preparing for life

Early Childhood Intervention

Summary Report

Did *Preparing for Life* Improve Children's School Readiness?

UCD Geary Institute for Public Policy

Preparing for Life

working together for our children

The Atlantic Philanthropies

An Roinn Leanaí agus Gnóthaí Óige
Department of Children and Youth Affairs

Northside Partnership

preparing for life

What is the *PFL* programme?

Preparing for Life (*PFL*) is one of the most extensive randomised control trials of an early childhood intervention conducted in Europe. At its heart, the *PFL* programme seeks to provide families with a helping hand in getting their children ready for one of the most important transitions of their life – starting school. *PFL* has shared the lives of over 200 families in an area of Dublin, Ireland, from pregnancy through to when the children started school. As their journey together has now drawn to a close, this report answers the critical question - *"Did the PFL programme improve the lives of these children?"*

Why was the *PFL* programme developed?

PFL was developed as evidence showed that over half of the children living in its catchment area were starting school without the necessary skills to make a successful transition to school life. The *PFL* initiative aimed to promote child development and improve low levels of school readiness by supporting parents to develop skills and knowledge to help prepare their children for school.

What is school readiness?

The *PFL* programme considers 'school readiness' as children's skills across five areas:

Cognitive Development
Understanding information, thinking logically, familiarity with numbers, seeing patterns, and solving puzzles

Language Development
Understanding what others are saying, being able to talk to others, and starting to read words

Approaches to Learning
Being excited and interested in learning, able to focus on and complete tasks

Social & Emotional Development
Behaving well, following rules, getting along with others, sharing, and helping

Physical Wellbeing & Motor Development
Being healthy, free from illness, able to run, and hold objects such as pencils in their hands

How did the *PFL* programme and evaluation work?

From 2008 to 2015, the evaluation team from the UCD Geary Institute for Public Policy followed the journey of families who agreed to participate in the randomised control trial (RCT). When the families consented to join *PFL* during pregnancy they were randomly assigned to either a high treatment group or a low treatment group. Using the RCT design ensured there were few differences between the types of families in the high treatment group and the types of families in the low treatment group before the programme began. This meant that if the outcomes of the two groups were different over the course of the evaluation, we could be confident that the improved outcomes were caused by the *PFL* programme.

What did the families receive?

HIGH TREATMENT SUPPORTS

MENTORING
Through regular home visits, the *PFL* mentors built good relationships with parents and provided them with high quality information about parenting and child development using Tip Sheets. The home visits started in pregnancy (at~21 weeks) and continued until the child started school at age 4 or 5.

TRIPLE P
The Triple P Positive Parenting Programme aimed to improve positive parenting through the use of videos, vignettes, role play, and Tip Sheets in a group-based setting. Parents participated in Triple P training when their children were between 2 and 3 years of age.

BABY MASSAGE
Baby massage classes were offered during the first year to equip parents with skills which would allow them to interact with, stimulate, relieve, and relax their baby, and to emphasise the importance of communication between parents and babies.

PFL PARTICIPANTS

R

HIGH TREATMENT (GREEN)
1. €100 worth of child developmental toys annually and book packs
2. Facilitated access to enhanced pre-school
3. Public health workshops
4. Facilitated access to local services
5. Access to social events
6. Mentoring
7. Triple P
8. Baby massage

N = 115

LOW TREATMENT (BLUE)
1. €100 worth of child developmental toys annually and book packs
2. Facilitated access to enhanced pre-school
3. Public health workshops
4. Facilitated access to local services
5. Access to social events

N = 118

How was the programme delivered?

ATTRITION

How many families stayed in the study?

Randomised 233

High Treatment		Low Treatment	
Pregnancy	115	Pregnancy	118
At Junior Infants	75	At Junior Infants	74

Who was more likely to stay in the study?

High Treatment mothers with better cognitive resources and who had a job during pregnancy

Low Treatment mothers who were older, who already had children, and who had better knowledge of child development when they joined *PFL*

ENGAGEMENT

How much support did high treatment families receive?

