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# The influence of the COVID-19 pandemic on the language learning environment, and the importance of taking age into account.

Francesca Surman

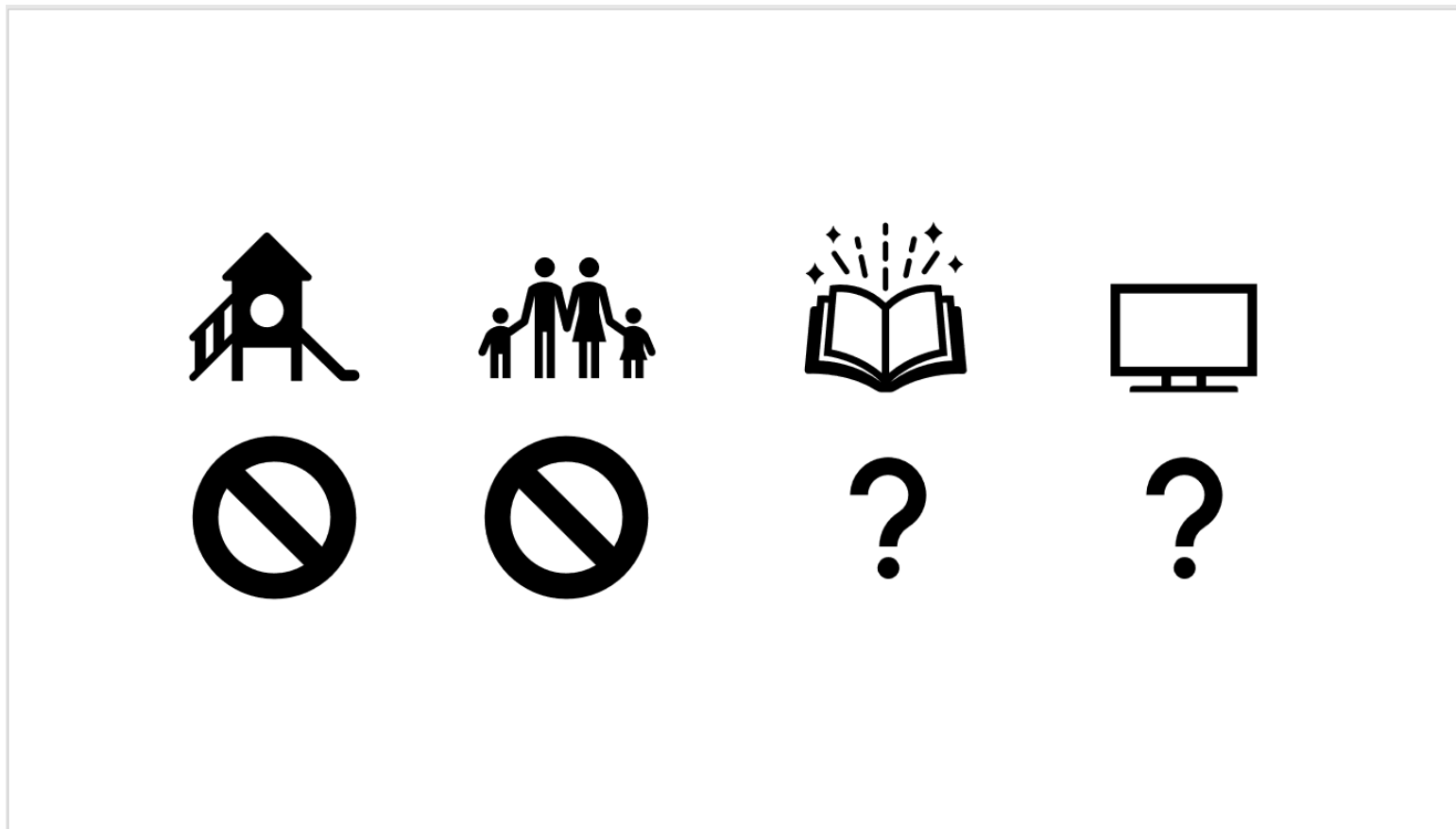
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Welcome everyone, and thank you for joining me. My name is Francesca Surman, and I am in my third year here at Oxford Brookes, studying English Language and Linguistics. Today I will be presenting my undergraduate dissertation: “The influence of the COVID-19 pandemic on the language learning environment, and the importance of taking age into account.” I’ll start by setting the scene and introducing my overarching research question, before touching on the methodology, discussing the results, and concluding with the study’s limitations, and directions for future research.

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Think back 2 years, to the beginning of the first lockdown, when you were probably stuck at home, trying to unmute yourself on zoom.

Now, imagine being in lockdown with a small child under 4. Nurseries and playgroups are closed. Your family and friends can't babysit, or visit. What do you do to keep your child occupied all day? And how do you manage it, while trying to work at the same time? Do you read with them more? Or put the TV on more?

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For parents whose children were at least 6 months old at that time, these were serious concerns. Because from this age, children might start going to nursery, and will begin taking an interest in their peers; their language development begins in earnest; and it starts to become important what caregivers do with them and what opportunities they get to meaningfully communicate.

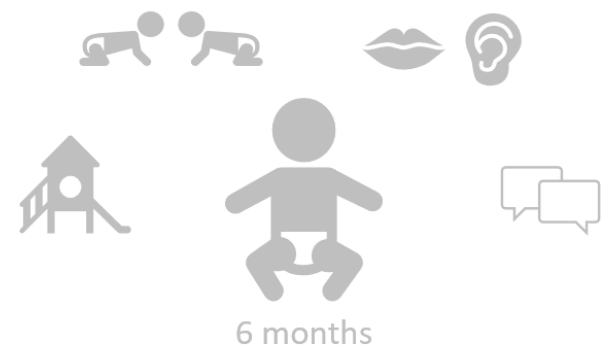
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## Existing Research

(8 months plus)



- **Less** childcare disruption 
  - **bigger** vocab  
(Davies *et al.*, 2021)
- **More** shared reading 
  - **bigger** receptive vocab  
(Kartushina *et al.*, 2022)
- **More** TV 
  - **smaller** expressive vocab  
(*ibid.*; Bergmann *et al.*, 2022)



6 months

And current research into the effect of the pandemic, on the language development of infants at least **8 months old** at the time of the first lockdown, indicates that:

- the less childcare was disrupted, the better for their vocab size;
- more shared reading with their caregivers was better for their receptive vocabulary size, that is, the number of words they understand;
- and more passive screen exposure, in other words, watching TV, was worse for their expressive vocabulary size, that is, the number of words they can say.

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## Existing Research

(8 months plus)

- **Less** childcare disruption 
- **More** shared reading 
- **More** TV 



**Younger** than 6 or 8 months?

?



