Wales Centre for Public Policy
Canolfan Polisi Cyhoeddus Cymru

Integrated early years systems

Technical annex

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- Works with public services to access, generate, evaluate and apply evidence about what works in addressing key economic and societal challenges; and
- Draws on its work with Ministers and public services, to advance understanding of how evidence can inform and improve policy making and public services and contribute to theories of policy making and implementation.

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Contents

1 Introduction

The Welsh Government is developing its system of services for children from conception to 7 years, and is considering all relevant services as within scope for this development. It is looking at international evidence on early years systems which have similar policy challenges, or have already developed an integrated early years system, from which it can learn. To support this work, the Centre for Research in Early Childhood has been commissioned to complete a short focused evidence review for the Wales Centre for Public Policy which builds on and extends policy comparison work already completed by CREC for various international bodies and the Department for Education (London) which has documented and analysed international comparisons between preschool systems in 45 countries. The review draws on this work and a number of other published reviews which were identified through a rapid evidence evaluation process.

This **Technical Annex** provides some of the more detailed technical material and analysis which supported the findings of the Review, focusing also on additional material form countries not included in the final four case studies.

2 Research design

In this section, we set out the review aims, questions and research approach applied.

Review aims

In commissioning the report, Welsh Government identified two key aims:

- To review cases of a specified number of countries / regions similar to Wales who have 'integrated early years systems', and to explore systemically what has worked and what hasn't given different policy aims, and highlight the policy choices / trade-offs inherent in the systems they have in place;
- To describe how transformations in system delivery towards integrated system delivery models and enhanced access to these integrated services have been achieved.

Review questions

The evidence review addresses the following overall research question:

What is the available evidence on integrated early years 'systems' from countries comparable to Wales?

Sub-questions include:

- *What are others doing?* What are the different 'systems' of early years provision in action in countries or regions similar to Wales?
- *How effective are they?* What evidence is available on the impact of these 'systems' on outcomes for children and their families? And on provider services and outputs?
- *How cost effective are they?* What is the relative cost of each model (or key components), for the outcomes achieved? [If evidence available]

In the analysis, translating 'what works' (and what doesn't) to Wales:

- What type or level of integration is desirable?

- Which early years 'systems', if any, might Wales seek to replicate in whole or part?
- What are the key enablers to integrating services, at local and at national levels?
- What can be learned about the change process when developing a more integrated early years system?

Research approach

Part 1: Evidence Mapping

Using Rapid Evidence Analysis techniques, relevant reviews and existing data sets were identified. The review evidence particularly drew on 6 international comparative studies of early childhood health, care and education systems:

- Economist Intelligence Unit (EIU) (2012) **Starting Well: Benchmarking Early Education Across the World.** Economist Intelligence Unit: Hong Kong;
- Cullen A., McDaid, D., Wynne R., Matosevic T. and Park, A. (2017) **A wide-angle international review of evidence and developments in mental health policy and practice. Evidence review to inform the parameters for a refresh of A Vision for Change** *(AVFC).* Department of Health, Dublin, Ireland;
- OECD (2017a) **Starting Strong 2017: Key OECD Indicators on Early Childhood Education and Care, Starting Strong,** OECD Publishing, Paris;
- Pascal C., Bertram T., Delaney S., and Nelson C. (2012) **A Comparison of International Childcare Systems: Evidence to Childcare Commission.** London: Department for Education;
- Pascal C. and Bertram T. (2016) **Early Childhood Policies and Systems in Eight Countries: Findings from IEA's Early Childhood Education Study,** The International Association for the Evaluation of Educational Achievement: Hamburg;
- Wolfe I. (Ed) (2014) **European Child Health Services and Systems: Lessons Without Borders,** McGraw Hill Education, UK.

The interrogation of these five key reviews and additional data sets supported the creation of a matrix presenting evidence on the early years systems in 10 countries. The criteria used for choosing the 10 countries analysed in this first phase included: size, governance,

population, economy, ECEC system, performance in PISA and data availability. The 10 selected countries were: England, Ireland, Finland, Denmark, Belgium, New Zealand, the Netherlands, Germany, Poland and Estonia. The 10 country matrix, which summarises the available data, displays key policy responses and consequent systemic structural features for each country, presented as 26 system features under four key headings; Context, Policy/System (Health and Education), Health and Education. Within the table we used a scoring system of 1-5 which was based on the methodology used for the Starting Well Index (EIU, 2012), where 1=worst and 5=best. This scoring process allows a judgement to be made quickly on the higher performing systems on each of the 26 features. Details of the 26 System Features and Scoring Methodology are set out in Appendix 1 and the resulting Matrix in Appendix 2.

Part 2: Case studies

From the first phase mapping exercise which looked at approaches to delivering integrated service delivery models for health, social care and early education in 10 countries, 6 countries were identified for a closer look to ascertain the relevance of their health, social care and education provision for young children: Belgium, Denmark, Estonia, Finland, Ireland and the Netherlands. A short report was produced for each of the six countries which allowed the commissioning team to agree four countries for an in-depth case study. The enabled the production of four detailed case studies of early years policy, the systemic features of services, the level of integration and the process of achieving this, where evidence existed.

