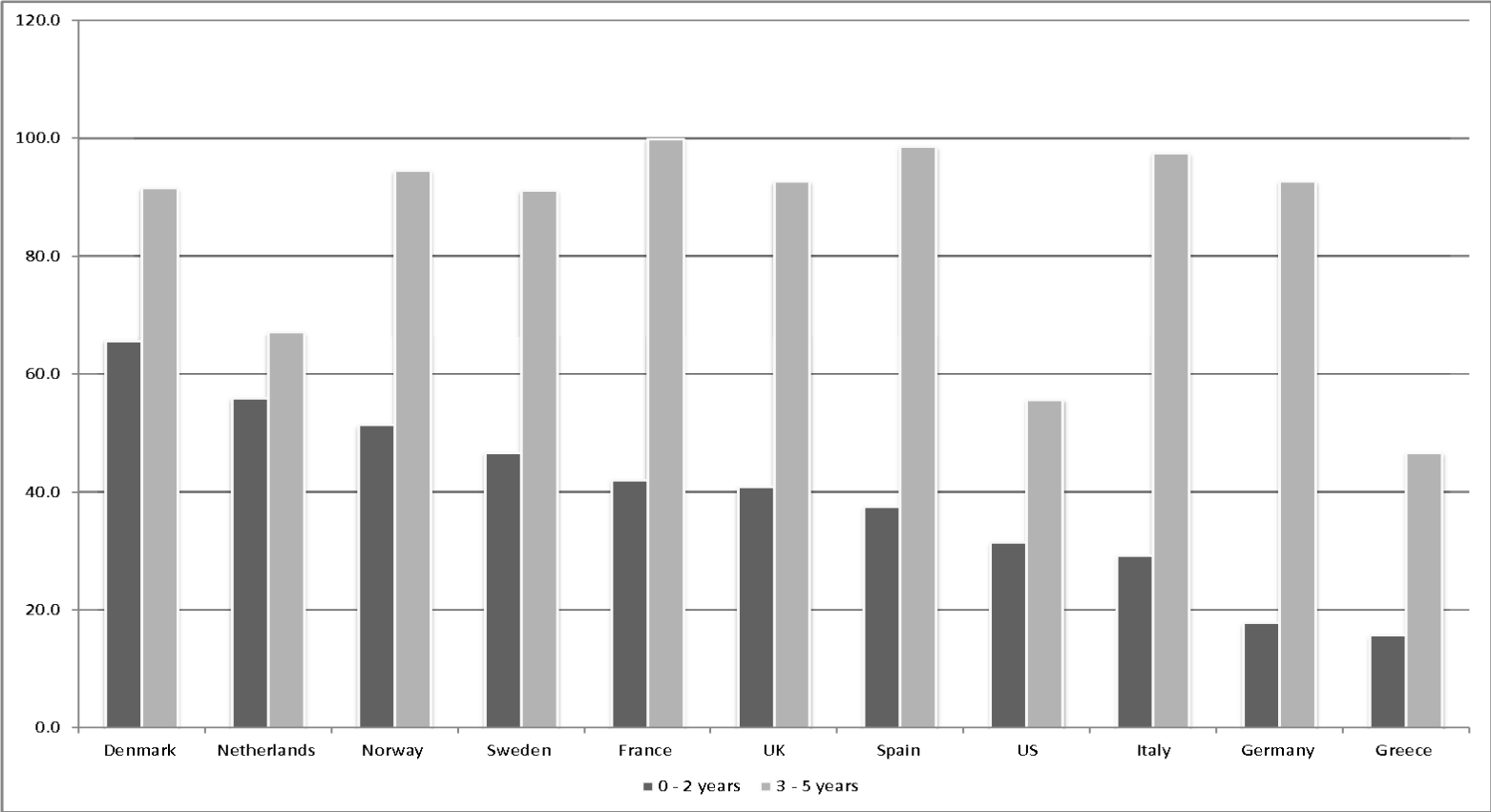
What works for the children and their families

- **Cognitive** and **non-cognitive** outcomes are both important
 - Non-cognitive can affect cognitive outcomes
 - Motivation, self confidence and perseverance can affect school performance and later outcomes

Cross country differences

- We now provide a discussion of empirical results from different countries with different characteristics of child care.
- Still strong differences in the supply of formal child care across countries:
- formal childcare 0-2 is higher in the North European countries than in the US, UK, and South Europe (while 3-5 is quite high everywhere)

Figure 1. Enrollment in formal child care varies by age and country, 2008



US and UK

- In the US and UK, child care is very heterogeneous, mostly private and informal
- In these countries several data sets which allow us to follow children over time are available.

US and UK

- In the US, the Child Development Survey is a supplement of the PSID and provides detailed information on time use of parents and children in 1997, 2003 and 2007.
- In the UK, the Millennium Cohort Survey follows children from birth (year 2000) to now, every 2 years.