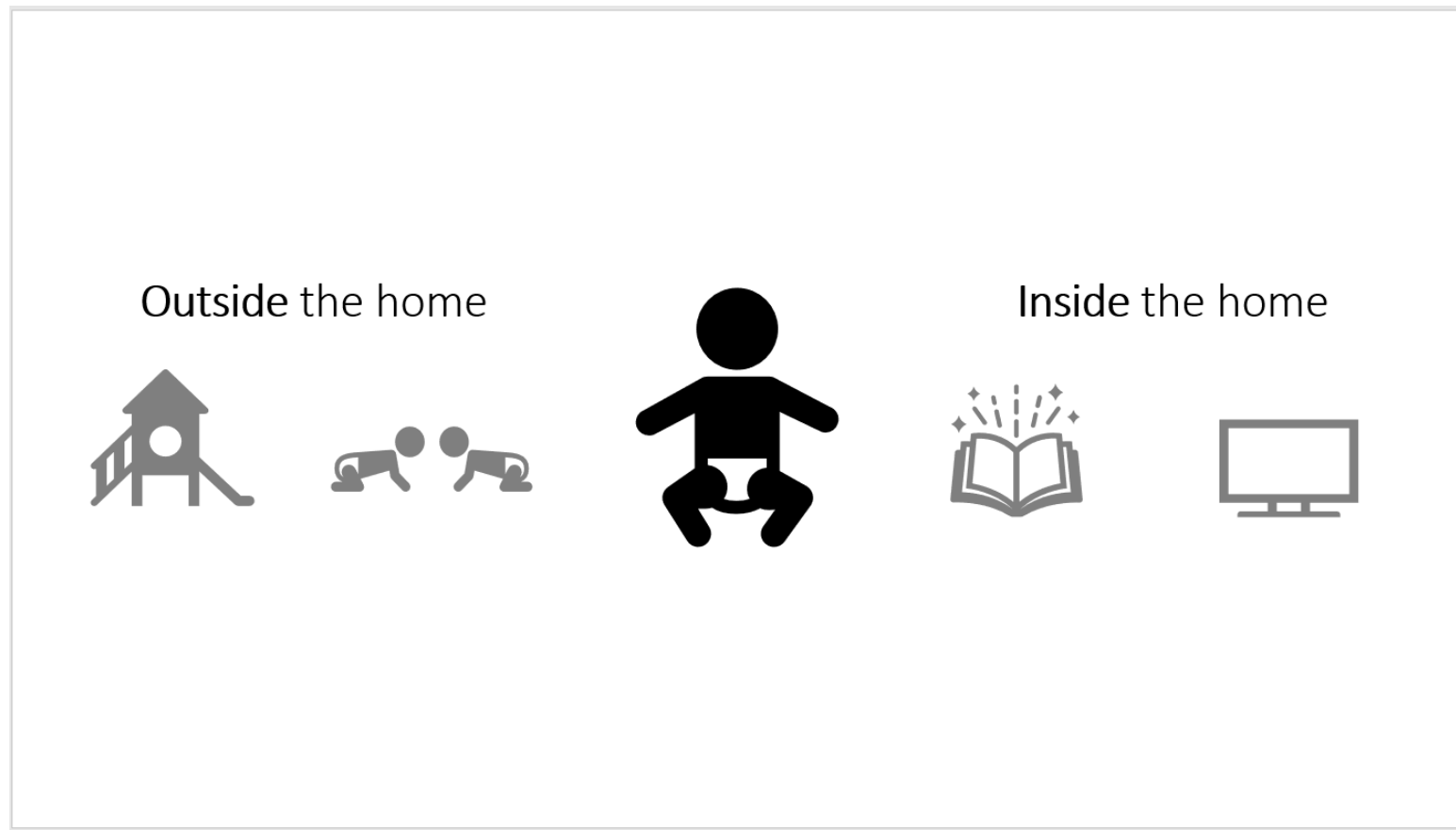
6 months



But existing studies don't tell us about children who were **younger** than 8 months old in March 2020, and those who were born during the pandemic. And back then, we weren't expecting the disruption to go on for so long; but children's learning environments, both outside and inside the home, continue to be affected even now.

How would children who have barely known anything different been affected?

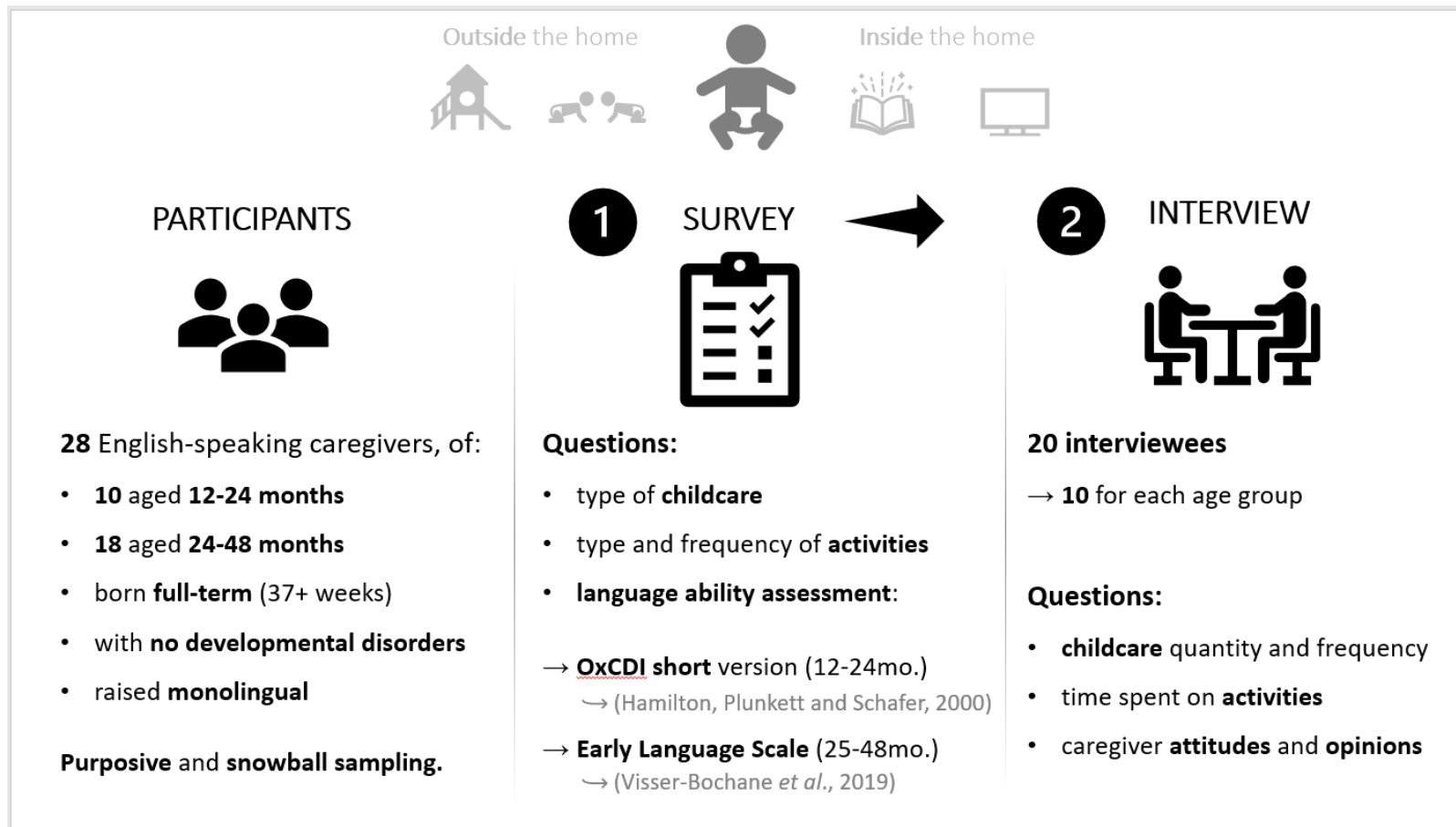
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Here's the approach I took to answering this question.