The final four cases were selected using the following criteria: size and demography, structural/ political landscape, stage of development in integration of services, availability of data. It was agreed that the cases to be studied for phase 2 of the review would be Belgium, Denmark, Estonia and the Netherlands

The aim of the case studies was to describe the demographic context, the policy/governmental framework for delivering early years services; the current health, social/family care systems, including the front line delivery and user experience of services (where evidence is available) and the countries' policy pathway towards developing an integrated service. Evidence was collected and collated from existing published reviews, papers and policy documents and presented as four individual case studies.

A meta-analysis of the four cases was undertaken using Bertram and Pascal's (2002) Level of Integration Model and Kotter's 8-step Change Model (2012) to draw out both common saliences and important differences in the policy choices made at different stages of integration, and the consequences for service delivery and service experience for users.

Appendix 1: Phase One scoring methodology

The criteria used for choosing the 10 Phase One countries analysed in Phase One included: Size; Governance; Population; Economy; ECEC system; Performance in PISA; Availability of data. The 10 selected countries were: England, Ireland, Finland, Denmark, Belgium, New Zealand, the Netherlands, Germany, Poland and Estonia. The matrix, which summarises the available data, displays key policy responses and consequent systemic structural features for each country, presented as 26 system features, namely:

CONTEXT

1. PISA Ranking (2012)
2. Child and adolescent population trends (demographic data)
3. Population at risk of poverty or social exclusion
4. Child deprivation
5. Child mortality rates
6. Health/wellbeing of children

POLICY/SYSTEM (Health and Education)

7. Government spending on early education/health as % of GDP
8. Departmental/Ministerial ownership for health and education
9. Legal right to ECEC/health services
10. Parental leave - universal entitlements
11. Age at school start
12. ECEC/Health Policy strategy
13. Target groups for early intervention (health/education)
14. Enrolment/participation levels in ECEC/health services
15. Funding/subsidies strategy
16. Expectation of system outcomes

17. Integration strategies
18. Workforce training health/education

HEALTH

19. Types of health services and funding (including mental health)
20. Coverage of health services (EYs)
21. Regulatory framework/inspection/accreditation
22. Level of integration

EDUCATION

23. Setting types and funding
24. Coverage of education services
25. Regulatory framework/inspection/accreditation
26. Level of integration

An accompanying commentary for each feature in the matrix was also developed.

Within the table we used a scoring system of 1-5 based on the methodology used for the Starting Well Index (EIU, 2012), where 1=worst and 5=best. The Starting Well research assessed data regarding the inclusiveness and quality of preschool services across 45 countries, a number of which have been included in this review. To score countries across four categories - Social Context, Availability, Affordability and Quality - it comprised indicators falling into two broad categories: Quantitative indicators (for example, preschool enrolment ratio and government pre-primary education spending) and qualitative indicators (for example, “Subsidies for underprivileged families”). These qualitative indicators have been expressed on an integer scale of 1-5 (where 1=worst, 5=best).

Indicator scores were normalised and then aggregated across categories to enable an overall comparison. To make data comparable, we normalised the data on the basis of: Normalised x = (x - Min(x)) / (Max(x) - Min(x)), where Min(x) and Max(x) are, respectively, the lowest and highest values in the countries for any given indicator. The normalised value was then transformed into a positive number on a scale of 0-100. This was similarly done for quantitative indicators where a high value indicates greater inclusiveness and quality of preschool services. This scoring process allows a judgement to be made quickly on the higher performing systems on the 26 features.

Appendix 2: Phase 1 Matrix of early years systems in 10 countries

Key: NZ - New Zealand
NL - The Netherlands
Ger – Germany
NDA – No data available within the identified sources

System Features		Wales	England	Ireland	Finland	Denmark	Belgium	NZ	NL	Ger	Estonia	Poland
CONTEXT												
1. PISA Ranking (2012)			4 (UK)	18	1	6	5	9	8	11	NA	31
2. Child and adolescent population trends (demographic data)		The number of children in Europe is slowly decreasing, as is the proportion of young people in the population, with a corresponding increase in elderly people throughout Europe.										
3. Population at risk of poverty or social exclusion		1/5	1/5	NDA	1/5	1/5	NDA	NDA	1/5	1/5	NDA	NDA
4. Child deprivation		3/5	4/5	NDA	5/5	4/5	1/5	NDA	4/5	1/5	0/5	0/5
5. Child mortality rates			3/5	NDA	4/5	3/5	3/5	NDA	3/5	4/5	3/5	3/5
6. Health/wellbeing of children			5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5
POLICY/SYSTEM (Health and Education)												
7. Government spending on early education/health as % of GDP	Education		1.1	1.4	1.2	3.1	2.1	NDA	1.6	1.3	2.2	1.8
	Health		3/5	5/5	5/5	5/5	3/5	NDA	1/5	5/5	4/5	1/5