Home Visits

Families received on average **51 hours** of home visits

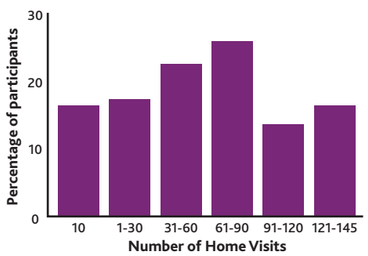
Visits lasted **49 minutes** on average

The number of visits ranged from **0 to 145**

Families received on average **50** visits

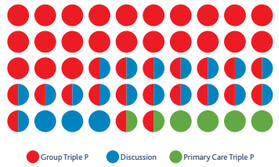
96 families had at least one home visit

Older mothers with higher cognitive resources who were employed during pregnancy and had better knowledge of child development during pregnancy **engaged** in more home visits



Parenting Skills Training

50 families engaged in Triple P training



Baby Massage

62% of families attended baby massage classes

CONTAMINATION

Did the low treatment group receive the high treatment supports?

The potential for contamination was high in *PFL* as it took place in a small community where families in the high and low treatment groups may have known each other. However, our measures of contamination found that the low treatment families did not benefit from the supports offered to the high treatment families.

During the course of the study, families took part in research visits involving questionnaires, observations, and direct assessments when their children reached 6, 12, 18, 24, 36, and 48 months of age. Families also gave consent for the evaluation team to access their maternity hospital records from the Rotunda Hospital and the National Maternity Hospital Holles Street, and their children's hospital records from Temple Street Children's University Hospital. In Junior Infants, teachers completed online surveys about the children's school readiness, and the researchers conducted interviews with the children on their experiences of school life. This report summarises these findings.

Did the *PFL* programme work?

Did *PFL* improve children's cognitive development…

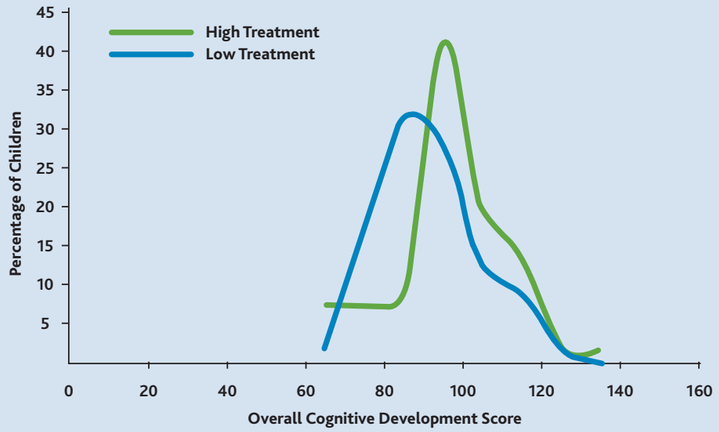
During the programme?

The *PFL* programme improved children's cognitive development from 18 months of age onwards. Children who received the high treatment supports had better general cognitive functioning and more of them scored above average from 24 months onwards.

> ***"I've got 1, 2, 3, 4, 5 …I keep learning"*** *PFL* Child in Junior Infants

At school entry?

By school entry, the *PFL* programme had a significant and large impact on children's cognitive development. Children who received the high treatment supports had better general cognitive functioning, spatial abilities, non-verbal reasoning skills, and basic numeracy skills. This means they were better at understanding information, seeing patterns, solving problems, and working with numbers.