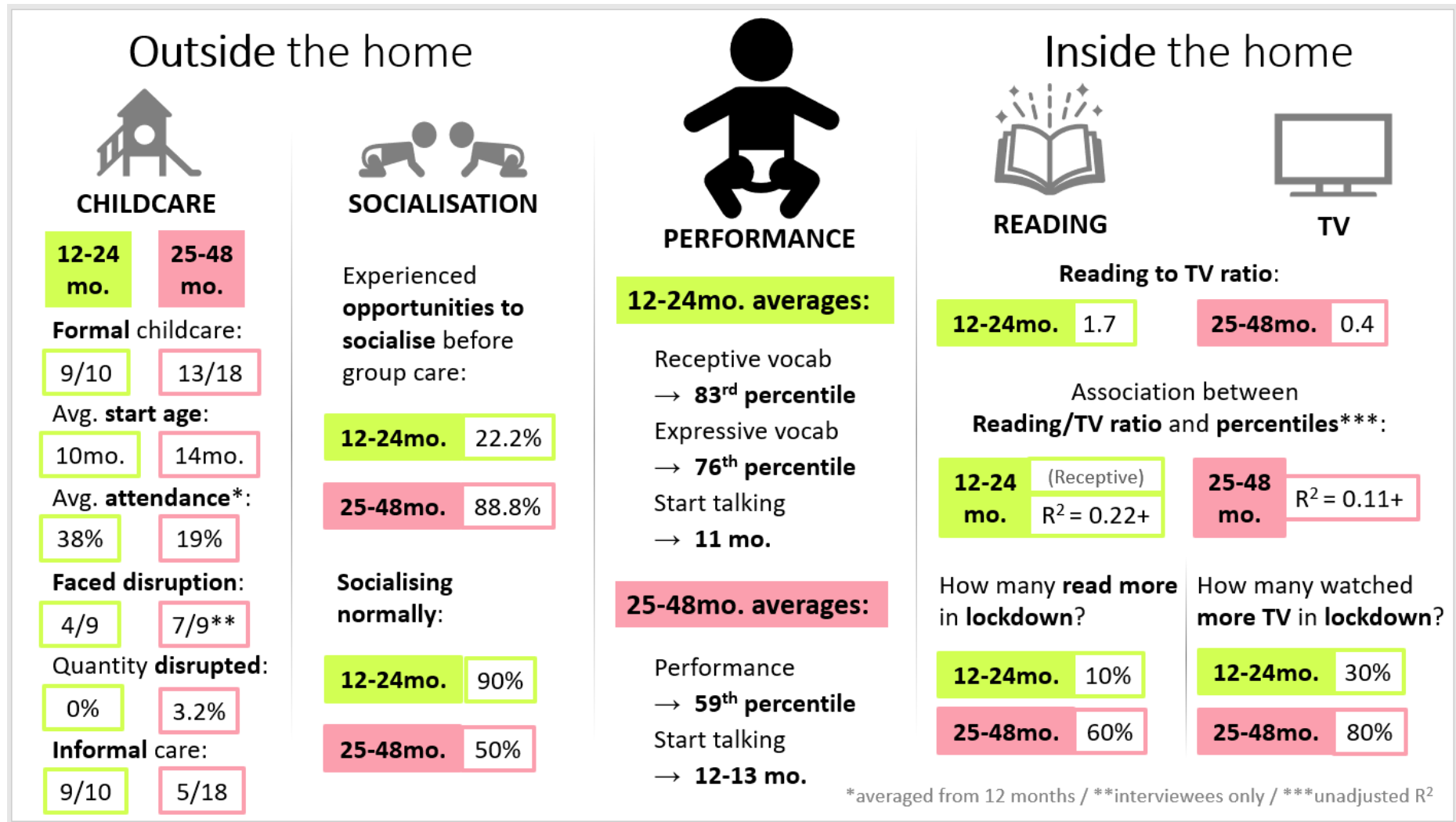
First, I divided the changes we might expect to see to children's learning environments into two rough categories: changes outside the home, referring to childcare, and opportunities for socialisation, and changes inside the home, referring to time spent on activities such as shared reading and watching TV. All of these elements are cited by the literature as having an influence on language development.

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I then distributed a short survey to caregivers of children aged 12-48 months, which collected information about their child's language ability and learning environments. And this was then followed by 20 semi-structured interviews of survey respondents, specifically, 10 caregivers of children aged 12-24 months, and 10 caregivers of children aged 25-48 months. These allowed me to collect more detail about survey responses, and ask caregivers further questions, for example, about their attitudes and opinions regarding the impact of the pandemic on their child.