8. Departmental/Ministerial ownership for health and education	Education	Department for Education and Skills (Wales)	Department for Education (England)	Department of Education (Northern Ireland)	Ministry of Education and Culture	Integrated Body	Department for Education and Training	Ministry of Education	Local Health and Education	Federal Ministry of Education and Research	Department of Education	(ECED) Health and Integrated Body, (PPE) Education
	Health	Health and social services	Department of Health & Social Care	Department of Health	Ministry of Social Affairs and Health	Ministry of Health	Belgium Ministry of Health	Ministry of Health	Ministry of Health and local Health and Education	Federal Ministry of Health	Department of Social Welfare	Ministry of Health
9. Legal right to ECEC/health services	Education		5/5	5/5	5/5	5/5	5/5	0/5	5/5	5/5	3/5	4/5
	Health											
10. Parental leave - universal entitlements			NDA	NDA	NDA	3/8	NDA	NDA	NDA	NDA	4/8	4/8
11. Age at school start		5	5	4	7	7	6	5	5	6	7	7
12. ECEC/Health Policy strategy	Education		5/5	4/5	4/5	4/5	5/5	4/5	3/5	3/5		3/5
	Health											
13. Target groups for early intervention (health/education)	Education		NDA	NDA	NDA	5/5	NDA	NDA	NDA	NDA	5/5	5/5
	Health											
14. Enrolment/participation levels in ECEC/health services	Education		5/5	5/5	5/5	4/5	5/5	5/5	5/5	5/5	2/5	1/5
	Health											
15. Funding/subsidies strategy	Education		5/5	4/5	5/5	4/5	4/5	4/5	3/5	1/5	4/5	2/5
	Health											

16. Expectation of system outcomes		4/5	NDA	NDA	NDA	4/5	NDA	NDA	NDA	NDA	4/5	2/5
17. Integration strategies			NDA	NDA	NDA	2/5	NDA	NDA	NDA	NDA	5/5	0/5
18. Workforce training health/education	Education		5/5	3/5	5/5	4/5	4/5	5/5	4/5	3/5	4/5	3/5
	Health											
HEALTH												
19. Types of health services and funding (including mental health)			School health services are part of the health service, but distinct. School health services visit schools	NDA	School health services are part of the health service, but distinct and are school based. Some services (e.g. school environment inspection) are offered by primary health care	NDA	NDA	NDA	School health services are part of the health service, but distinct. School health services visit schools	NDA	NDA	School health services are part of the health service, but distinct. School based. Some services offered by primary health care
20. Coverage of health services (EYs)		Health Visitor Antenatal Review; Family Health Review at One to Six Weeks, 8-16 weeks, 6 months, 15 months, 27 months, 3 1/2 years and 4-5-years.	7-10 antenatal appointments; Post-natal HV support, 6-week post-natal check and regular child health & development reviews till age 2	NDA	Comprehensive health examination (and separate oral health examination) at 1st (7 years), 5th (11 years) and 8th (14 years) grades; basic examination once per academic year at all other	NDA	NDA	NDA	Several well-care visits during school years, mostly grades 2 (5–6 years) and 7 (10–11 years) in primary school	NDA	NDA	Preschool, and at 3rd grade primary (9 years).

					grades from 2nd to 9th							
21. Regulatory framework/inspection/accreditation		The National Service Framework (NSF) for Children, Young People and Maternity Services sets out the quality of services that children, young people and their families have a right to expect and receive in Wales. Its scope includes all children and young people from pre-conception to 18th birthday, for whom NHS Wales and local social services authorities have a responsibility.										
22. Level of integration												
EDUCATION												
23. Setting types and funding			NDA	NDA	NDA	0-6 years	NDA	NDA	NDA	NDA	0-7 years	5 months-7 years

24. Coverage of education services	Foundation Phase curriculum for 3-7 year olds	NDA	NDA	NDA	For ECED and PPE	NDA	NDA	NDA	NDA	For ECED and PPE	For PPE, with limited availablity in rural areas
25. Regulatory framework/inspection/accreditation		4/5	3/5	5/5	4/5	5/5	NDA	4/5	3/5	3/5	0/5
26. Level of integration											

Sources: See References

Appendix 3: Phase 1 analysis findings

The comparative evidence for the 10 selected countries that was generated by the review is summarised in the matrix provided in Appendix 2. A short commentary on each of the system features in the 10 review countries is provided below. Where we were unable to locate the data from within the available published data sets we recorded NDA (No Data Available). It should be noted that this does not mean that the data could not have been located with more research, but that it was not available in the selected reviews we were working with due to limited resources. Key points from the Phase 1 10 country review are highlighted at the end of this section.

Context

1 PISA ranking (2012)

England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
4 (UK)	18	1	6	5	9	8	11	NA	31

The data reveals within the 10 selected countries there is a spread of performance in the PISA Ranking, but 6 countries are in the top 10 performers on this ranking, indicating that their early years systems appear to be performing well.

2 Child and adolescent population trends (demographic data)

England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA

Whilst the data is not supplied for individual countries, the review evidence indicated that the number of children in Europe is slowly decreasing, as is the proportion of young people in the population, with a corresponding increase in elderly people throughout Europe.