US

Most empirical studies in the US compare formal and informal care and show that:

- formal childcare can provide positive effects that are longer lasting for **disadvantaged children**
- while informal childcare sometimes have been found to have adverse effects (Bernal and Keane 2011, Waldfogel et al 2001)

UK

The results for the UK also show that

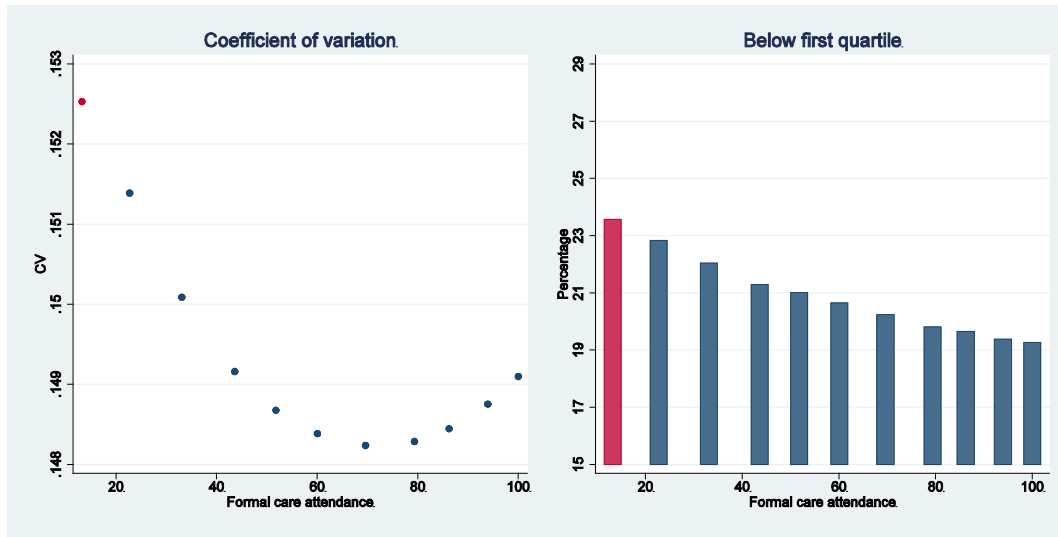
- formal care (less than 3) has **greater effect** on child outcomes than does informal care
- Formal is more effective for outcomes as School Readiness at age 3, Naming Vocabulary score at age 5 and Number Skills at age 7
- These effects are stronger for children from disadvantaged backgrounds

UK

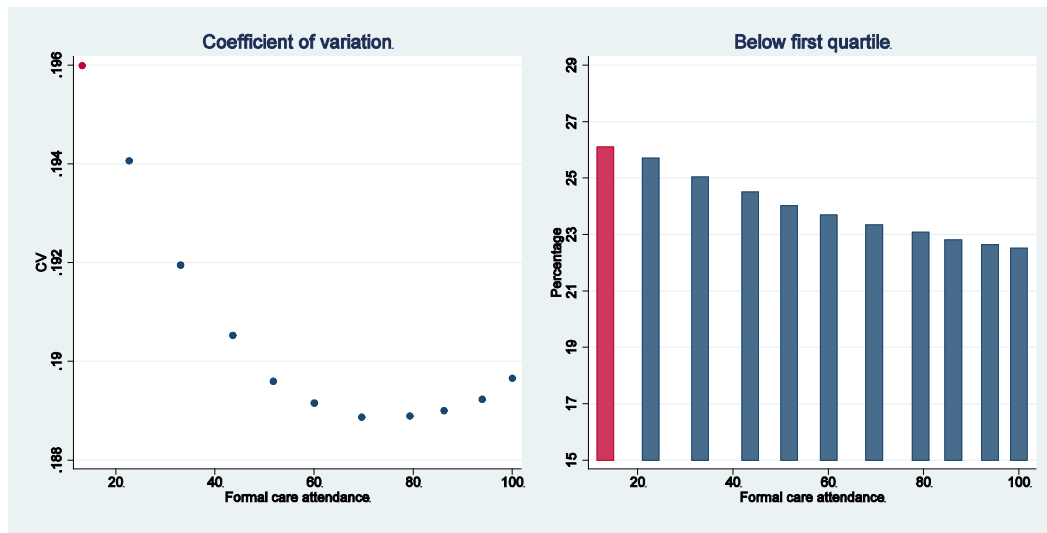
A simulation of policies introducing formal child care for all children younger than 3 shows

- Reduction of the proportion of children with low test scores
- Reduction in the dispersion of cognitive outcomes among children of lower income
- Formal care contributes to reduce inequalities among children (Del Boca, Piazzalunga, Pronzato 2016)