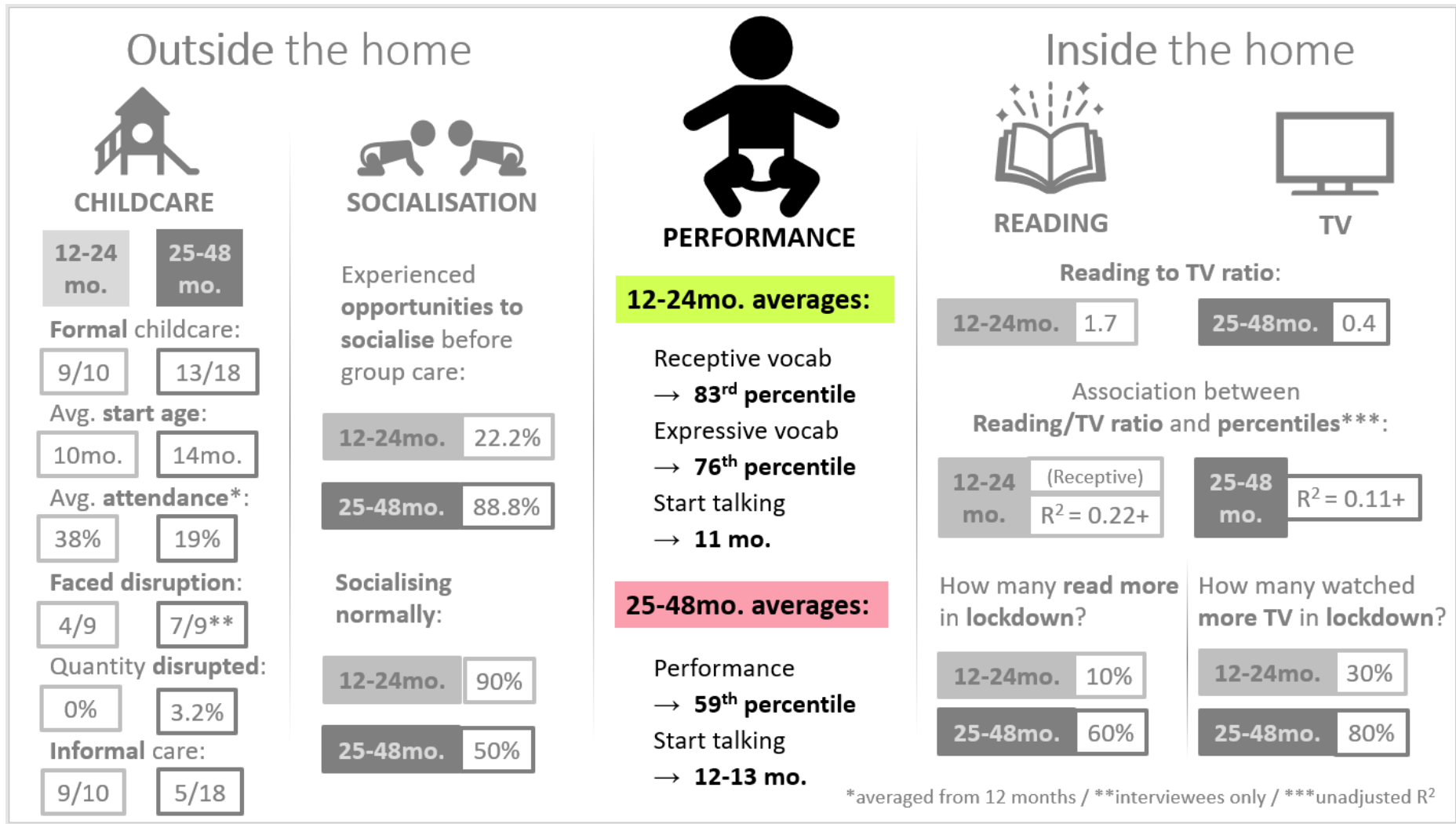
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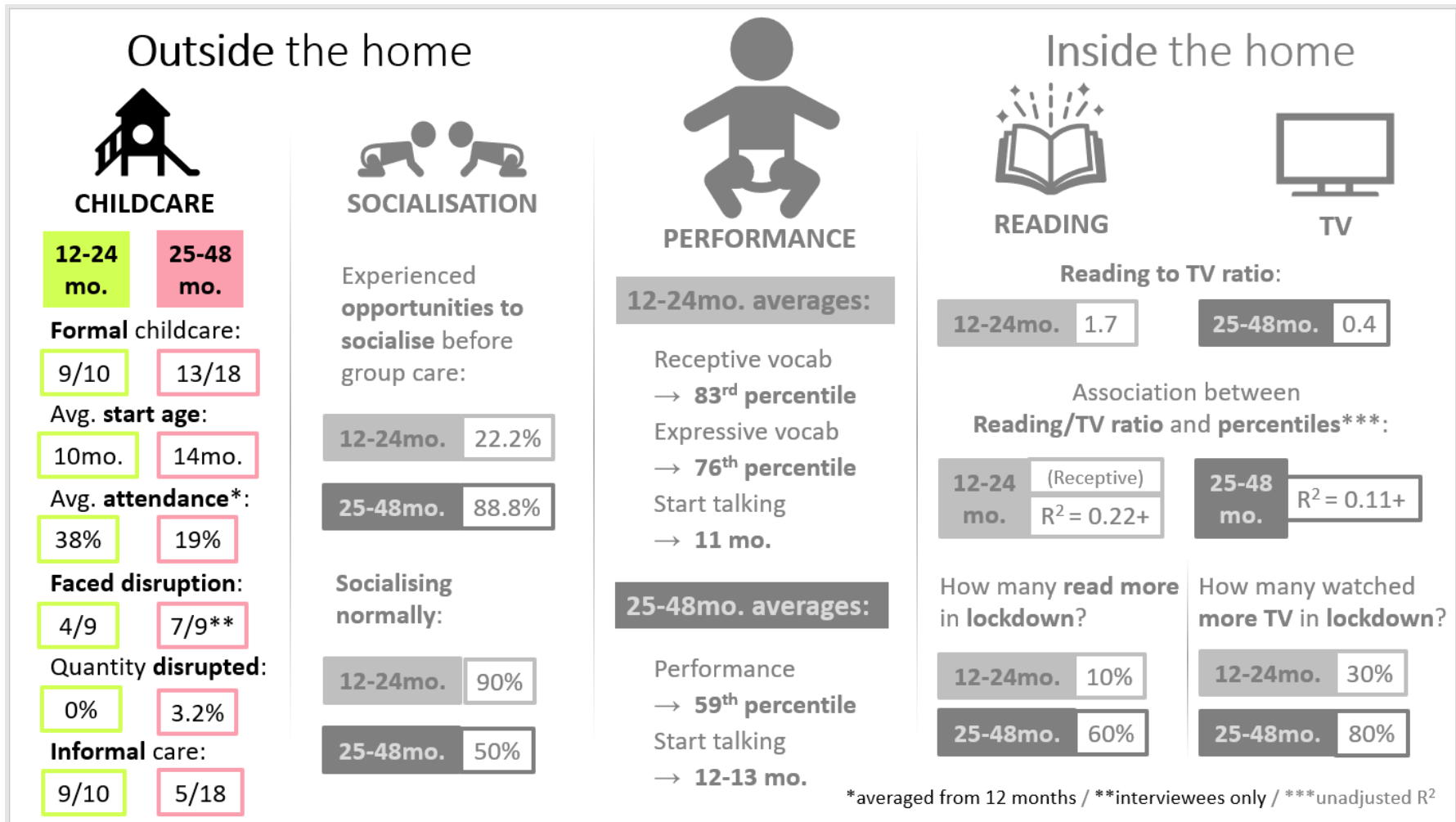
Let's move on to the results...