3 Population at risk of poverty or social exclusion

England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
1/5	NDA	2/5	2/5	NDA	NDA	2/5	2/5	NDA	NDA

Even in countries with well-developed social welfare systems, recent figures reveal a relatively high number of children at risk of poverty or social exclusion, and this number is increasing in many of the review countries. Derived from the percentage of children age 0–17 years at risk, Lessons without Borders (2014) looked at the proportion of the population at risk of poverty or social exclusion in 2011. Raw data; UK (26.9%), Finland (16.1%), Denmark (16%), the Netherlands (18%) and Germany (19.9%). Poverty in Wales is higher than the UK average, and the proportion of the Welsh population living in relative income poverty is forecast to rise. The Institute for Fiscal Studies forecasts that child poverty in Wales could increase by around a third by 2020 and Save the Children forecasts rates to exceed its early 1990 levels by 2020 (National Assembly for Wales, 2015).

4 Child deprivation

England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
4/5	NDA	5/5	4/5	1/5	NDA	4/5	1/5	0/5	0/5

This is derived from Wolfe (2014) which looked at the deprivation rates for; children lacking two or more items, children living in single-parent families, children living in families with low parental education (none, primary and lower secondary), children living in households with no adult in paid employment and for children living in migrant families. Individual scores were combined to arrive at an overall score (supplied in the table) which was then converted to a rating. Child deprivation was particularly prevalent in Belgium and Germany who have received high numbers of migrant children. Wales was not included in this data (outside of the UK), so the Save the Children statement that a higher proportion of children in Wales live in severe poverty compared to the rest of the UK has been utilised together with its similar list of tangible indicators to arrive at a rating (Save the Children, 2017).

5 Child mortality rates

England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
3/5	NDA	4/5	3/5	3/5	NDA	3/5	4/5	3/5	3/5

Derived from Wolfe (2014) which looked at child mortality rates (0–14 years, all causes, 5- year average, 2006–2010) where the mortality rate (directly standardised) was calculated as deaths/100,000 and Starting Well who utilised the World Bank, National statistical agencies, Economist Intelligence Unit analysis where Under-five mortality rate is the probability per 1,000 that a new-born baby will die before reaching age five, if subject to current age-specific mortality rates. 5=under 10; 1=Above 40.

Data available for Wales combines England and Wales, but to give some additional context, in 2016, there were small increases in both the infant (3.8 deaths per 1,000 live births) and neonatal (2.7 deaths per 1,000 live births) mortality rates in England and Wales from 2015 but these rates remain low in historical terms (based on death occurrences). These increases can be attributed to risk factors such as the mother's country of birth, maternal age at birth of child, birthweight and the parents' socioeconomic status. The infant mortality rate has seen a downward trend from the 1990s, until 2015, where the rate began to increase. (Office for National Statistics, 2016)

6 Health/wellbeing of children

England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5	5/5

This rating was comprised from the 0-15 rating assigned within the Economist Intelligence Unit Starting Well (2012) report that considered the degree to which healthy, nourished children are coming into the system by looking at the broad socioeconomic environment, ensuring children are healthy and well-nourished when they enter preschool, and The Child Physical Wellbeing score on a scale of 1-5 assigned by Pascal & Bertram (2012) that provides a score for each country calculated using the indicators:

- Malnutrition prevalence;
- Under 5 mortality rate;
- Immunisation rate, DPT (Diphtheria, Pertussis, Tetanus).

Policy/System (Health and Education)

7 Government spending on early education/health as percentage of GD

	Wales	England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
Education		1.1	1.4	1.2	3.1	2.1	NDA	1.6	1.3	2.2	1.8
Health		3/5	5/5	5/5	5/5	3/5	NDA	1/5	5/5	4/5	1/5

This data shows a wide variation in the level of government spending in education and health. Some countries have adopted policies where the responsibility is put on the individual family rather than government spending.

Health spending: These data focus on spending on families and children's health in terms of cash benefits and benefits in kind as a percentage of GDP. The links between policy, social spending and health outcomes, such as mortality, are complex, however for the benefit of this review have been related to the relative proportions of benefits given as cash or benefits in kind. Rates of childhood deprivation, it is suggested, are determined substantially by political choices in relation to tax and benefit policies, reflecting choices about not only the overall level of support for those at greatest risk but also how this is distributed – as direct expenditure on services or as benefits in kind. Denmark and Ireland are among the highest spenders on families and children, as a percentage of GDP but Ireland distributes more through cash transfers (benefits) while Denmark spends more on services, or by the priority in defining need that is given to education, employment, or migration status.

Education spending: The OECD Report (2014) shows that public spending on childcare and early education is over one per cent of GDP in Denmark, New Zealand and the UK, but under 0.6 per cent in Germany. Preschool spending is significantly higher than spending on childcare in Denmark, the UK, New Zealand and Germany.

In New Zealand, parents cover around 25 per cent of ECEC expenses, with the government covering the remaining costs (New Zealand Government, 2016). All 3 to 5-year-olds are entitled to 20 hours of ECEC without any compulsory charges. These must, however, be claimed instead of, and not in addition to, the subsidised places.

In Germany, the situation varies between the federal states. Municipalities are in charge of organising and securing funding for early education and care provision. They co-operate with a variety of service providers, including non-governmental providers and churches, which play a particularly important role. The funding provided by the federal state governments varies, with some federal states offering free entitlement for one, two or three years before formal school enrolment. Where parental financial contributions are required, this is dependent on their income, but for a 2-year-old in care for 40 hours a week, the parental contribution equals around 20 per cent of the average wage (AW) in Germany (OECD, 2014).