Did *PFL* improve children's language development…

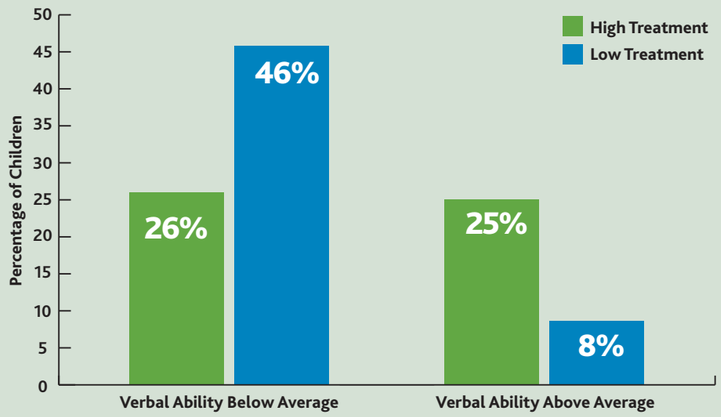
During the programme?

The *PFL* programme made limited improvements to children's language development up to 48 months. Children who received the high treatment supports had better emergent literacy skills at 24 months and better communication skills at 36 months. The programme did not improve children's expressive or receptive language skills during the programme.

> ***What's easy about school? "Ahm, my letters and I could read on my own now."***
>
> ***What's hard about school? "Ahhh, tricky words..They are words that are tricky, but they don't trick us."***
>
> *PFL* Child in Junior Infants

At school entry?

By school entry, the *PFL* programme had a significant and large impact on children's overall verbal ability, their expressive and receptive language skills, and their communication and emerging literacy skills. This means that the children who received the high treatment supports were better able to use and understand language and had better skills for reading and writing. The programme did not improve children's basic or advanced literacy skills.



Did *PFL* improve children's approaches to learning…

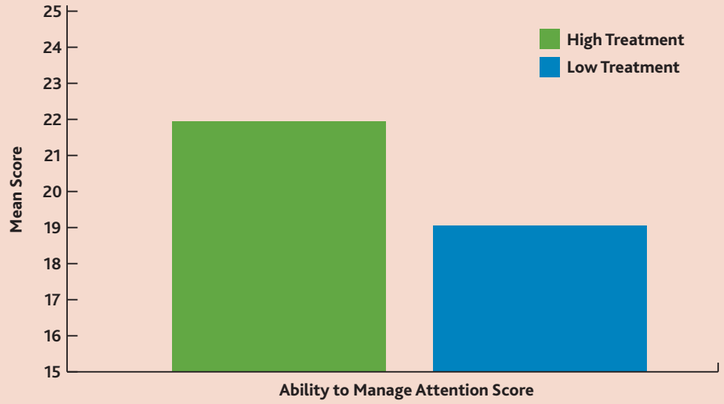
During the programme?

The *PFL* programme improved children's approaches to learning from 36 months onwards. This means that the children who received the high treatment supports were more likely to explore their world and learn with toys.

> ***What will Riley the rabbit like about school? "He'll like to work…Because you get to colour in…You learn and you get to colour and play and you get to go out into the yard….I like colouring and I like going out to the yard…"***
>
> *PFL* Child in Junior Infants

At school entry?

By school entry, the *PFL* programme had some impact on how children approached learning. Children who received the high treatment supports were better able to manage their attention, yet the programme did not change their general approaches to learning, interest in school subjects, keenness to explore new things, or their ability to control impulsive behaviour.



Did *PFL* improve children's social and emotional development…

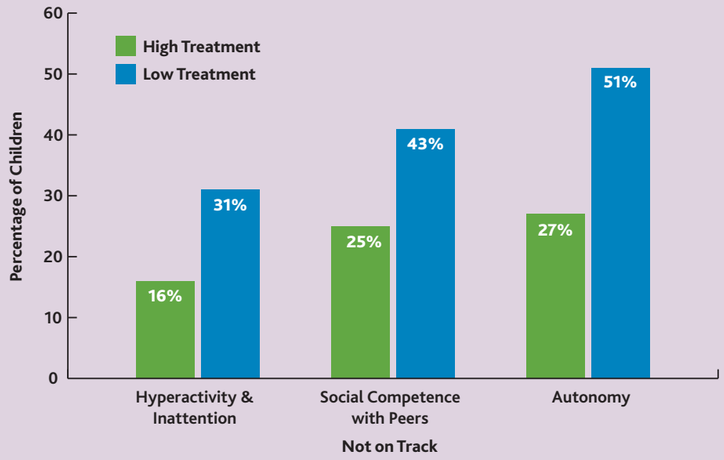
During the programme?