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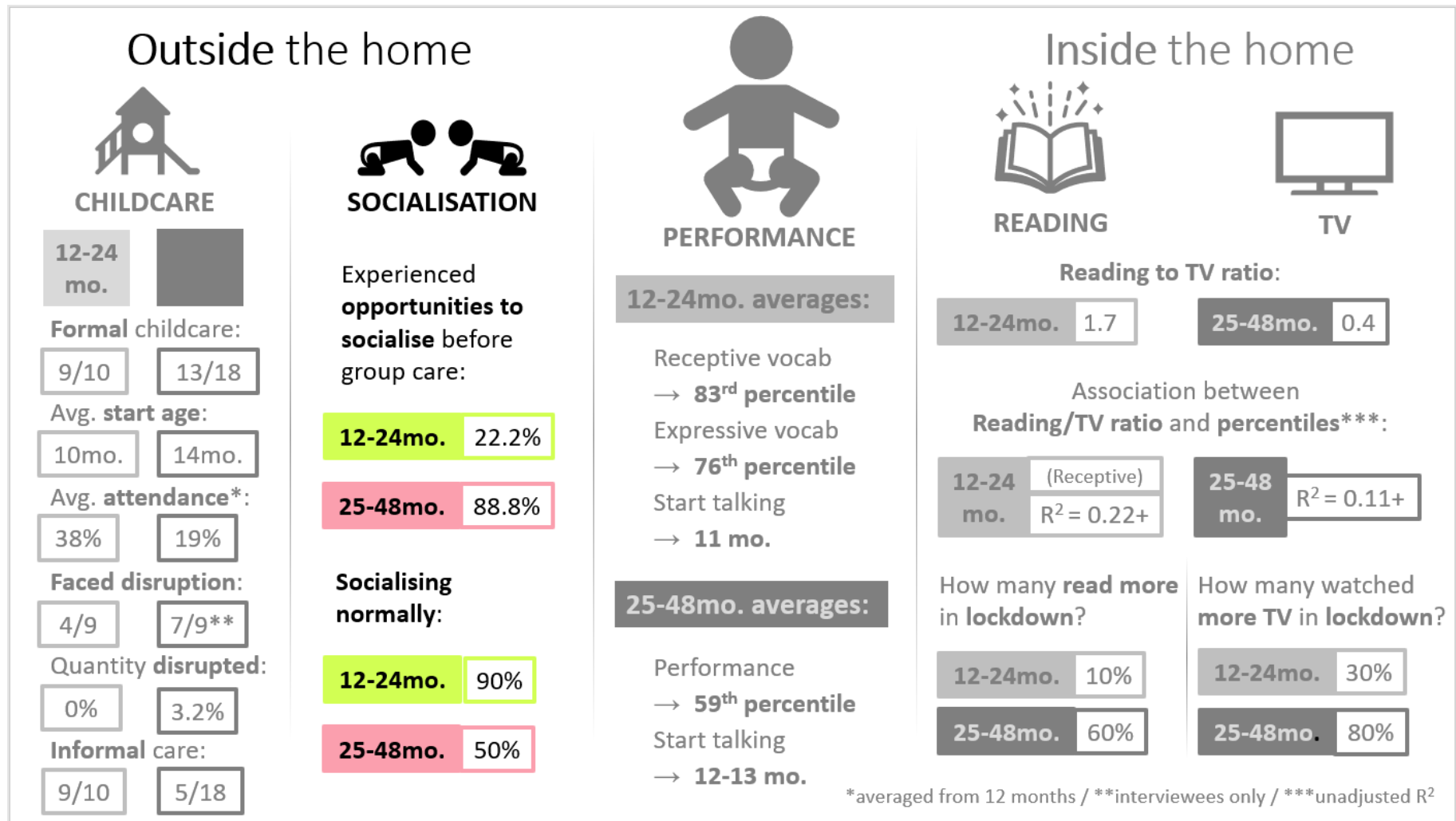


Essentially, the younger group have a higher average performance and started talking earlier.



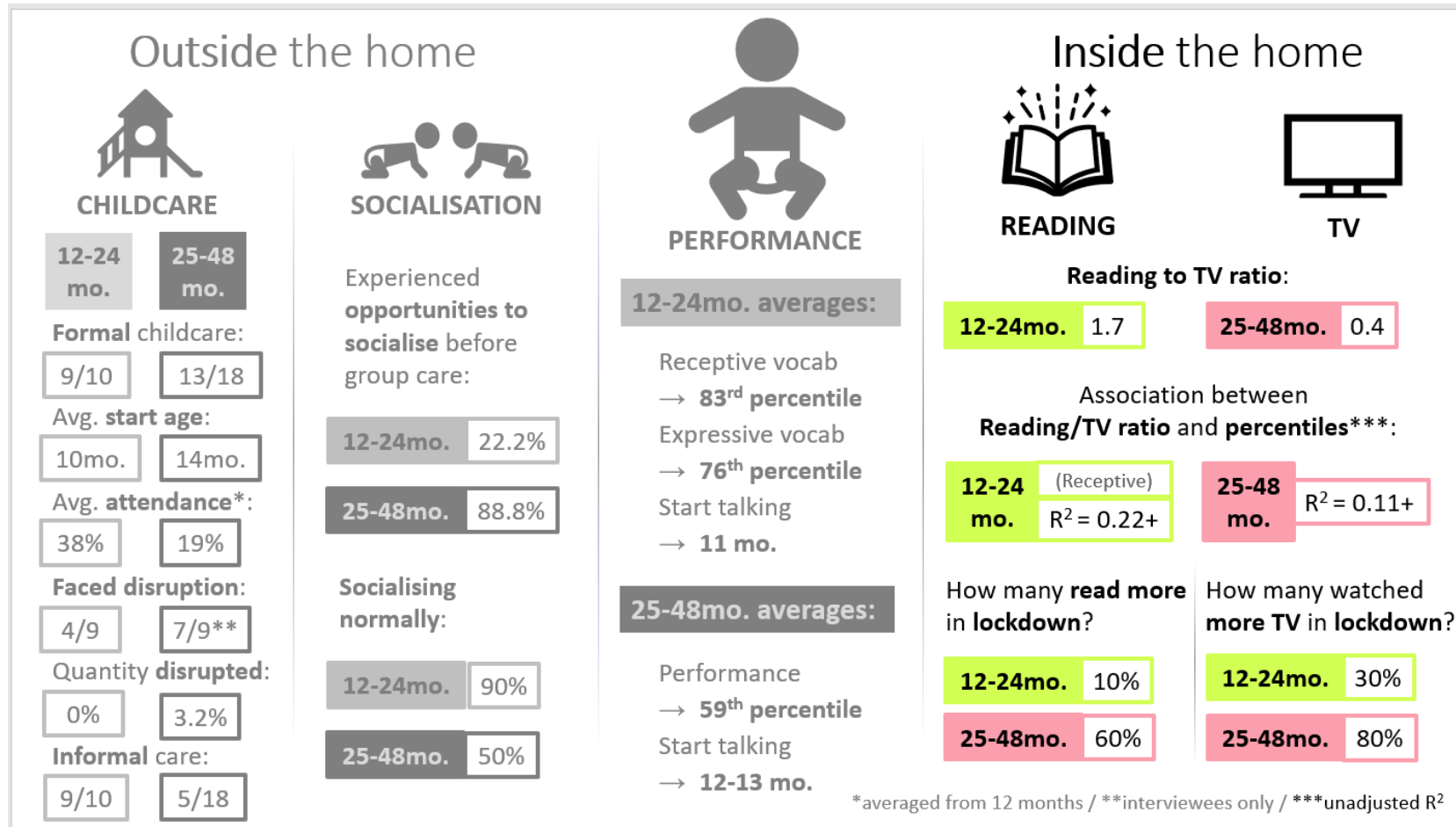
Regarding formal childcare, they have had more, they started at an earlier age, they have faced less disruption, and more of them have had informal care, which is unpaid care from a family member or friend.