8 Departmental/Ministerial ownership for health and education

The evidence indicates that in all 10 countries responsibility for education and health reside in at least two different government departments or ministries. The title of these government departments or ministries varies slightly from country to country, but generally education and health feature in the titles of the departments. In Denmark and Poland there is an integrated body for health and education but only for children under three years.

9 Legal right to ECEC/health services

The review evidence implies a clear legal right to preschool education in most countries in the review: Statutory entitlements to services for children aged 0-3 years and children aged 3 to the start of primary school. This was combined with the Starting Well data which considered the presence and effectiveness of a clear, unambiguous legislation to the right to preschool education for at least one year. 1=Yes, there is such legislation in place and it is adequately enforced; 0.5=Yes, there is such legislation in place but enforcement is weak; 0=No such legislation exists.

10 Parental leave - universal entitlements

The UK, Denmark, Germany and New Zealand all have regulations on minimum parental leave policies. The leave is usually divided into maternity leave, stipulated by the International Labour Organization (ILO) at a minimum of 14 weeks, paternity leave and parental leave, which can usually be shared between the parents (OECD Family Database). Parental leave policies differ between the case-study countries, but these do not have a real impact on the point at which children start attending preschool education or care in the case-study countries. The UK has the longest paid maternity leave entitlement, with a duration of 52 weeks, although this is paid at only 22.5 per cent of the wage (i.e. the average payment rate). Mothers in the UK receive over 11 weeks of fully paid leave (paid at 100 per cent of their earnings).

Denmark has 18 weeks of paid leave, with an average payment rate at 51.5 per cent, and over nine weeks paid at 100 per cent. But for people in employment, there is a possibility to extend paid leave to 50 weeks. New Zealand and Germany each have 14 weeks of paid maternity leave, although in New Zealand, women only get 6.5 weeks paid at 100 per cent. Paternity leave in the UK and Denmark is two weeks, but 8.7 weeks in Germany. All of the countries examined except New Zealand and the UK also offer additional paid parental leave. The average APR for parental leave is approximately 50 per cent. Taking both the payment and flexibility into account, the policies in Denmark and Germany provide families with the highest flexibility (Anders, 2015).

In Denmark, ECEC entitlement starts at 6 months of age, and the overlap between leave and ECEC entitlement allows parents to choose when they wish to go back to work (Bloksgaard and Rostgaard, 2018: PERFAR, 2014). In Germany, the first 12 months of leave are paid at a high average payment rate, after which ECEC entitlement starts. Leave can, however, still be extended for up to three years (Blum and Erler, 2016). In Germany, this is not specified, and there is a further difference between western federal states, which offer mostly part-time services, and eastern federal states, which offer mostly full-time provisions (ibid.).

11 Age in years at school start

Wales	England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
5	5	4	7	7	6	5	5	6	7	7

This evidence was compiled from a range of internet sources and shows that Ireland has the earliest start to statutory schooling; 4 countries start at 5 years and 4 of the study countries have 7 years as the age of statutory schooling.

12 ECEC/Health policy strategy

	Wales	England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
Education	5	5/5	4/5	4/5	4/5	5/5	4/5	3/5	3/5	NDA	3/5
Health	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA

The ratings here imply the extent of a comprehensive and effective ECD strategy; vision, goals, objectives, effectiveness, implementation mechanisms and regular review and improvement. The evidence reveals that most countries in the review have a fairly well developed strategy and vision at policy level for ECD. There is less evidence available in the sources used in this review of the extent of a comprehensive and effective health strategy.

13 Target groups for early intervention (health/education)

England	Ireland	Finland	Denmark	Belgium	New Zealand	Netherlands	Germany	Estonia	Poland
NDA	NDA	NDA	5/5	5/5	NDA	NDA	NDA	5/5	5/5

This rating refers to the existence at national or typical sub-national of targeted early intervention programmes (Low income families, children with special needs or disability, minority ethnic groups, language spoken at home is different to national language), at target groups for children aged from 0 to 3 years and children aged from 3 to the start of primary schooling. This evidence reveals that a number of countries have targeted intervention programmes. Other countries report that as their services are universal they do not require such targeted interventions.

The Welsh documentation argues that delivering the right support for all children, particularly those from deprived backgrounds, is the best means of breaking the poverty cycle, and raising aspiration and attainment for everyone. This underpins the Welsh Government ambition of creating prosperity for all, reducing inequality, and promoting well-being. Investing in and focusing on early years is regarded as an investment in the economy and workforce of the future (Welsh Government, 2017).

14 Enrolment/participation levels in ECEC

England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
5/5	5/5	5/5	4/5	5/5	5/5	5/5	5/5	2/5	1/5

These data are derived from Wolfe (2013) which looked at enrolment within formal care and preschool by the age of 5/6, as well as Starting Well (2012) which considered preschool enrolment ratio, pre-primary age (1 year) at 5 or 6 years. These data indicate that most countries have reasonably good enrolment levels in education and care services for children at 5-6 years. In Estonia and Poland, the numbers are lower as the schools starting age is not until 7 years of age.