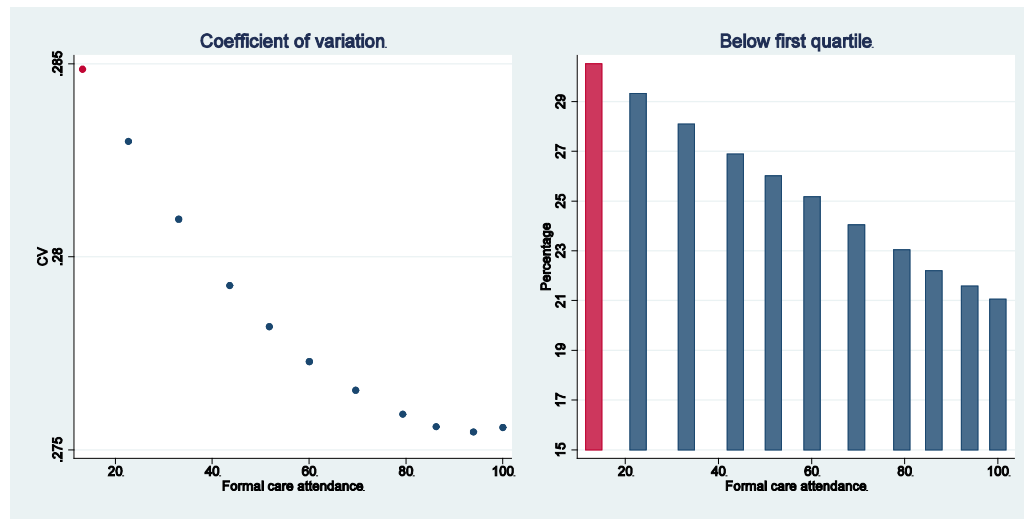
School Readiness at age 3



Naming vocabulary age 5



Number skills at age 7



Northern and Southern Europe

- In European countries, formal child care is mainly public and more homogenous
- Most analyses find a **positive** impact in areas where public child care is more widely available and higher quality.
- Results from Norway and Denmark where supply of public childcare 0-2 is higher than other countries

Northern Europe

- Denmark offers the largest, universal, and high quality formal child care system.
- A comparison of non-cognitive outcomes for children in formal (municipal-regulated) preschool and informal childcare show that
 - Preschool outperforms informal child care, with stronger results **for boys of low-educated mothers**.
 - It increases the language score and reduces non cognitive problems (Datta-Gupta and Simonsen, 2010)

Northern Europe

- Norway is also characterized by high availability/high quality childcare.
- A policy introducing an increase in child care supply had shown strong and **positive** impacts on long term outcomes (as years of education and college attendance, adult earnings)
 - Stronger effects for children of **low-educated mothers**
 - the effect is significant only for children in the lower part of the income distribution (Havnes and Mogstad, 2009 and 2010)

Southern and Central Europe

In Italy, (municipal) child care quality is high, but availability is low especially in the Southern regions

- INVALSI data provide the only ongoing national survey of students educational achievements in elementary and junior high school.
- Child care has **positive** effects on children's reading test scores in elementary school
- 10 percentage points increase in childcare availability is associated with an increase of 1.2 points in language test scores.
- This effect is greater in areas with rationed supply and in **disadvantaged areas** (Brilli, Del Boca, Pronzato, 2016)

Southern and Central Europe

The situation is similar in Western Germany, where high-quality formal care is available but is rationed in some parts of the country.

- formal child care has a **positive** impact on children's cognitive and non-cognitive abilities especially among low income households
- having attended child care increases the language skills by 1.141.
- The effects are stronger in centers with experienced and trained staff, indicating that **quality** matters (Felfe and Lalive, 2012)

Southern and Central Europe

Important results emerge also for immigrant children:

- The impact of child care is positive and significant on language and motor skills of immigrant children, but almost no significant effects for native children.
- suggesting a reduction in inequalities between children with native and foreign origin (Dustmann et al, 2013)

Child Care Quality

Most of the empirical studies focus more on attendance/availability than quality

- Lack of available data
- Indicators of quality e.g., student–teacher ratios and teachers’ education, are insufficient to identify and measure child care quality.
- Important indicators, such as teachers’ enthusiasm, communication skills, and dedication, are still more difficult to measure

Child Care Quality

A cross country comparison (Pisa Data) that the association between pre-primary attendance and test scores at age 15 is larger in countries with:

- Higher per-pupil spending in pre-primary education
- Larger shares of children attending pre-primary institutions
- Higher relative pay and higher levels of training of pre-primary teachers (Schuetz, 2009).

Child Care Quality

- In a new and very preliminary study:
- the high quality Reggio Emilia program has been compared with child care in other similar cities.
- child care in Reggio Emilia has earned an international reputation regarding its quality and program
- a large number of schools in several countries have been inspired by this approach.

Location of Reggio inspired schools



Quality

- The impact of having attended Reggio Emilia child care is estimated for five cohorts of different ages.
- Preliminary and descriptive results show interesting correlations with several child outcomes in elementary and high school stronger for immigrant and lower income children.
- These data will allow us to test whether quality and curricula matter.

Conclusions

- All results show that the positive association between formal child care and child outcomes
- Is **stronger** for children in more disadvantaged homes and for immigrant children
- High quality child care help to narrow the achievement gap among children, potentially **reducing inequalities** between different groups.

Policies

These results imply that:

- Policy-makers should carefully consider the influence of all the inputs when designing programs to improve children’s cognitive and non-cognitive skills.
- Encourage parents’ to spend more time with their children during early stages of development through generous parental leave **both for mothers and fathers.**
- Promote the availability and use of **affordable and high quality child care.**