The *PFL* programme reduced children's internalising and externalising behaviour problems from 24 months onwards. This means that the children who received the high treatment supports were less likely to feel negative emotions such as sadness or act out in negative ways like throwing tantrums. From 36 months onwards, the programme improved children's positive prosocial behaviours such as sharing with others.

> ***What will Riley the rabbit need to know about school? "She will have to know to say hi in the yard…. Maybe she will make some friends out in the yard I guess….Yes I really think so."*** *PFL* Child in Junior Infants

At school entry?

By school entry, the *PFL* programme had a significant impact on reducing children's hyperactivity and inattentive behaviours and improving their social competencies and autonomy. This means that the children who received the high treatment supports were less likely to be distractible in the classroom, got on better with their classmates, and had the skills needed to be independent in the school day. The programme had no impact on children's aggression, oppositional-defiance, anxious behaviour, or on their prosocial, respectful behaviours according to the teacher reports.



Did *PFL* improve children's physical wellbeing and motor development...

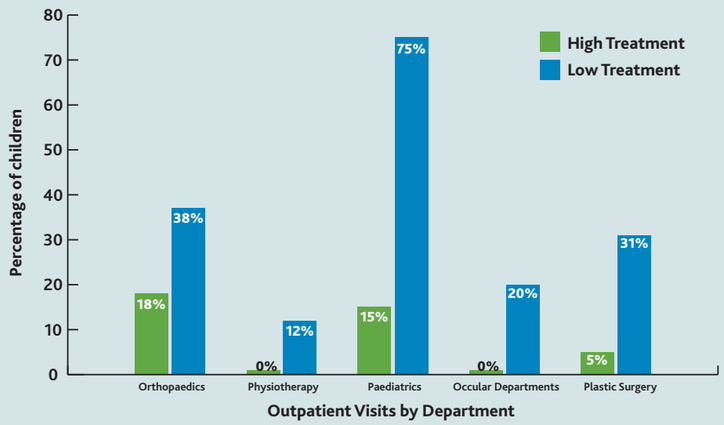
During the programme?

The *PFL* programme had an impact on the children's physical wellbeing and motor development from birth onwards. Children who received the high treatment supports were more likely to be born naturally, to be immunised, were healthier, had better diets and motor skills, were less likely to be overweight, and more likely to be toilet trained.

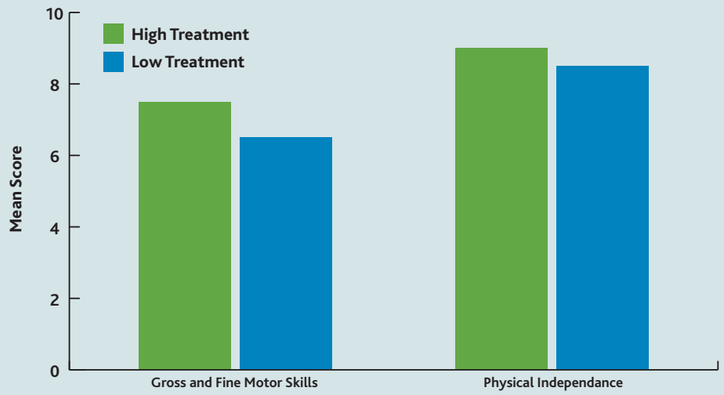
> ***"I eat healthy stuff, I eat my nanny's apples, I eat nanny's bananas...And I eat carrots and grapes. I don't even eat peppers, they are too hot"*** *PFL* Child in Junior Infants

At school entry?