15 Funding/subsidies strategy

England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
5/5	4/5	5/5	4/5	4/5	4/5	3/5	1/5	4/5	2/5

This rating looks at how far a country effectively uses subsidies to reach underprivileged families. There are two approaches to this used by the countries examined: supply side funding or demand side funding.

Supply side (Funded places subsidy, Staff salary subsidy, Capital grants, Resource grants): This refers to funding given through preschool providers to include underprivileged families. These subsidies/incentives are given to private preschool providers, and hence

target underprivileged families indirectly, but they may also be provided by the state. This indicator assesses the availability of and access to programmes and funds, and their effectiveness in terms of monitoring and outcomes.

5=There is extensive availability of government subsidies/ programmes given to preschool providers to include underprivileged families with clear qualification criteria and easy/ smooth processes to access funds, information widely available and routine monitoring of programme effectiveness. 1=There are no government subsidies/programmes for preschool providers.

Demand side (Tax credits/relief, Vouchers, Reduced fees, Family Allowances): These included those aimed at and given directly to socially or economically underprivileged families. This indicator assesses the availability of and access to programmes and funds, and their effectiveness in terms of monitoring and outcomes.

5=There is extensive availability of government subsidies/ programmes for underprivileged families, clear qualification criteria, easy/smooth process to access these, information on these are widely available there is routine monitoring of the programme's effectiveness. 1=There are no government subsidies/programmes that target underprivileged families.

The evidence shows that most of the countries in this review have either a supply or demand side strategy for targeting subsidies for under-privileged families.

16 Expectation of system outcomes

England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
4/5	NDA	NDA	4/5	NDA	NDA	NDA	NDA	4/5	2/5

This data refers to the extent to which the government has explicit expectations for child outcomes in areas of learning across ECED and PPE, including; personal and emotional development, social development, citizenship and values, attitudes and dispositions to learning, physical development and health, language development and communication skills, reading and literacy skills, mathematical

skills, understanding the natural world, science technology and digital world, expressive arts, music and creativity, second/foreign language, religious or spiritual knowledge.

The evidence shows that many countries do not specify child outcomes for learning from birth to five years. However, England, Denmark, Estonia and Poland do specify educational outcomes for this phase of the educational system. There was much less evidence in the data sets we interrogated about health outcomes for young children in the review countries.

17 Integration strategies

England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
NDA	NDA	NDA	2/5	NDA	NDA	NDA	NDA	5/5	0/5

This field considers the legislation to ensure that cultural diversity is respected in ECE programmes; prioritized access to ECE for certain cultural groups, controlled eligibility requirements for ECE programmes, additional funding, promotion of cultural diversity in ECE programmes, and staff recruitment and training. The review evidence reveals that we have little data on this to use in cross cultural comparisons.

In Wales, The Foundation Phase curriculum promotes equality of opportunity and values, and celebrates inclusion and diversity. The Well-being and Cultural Diversity Outcomes encompass, recognise and appreciate the value and diversity of traditions, cultures and languages that exist in a multicultural Wales. Where appropriate, settings/schools will need to plan and work with specialist services to ensure relevant and accessible learning experiences. For children with disabilities in particular, they should improve access to the curriculum, make physical improvements to increase participation in education and provide information in appropriate formats.

18 Workforce training health/education

England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
5/5	3/5	5/5	4/5	4/5	5/5	4/5	3/5	4/5	3/5

This feature looks at the level of trained teachers in early childhood education, the presence and scope of initial training as well as monitoring and review systems. These are all conventionally associated with high quality services within a system. The review evidence looked mainly at workforce training in early education and care settings rather than health; this shows that most countries are developing the professional qualifications and training of their early years workforce and some countries already have a highly qualified and professional workforce in place.

Health

19 Types of health services and funding (including mental health)

England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
School health services are part of the health service, but distinct and visit schools.	NDA	School health services are part of the health service, but distinct and school based. Some services are offered by primary health care	NDA	NDA	NDA	School health services are part of the health service, but distinct. School health services visit schools	NDA	NDA	School health services are part of the health service, but distinct. School based. Some services offered by primary health care

This field looks at the organisation of school health services, including Immunisation. The data for child immunisation measures the percentage of children aged 12-23 months who received vaccinations before 12 months or at any time before the survey. A child is considered adequately immunised against diphtheria, pertussis (or whooping cough), and tetanus (DPT) after receiving three doses of vaccine. *5=Above 90 per cent; 1=less than 60 per cent*

The data is patchy within the sources available; 4 of the 10 countries have school health series which are located within the health service rather than the education service and therefore not integrated fully in their work with the school staff. It is an aspect of early intervention that is developing in the study countries, but many countries remain at an early stage of integration in their delivery model.

In Wales, universal contacts cover three interventions: screening, immunisation, and monitoring and supporting child development (surveillance). These services range from families' first point of contact, the family GP, to a wide range of services including maternity, health visiting, school nursing, mental health, community perinatal mental health services as well as social services and education.