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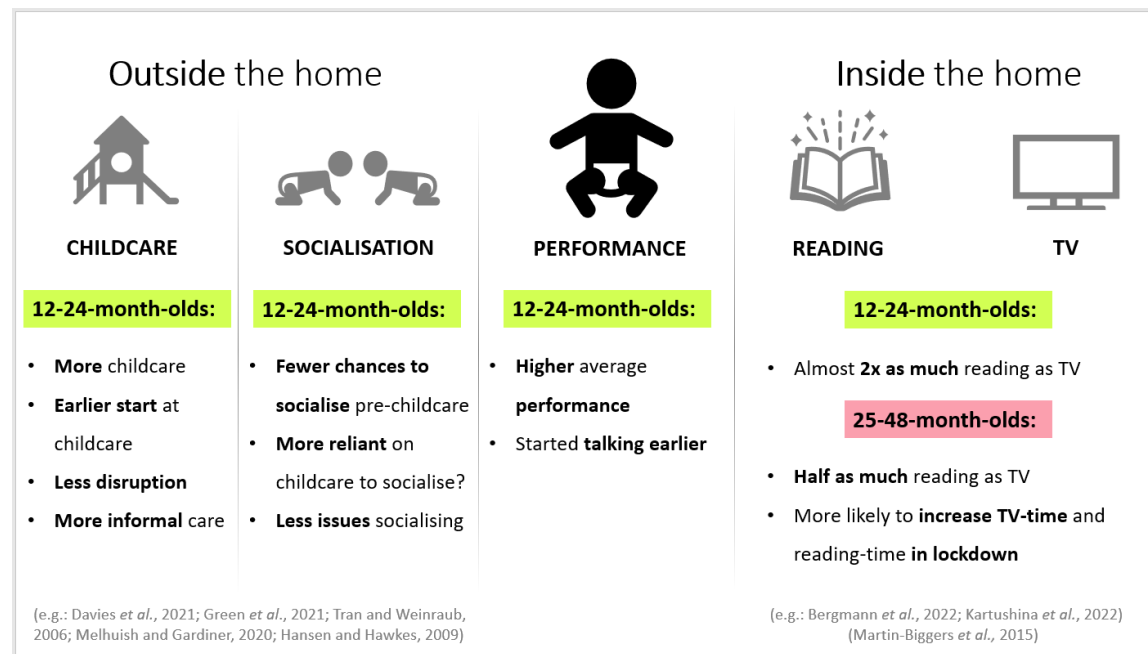
They also experienced fewer opportunities to interact with peers before group care, but were more likely to be considered as socialising normally by their parents, in that they are not shy or aggressive.

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They read twice as much as they watched TV, whilst the opposite is true for the older group; and a higher reading to TV ratio was found to associate with higher percentile scores for all ages. And caregivers of older children were more likely to report their child spending more time reading and watching TV during lockdowns, and more likely to express guilt regarding the amount of TV they allow, and were also more likely to describe relying on the TV to distract or occupy their child so that they could fulfil other responsibilities, or just have some time-out.

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The question is, could these differences between language learning environments be related to differences in language ability?


Outside the home, arguably yes: it would be consistent with the literature to suggest that the advantages of childcare are connected with the younger group's better performance. But on the other hand, starting childcare too early, and attending for too much time each week, has been found to be detrimental to socioemotional development as a child ages. Yet, whether this would be true during the pandemic is another question, because as we have seen, for many of the younger children, group care has been their only opportunity to interact with their peers. So clearly, future investigations are needed to answer this.

As for differences inside the home, yes: the results are consistent with studies demonstrating the positive link between reading and language ability, and the negative link between TV and language. But more importantly, the older group's lower reading to TV ratio shows that differences between environments are related to both age, and the pandemic: age, because caregivers of older children are more likely to have gone back to work, so might have more demands on their time, and the pandemic, because it exacerbated conditions which we know make it harder for caregivers to limit TV time.

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# Caregiver attitudes



### Disadvantages of pandemic

- child **unable to socialise** (35%)
- caregiver's **mental health** under strain (50%)
- reduced opportunities for **social learning** (20%)
- no/delayed access to **health visits** (5%)

### Advantages of pandemic

- **more time** with older **siblings** (50%)
- **more time** with **fathers** (35%)
- **privileged childcare access** due to key worker status (25%)

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### Comparison with peers (made by 80% of sample)