The programme had a significant impact on reducing the amount of hospital services the children used and improved how families used these services. There was a limited impact on the diagnoses children received in hospital, but children who received the high treatment supports were less likely to have to visit the hospital for urgent reasons, and were less likely to experience fractures. They were also less likely to have visited the Orthopaedics, Physiotherapy, Paediatrics, Occular, and Plastic Surgery Outpatient departments.



By school entry, the *PFL* programme had a significant impact on children's gross and fine motor skills and their physical independence. The programme had no impact on children's physical readiness for the school day.



Key Results

Overall, *PFL* achieved its aim of improving children's school readiness. The programme had a positive and significant impact on each of the five domains as summarised below:

	Impacts during the programme	Impacts at school entry
Cognitive Development	Cognitive improvements from 18 months onwards	10 point IQ gap between children in the high and low treatment groups
Language Development	High treatment children were better at combining words at 24 months	25% of high treatment children had above average verbal ability compared to 8% of low treatment children
Approaches to Learning	High treatment children showed better approaches to learning from 36 months	High treatment children were better able to control their attention than low treatment children
Social & Emotional Development	2% of high treatment children were at risk of behavioural problems compared to 17% of low treatment children at 48 months	25% of high treatment children 'not on track' in their social competence compared to 43% of low treatment children
Physical Wellbeing & Motor Development	24% of high treatment children were classified as overweight compared to 41% of low treatment children at 48 months	High treatment children had better gross and fine motor skills

Concluding Remarks

This report has drawn together a wealth of information from parents, teachers, children, and administrative records to consider the overall impact of the *PFL* programme on children from birth until school entry. Based on the weight of evidence, it is clear that *PFL* improved the lives of the participating children, and ultimately achieved its aim of getting children ready for school. By implementing thorough checks and procedures throughout the evaluation, and subjecting the data to rigorous testing, we are confident that these findings are robust. It remains to be seen whether the success of the *PFL* programme at school entry will persist into the children's later lives, but for now, thanks to the efforts of the *PFL* parents and the programme staff, we know that the *PFL* children have started school with the foundations set to reach their full potential.

Implications

The findings from the *PFL* evaluation has implications for policy, practice, and research. Below we summarise some of these key implications.

Policy

- *PFL* makes an important contribution to the international evidence-base by demonstrating that intensive family support from pregnancy onwards is key to improving the outcomes of disadvantaged children.
- *PFL* impacted on multiple dimensions of children's lives, thus demonstrating its capacity to contribute to the five national outcomes outlined in the Better Outcomes, Brighter Futures national policy framework for children and young people (Government of Ireland, 2014).
- *PFL* is closely aligned to the Better Outcomes, Brighter Futures commitment to prioritise supports for parents, prevention and early intervention, and investment in programmes that have strong evidence of effectiveness.

Practice

- Given the higher levels of participant drop-out during the first six months of programme implementation, particular attention should be paid to engaging and retaining families during pregnancy and around the birth of the child.
- *PFL* was successful in attracting families most in need of intervention. If the programme is rolled out in communities with different characteristics the eligibility criteria for programme entry should be revisited.
- There was considerable variability in the number of home visits the families received. While working within the boundaries of the *PFL* manual, the programme should continue to be flexible to families' needs regarding the timing, location, and focus of the home visits.

Research

- A follow-up study of the *PFL* children would inform evidence regarding the medium and long-term impact of the programme, while generating evidence on the persistence or fade-out of the effects at school entry.
- Continuation of the Children's Profile at School Entry study, which has tracked the school readiness skills of all children in the *PFL* communities since 2008, may provide important information on the wider impact of the programme in the long term.
- If the *PFL* programme is rolled-out in communities with different characteristics, it would be prudent to conduct a replication study to test whether the gains made in the *PFL* community can be replicated among different populations.