The Healthy Child Wales Programme (HCWP) will be central to the delivery of a progressive, universal service in Wales, offering a range of preventative and early interventions for different levels of need. It is supported by an updated Child Health System, a quality assurance framework that will provide assurance of the quality and effectiveness of services and Specialist Community Public Health Nurses' (SCPHN) professional practice across Wales.[1]

The Child Health System will ensure that there is accurate and comparable data collected to support improvements to child health across Wales. A health visitor's professional assessment of family resilience looks not only at the development of the child but considers wider influences such as social, economic and environmental factors and whether the child and family need additional support to address areas of concern.

[1] http://www.wales.nhs.uk/sitesplus/888/news/43724

20 Coverage of health services

England	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
7-10 antenatal appointments; Post-natal Health visitor support, 6-week post-natal check and regular child health & development reviews till age 2	Comprehensive health examination (and separate oral health examination) at 1st (7 years), 5th (11 years) and 8th (14 years) grades; basic examination once per academic year at all other grades from 2nd to 9th	NDA	NDA	NDA	Several well- care visits during school years, mostly grades 2 (5–6 years) and 7 (10–11 years) in primary school	NDA	NDA	Preschool, and at 3rd grade primary (9 years).

These data were compiled from health examinations by country and age but locating data in many of the countries was difficult using the available data sources. Health boards in Wales began implementing the HCWP in October 2016; Core components of the programme available to all families with children under 7 years of age will include: Health and development, screening and physical examination, immunisation, key public health messages, prevention of Sudden Infant Death Syndrome (SIDS), breastfeeding and healthy weaning, healthy relationships and domestic abuse, promotion of sensitive parenting, perinatal mental health and safeguarding.[2]

21 Regulatory framework/inspection/accreditation

There is little evidence about the regulatory framework for health services in the published sources used in this review. In Wales, health services are regulated and inspected by Healthcare Inspectorate Wales, with the Care Quality Commission undertaking similar responsibilities in England.

[2] http://www.wales.nhs.uk/sitesplus/888/news/43724

22 Level of integration

There is little evidence about the level of integration of health services in the published sources used in this review - see last section of main report.

Education

23 Setting types and funding

There is considerable diversity across the countries examined in the types of setting that offer ECEC, and the settings serving children aged 0-3 are often different in type and delivery model to those delivering services to those aged 3 and over. In most countries a 'split' system operates between 0-3 and 3 years and over, with Estonia, Finland and Denmark offering an integrated education service from birth to compulsory schooling.

24 Coverage of education services

Most countries in this review had comprehensive coverage of early education and care. However, there is limited evidence in the review sources on the coverage of education services, although some evidence points towards more limited coverage in areas of poverty or disadvantage as well as in rural areas when compared to urban settings.

25 Regulatory framework/inspection/accreditation

This feature includes the presence and coverage of data collection mechanisms, regular reviews and dissemination and existence of a national or sub-national body responsible for accreditation or inspection. Most countries in this review had a system of regulation and inspection, which required all settings to be registered and licensed and meet minimum requirements. The level of monitoring and scrutiny once a setting has been licensed varied significantly between the countries, with some countries having intense monitoring and scrutiny (UK and Belgium) and others less so (Denmark and Estonia).

26 Level of integration

England	Ireland	Finland	Denmark	Belgium	New Zealand	NL	Germany	Estonia	Poland
4/5	3/5	5/5	4/5	5/5	5/5	4/5	3/5	3/5	0/5

NB: It should be noted that in these 'integrated systems' health is usually not included, rather the focus is on integrating education and care services.

Responsibility for early years education and care services at national level can be either divided (split) or merged (integrated). Of OECD member countries, about half have a split system of education and care, and half an integrated system (OECD, 2014). In the countries with an integrated system (England, New Zealand) the Department of Education or its country equivalent is responsible for ECEC. In Denmark the Ministry of Children, Gender Equality, Integration and Social Affairs carries the responsibilities for ECEC and in Germany, the Ministry for Family Affairs, Senior Citizens, Women and Youth is responsible for ECEC. The Finnish ECEC is based on an integrated approach to care, education and teaching. Fulfilling both the day-care needs of small children and the educational and instructional perspective. The ECEC model of a Nordic welfare state, where care, education and instruction have been combined to form an integrated whole and where play is a central tool of pedagogical activities, sees children's day care and other systems supporting care for small children as a part of early childhood education and care.

However, some countries are now moving to integrate health and social/family care services within their early years system.

England - The Healthy Child Programme (Department of Health, 2009) and Healthy Start [3] are at the heart of public health services for children and families bringing together health, wellbeing and resilience for every child. These do have a health focus and education and care settings are encouraged to be responsible for implementing them.

Ireland - A new regional integrated health and social care service has been launched which works directly in mainstream primary schools to support children. 'RISE' (Regional Integrated Support for Education) will enable staff from the health and social care and education sectors to work closely together to help children access learning settings and enhance their development. Speech and Language Therapists, Occupational Therapists, Physiotherapists, Behavioural Therapists, Clinical Psychologists and Therapy Assistants are now attending all primary schools across Northern Ireland to provide a range of multidisciplinary child-focussed programmes.