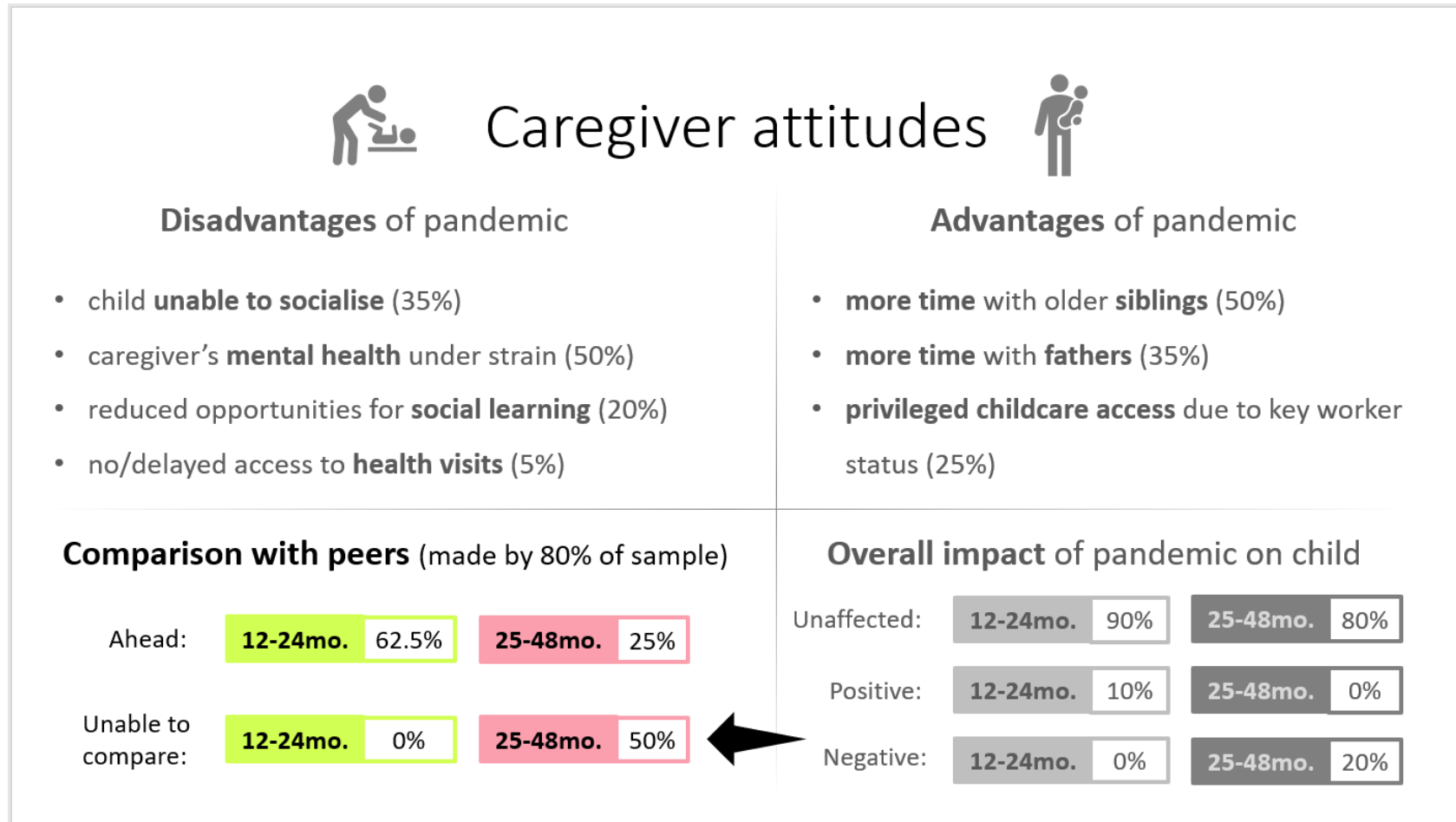
Ahead:	<div style="background-color: #90EE90; padding: 2px; display: inline-block;">12-24mo.</div> 62.5%	<div style="background-color: #FFB6C1; padding: 2px; display: inline-block;">25-48mo.</div> 25%
Unable to compare:	<div style="background-color: #90EE90; padding: 2px; display: inline-block;">12-24mo.</div> 0%	<div style="background-color: #FFB6C1; padding: 2px; display: inline-block;">25-48mo.</div> 50%

### Overall impact of pandemic on child

Unaffected:	<div style="background-color: #90EE90; padding: 2px; display: inline-block;">12-24mo.</div> 90%	<div style="background-color: #FFB6C1; padding: 2px; display: inline-block;">25-48mo.</div> 80%
Positive:	<div style="background-color: #90EE90; padding: 2px; display: inline-block;">12-24mo.</div> 10%	<div style="background-color: #FFB6C1; padding: 2px; display: inline-block;">25-48mo.</div> 0%
Negative:	<div style="background-color: #90EE90; padding: 2px; display: inline-block;">12-24mo.</div> 0%	<div style="background-color: #FFB6C1; padding: 2px; display: inline-block;">25-48mo.</div> 20%

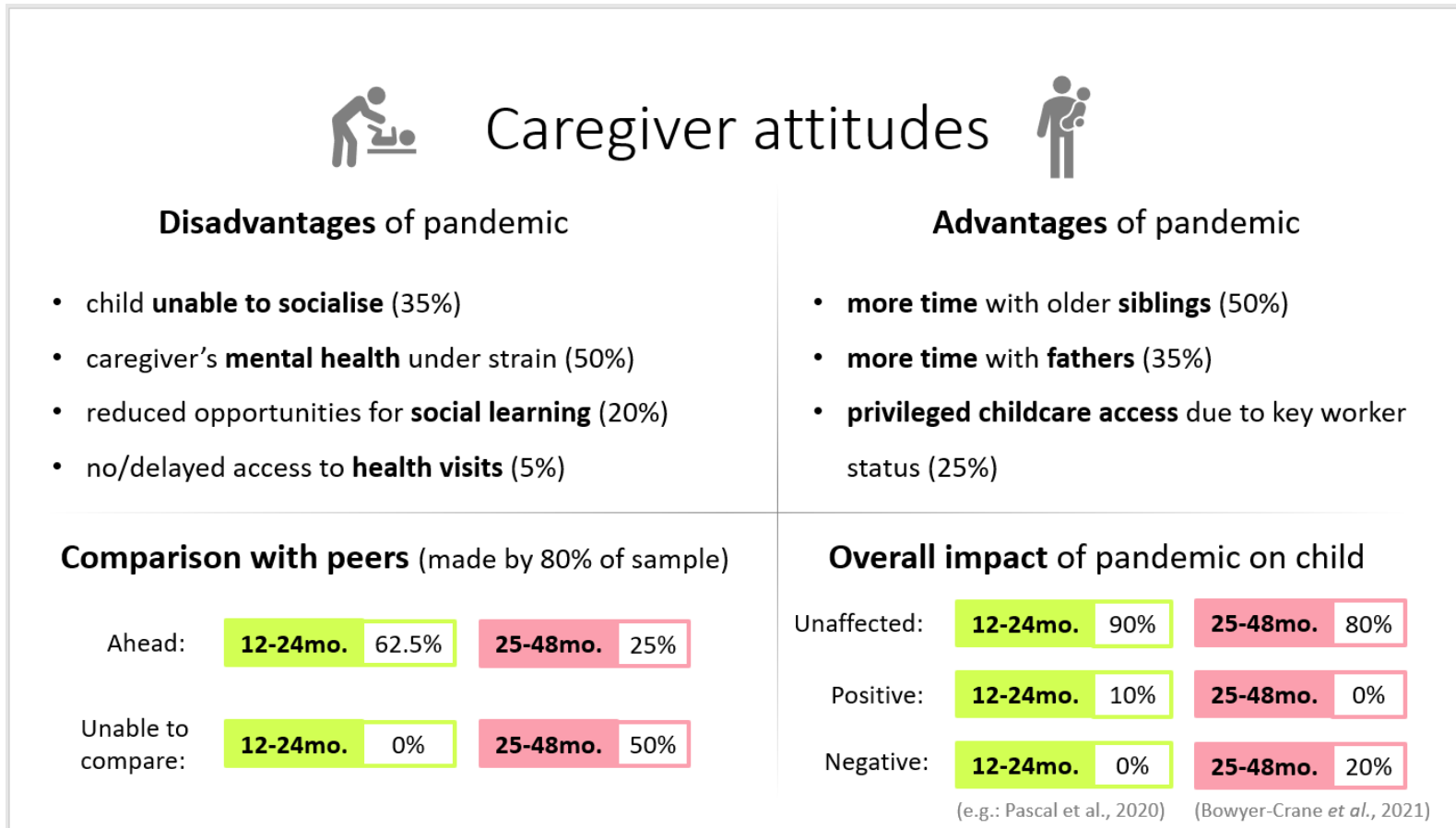
But what about caregiver attitudes? You can see here some of the pandemic's disadvantages and advantages according to interviewees.