This story presents the journey of a typical *PFL* mother based on the data collected

Kirsty's mam joined the *PFL* programme when she was 21 weeks pregnant. She wasn't sure about joining the programme at first, but after chatting to her mentor she felt comfortable about taking part. While she was a little shy at the start, once she got to know her mentor, she started to look forward to her visits which usually happened about once a month. After Kirsty was born, Kirsty's mam followed the Tip Sheets her mentor had discussed with her and took steps to make their house safer by putting covers on electrical sockets and using safety gates. When Kirsty was a few months old, her mam took her to the *PFL* offices to get a professional photo taken. She loved getting the framed picture of Kirsty and enjoyed talking to the other new mams in the area.

Kirsty's mam found that looking after a 6 month old baby was challenging, but by using some tips from her mentor, such as going for a walk with Kirsty to stop her crying and giving her a massage to help her sleep, she was able to deal with these stressful situations. Kirsty's mam and her older sister enjoyed playing with Kirsty on the play mat from the *PFL* developmental pack. While Kirsty's mam would never have considered buying one herself, she found the mat very useful. Using books from *PFL*, she would sit Kirsty on her knee, and read to her while pointing at and naming the colourful pictures.

When Kirsty was 12 months old, her mam supervised happily as Kirsty started to walk and explore. At 18 months, Kirsty's mam would spend time with her by singing songs, dancing, and telling her stories. Even though Kirsty's mam smoked, she never smoked inside their house. At about this time, Kirsty's mam was concerned about her language and after talking to her mentor, she visited the GP to discuss getting some extra help for Kirsty. When she was a toddler, Kirsty would sometimes bite or hit other children. While this was worrying for Kirsty's mam at first, from talking to her mentor she realised that Kirsty was just learning the limits of how to behave, so instead of shouting at her, she would stay calm and talk to Kirsty about why she shouldn't hurt others.

When Kirsty was 2 years old, her mam found it frustrating when Kirsty wouldn't eat any vegetables, and Kirsty would often throw a tantrum if there were vegetables on her plate. Kirsty's mam dealt with this by using the techniques she learned from her mentor and the Stress Control classes. She also used the techniques which she and Kirsty's dad had learned from the Triple P programme such as turning away and not paying attention to Kirsty when she was throwing tantrums and praising her when she ate a small portion of vegetables. As she watched Kirsty grow, she felt proud of how she was doing as a parent, and of how well her daughter was developing.

When Kirsty was 3 years old, she was allowed to watch a little TV every day, she really liked Peppa Pig and Dora the Explorer. After a few hours, her mam would switch off the TV and sit and play puzzles with her. At first, Kirsty would get upset when her mam turned off the TV and would push the puzzles away, but her mam would remain firm and follow through with the puzzles. When Kirsty began pre-school, her mam would wake her at the same time every day, make her breakfast, and walk her to pre-school. When Kirsty came home, they would have some play time together and talk about what she did during the day. Then after dinner and a bath, her dad would put her to bed.

When Kirsty was 4 years old, life was busy for her mam. She found Kirsty's behaviour a little difficult at times as Kirsty wanted to choose what to wear and what to eat on her own. But her mam realised this was just a part of Kirsty growing up and she didn't find these difficulties much of a hassle. As Kirsty was starting school soon, her mam was getting ready to leave the *Preparing for Life* programme. She felt sad that she wouldn't see her mentor every month, but was glad that she had taken part in the programme as she felt it really had helped her get Kirsty ready for school.




This story presents the life of a typical *PFL* child at school entry based on the data collected

Now that Kirsty has started Junior Infants, she is getting on very well and has successfully adjusted to school life. Her teacher says she was definitely ready to start school this year. During class she can sit calmly and pay attention to the teacher. She is a smart student and finds it easy to understand the new things her teacher explains to her. Kirsty particularly enjoys activities which involve patterns and numbers. At break-time she eats her healthy lunch without difficulty and she can go to the bathroom by herself. When the teacher asks the class to line up before going outside, she can easily follow the instructions. In the yard she has fun with her classmates and runs about playing games. When school is over, Kirsty's mam collects her and Kirsty tells her all about her day as they walk home together.

A more detailed report of the *PFL* evaluation can be found at the following website under publications:

http://geary.ucd.ie/preparingforlife