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But I want to draw your attention to this finding: that half of the older group's caregivers were unable to say how their child's language compares to their peers. This is interesting because among their children were some of the lowest performers, but only one caregiver was aware of this. This says something about how the dearth of health visiting during the pandemic, and the limited socialisation opportunities, potentially increased the risk of speech delay going undetected, especially for older children whose language was starting to develop in earnest during the first lockdown.

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Lastly, it's interesting to see how most caregivers felt that their child's language was unaffected by the pandemic, because this is similar to what other surveys have found, and it's the opposite of how many reception class teachers have reported feeling: in one survey, 96% were concerned about the language ability of their pupils who started in October 2020, but only 3% of the pupils' caregivers shared this concern. So we can't take for granted that the pandemic cohort have been as unaffected by the pandemic as their caregivers might hope- taken with my previous point, perhaps we should pay closer attention to their development so as not to overlook any children at risk of delay.



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## Conclusion: An advantage for younger children?

### Limitations

- Small sample size
- Couldn't consider socioeconomic status
- Low generalisability
- Language assessments differed for each age group



### Directions for future research

- Investigate differences on a larger/quantitative scale?
- Consider socioeconomic status?
- Assess language at multiple stages?

### Questions for future research

- Are the pandemic cohort at greater risk of developmental language delay?

So do the overall results suggest an advantage for younger children? Possibly- certainly, this might be worth investigating on a larger scale. One of the limitations of this study has been the small sample size and therefore the low generalisability and reliability of the results. However, I hope that it has raised some interesting questions for exploration in future studies, and for you to think about- such as whether the pandemic generation are at increased risk of language delay.

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# Thank you!

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## References

- Bergmann, C., Dimitrova, N., Alasani, K., Almohammadi, A., Alroqi, H.,... and Mani, N. (2022) 'Young children's screen time during the first COVID-19 lockdown in 12 countries', *Scientific Reports*, 12(1). doi: 10.1038/s41598-022-05840-5.
- Bowyer-Crane, C., Bonetti, S., Compton, S., Nielsen, D., D'Apice, K. and Tracey, L. (2021) *The impact of Covid-19 on school starters: interim briefing 1: parent and school concerns about children starting school*. Education Endowment Foundation. Available at: [https://d2tic4wvo1usb.cloudfront.net/documents/projects/impact\\_of\\_covid19\\_on\\_school\\_starters\\_-\\_interim\\_briefing\\_1\\_-\\_april\\_2021\\_-\\_final.pdf?v=1630925205](https://d2tic4wvo1usb.cloudfront.net/documents/projects/impact_of_covid19_on_school_starters_-_interim_briefing_1_-_april_2021_-_final.pdf?v=1630925205) (Accessed: 14 February 2022).
- Davies, C., Hendry, A., Gibson, S. P., Gliga, T., McGillion, M. and Gonzalez-Gomez, N. (2021) 'Early childhood education and care (ECEC) during COVID-19 boosts growth in language and executive function', *Infant and Child Development*, 30(4). doi: 10.1002/icd.2241.
- Green, M. J., Pearce, A., Parkes, A., Robertson, E. and Katikireddi, S. V. (2021) 'Pre-school childcare and inequalities in child development', *SSM - Population Health*, 14(1). doi: 10.1016/j.ssmph.2021.100776.
- Hamilton, A., Plunkett, K. and Schafer, G. (2000) 'Infant vocabulary development assessed with a British communicative development inventory', *Journal of Child Language*, 27(3), pp. 689-705.
- Hansen, K. and Hawkes, D. (2009) 'Early childcare and child development', *Journal of Social Policy*, 38(2), pp. 211-239.
- Kartushina, N., Mani, N., Aktan-Erciyas, A., Alaslani, K., Almohammadi, A.,... and Mayor, J. (2022) 'COVID-19 first lockdown as a window into language acquisition: associations between caregiver-child activities and vocabulary gains'. To be published in *Language Development Research* [Preprint]. Available at: <https://psyarxiv.com/Sejwu/> (Accessed: 16 September 2021).
- Kuhl, P. K. (2004) 'Early language acquisition: cracking the speech code', *Nature Reviews. Neuroscience*, 5(11), pp. 831-843.
- Martin-Biggers, J., Alleman, G., Hongu, N., Worobey, J. and Byrd-Bredbenner, C. (2015) 'Beliefs and barriers to limiting screentime behaviours by parents of preschoolers', *Journal of Nutrition Education and Behaviour*, 47(4). doi: 10.1016/j.jneb.2015.04.161.
- Melhuish, E. and Gardiner, J. (2020) *Study of early education and development (SEED): impact study on early education use and child outcomes up to age five years*. Department for Education. Available at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/867140/SEED\\_AGE\\_5\\_REPORT\\_FEB.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/867140/SEED_AGE_5_REPORT_FEB.pdf) (Accessed: 15 February 2022).
- Pascal, C., Bertram, T., Cullinane, C. and Holt-White, E. (2020) *COVID-19 and social mobility impact brief #4: early years*. The Sutton Trust. Available at: <https://www.suttontrust.com/wp-content/uploads/2020/06/Early-Years-Impact-Brief.pdf> (Accessed: 31 January 2022)
- Shonkoff, J. and Phillips, D. A. (2003) *From neurons to neighbourhoods: the science of early child development*. Washington DC: Academy Press.
- Tran, H. and Weinraub, M. (2006) 'Child care effects in context: quality, stability, and multiplicity in nonmaternal child care arrangements during the first 15 months of life', *Developmental Psychology*, 42(3), pp. 566-582.
- Vernon-Feagans, L., Bratsch-Hines, M. E. and The Family Life Project Key Investigators (2013) 'Caregiver-child verbal interactions in child care: a buffer against poor language outcomes when maternal language input is less', *Early Childhood Research Quarterly*, 28(4), pp. 859-873.
- Visser-Bochane, M. I., Reijneveld, S. A., Krijnen, W. P., van der Schans, C. P. and Luinge, M. R. (2019) 'Identifying milestones in language development for young children ages 1 to 6 years', *American Pediatric Association*, 20(3), pp. 421-429.

For now, however, I shall say thank you for listening, and I look forward to your questions.