[3] https://www.healthystart.nhs.uk/

Appendix 4: Summary of early childhood health, social care and education provision in the Phase 2 review countries not included in the case studies

Finland

At central government level, Finland places a great emphasis in both policy and legislation on universal early childhood education and care services for all children and families, regardless of region of residence or economic standing. There is also a central commitment to partnership with parents in ensuring the best start in life for all children. In terms of pre-natal support, there are visit and examination at four months for the mother, as well as for the father and the rest of family. Whole family wellbeing is assessed at this and follow up meetings and prenatal clinics provide parental training for first time parents. This service is closely linked to both maternity clinics and hospitals.

Families also receive a home visit from a midwife or nurse shortly after the birth, following which they attend a child health clinic at least nine times in the first year. After a year, visits are reduced to every 6/12 months until school age, when the school healthcare system then takes over. School healthcare system: All children are seen annually by a school nurse, with more intensive medical check-ups b being provided in years one, five and eight. The system takes a whole-child approach, and considers both physical and mental health. The latter is aimed at identifying at the earliest opportunity any emerging child mental health issues, and refer them if needed to other services such child guidance or family counselling centres or more specialist mental health services if appropriate. There has also been significant coverage of the Finnish baby box scheme, which helps to promote both support for children and equality. All first time mothers in Finland receive a box full of baby essentials, and the box can also double as a cot (supplied with bedding).

With regard to other elements of ECEC, The Early Childhood Education and Care Act came into force in the beginning of September 2018. (European Commission, 2018a). The reformed legislation includes the following key changes:

- The number of ECEC staff with a higher education qualification will be increased. By 2030, two thirds of the ECEC centres' staff must have a Bachelor level qualification. Job titles will also be reformed and clarified;
- Regulations on the transfer of information between ECEC centres, authorities and home will be changed to ease the exchange of information;
- A data base collecting information on ECEC providers, staff, families and children will be set up to support authorities in carrying out their statutory responsibilities; and to provide up-to-date, reliable, comprehensive and comparable data;
- The prevention of bullying is explicitly stated: each child must be protected from violence, bullying and harrassment.

According to the World Health Organisation, Finland's health system is complex and decentralised, and care is delivered in municipal, occupational or private facilities. The Ministry of Social Affairs and Health lays down national guidelines for social and health policy; over 300 municipalities (local authorities) are responsible for the provision of basic services, such as education, health and social care, to their residents. Municipalities fund and organise (often jointly) the provision of primary care, and form 20 hospital districts to fund and provide hospital care. At the national level, the Ministry of Social Affairs and Health is responsible for developing and implementing health reforms and policies, and it extensively relies on a network of expert and advisory bodies in its work. (WHO, 2017). However, Finland is currently embarked on long-running discussions concerning controversial proposals to reform its' healthcare services; these reforms would establish 18 new counties and shift responsibility for the provision of services from local governments to new health care regions (European Commission, 2018a and b).[4]

[4] https://www.reuters.com/article/us-finland-reforms/finnish-health-reforms-face-new-delays-after-decade-of-wrangling-idUSKCN1IX4X4

Ireland

Unlike the education system which is clearly defined, services in Ireland that provide for the out-of-home care and education of children aged birth to six years are described variously as crèches, nurseries, pre-schools, playgroups, after-school clubs, etc. This reflects the variety of purposes which are attributed to these services including caring for children of working parents and providing opportunities for early educational experiences for young children. Recent national policy initiatives have further embedded Early Childhood Education and Care within the lexicon of practice in early childhood, such as the development of:

- Síolta, the National Quality Framework for Early Childhood Education (CECDE, 2006). Síolta is designed to define, assess and support the improvement of quality across all aspects of practice in early childhood care and education settings where children aged birth to six years are present; [5]
- Aistear, the Framework for Early Learning (NCCA, 2009), which is the curriculum framework for all children in Ireland from birth to six years. [6]

The recently announced free pre-school year for children in the year before attending primary school will bring greater cohesion to the nature of children's experiences in a range of early childhood settings. The Early Childhood Care and Education (ECCE) Scheme provides early childhood care and education for children of pre-school age. The scheme is offered in early years settings (pre-schools, Montessori's, creches, playgroups) for 3 hours a day, 5 days a week, 38 weeks of the year. All children are entitled to 2 full academic years on the ECCE scheme and are eligible to start the ECCE scheme in the September of the year that they turn 3 years old.[7]

In Ireland there is a central state agency or organisation responsible for the coordination of social care support for children with complex health conditions/disabilities. The Health Service Executive (HSE) is in charge of both primary and social care.[8] The HSE is also responsible for inspecting pre-schools, play groups, nurseries, crèches, day-care and similar services which cater for children aged 0-6,

[5] http://siolta.ie/index.php
[6] https://www.curriculumonline.ie/Early-childhood/Aistear-Framework
[7] https://www.earlychildhoodireland.ie/work/information-parents/choosing-childcare/ecce-free-preschool-year/
[8] https://www.hse.ie/eng/

under the Child Care (Pre-School Services) Regulations 2006. The Children and Family Services functions of the HSE are now part of the Child and Family Agency, Tusla. Tusla was established in January 2014 and is the dedicated State agency responsible for improving wellbeing and outcomes for children. It brings together over 4,000 staff and an operational budget of over €750m, and is described as representing "*the most comprehensive reform of child protection, early intervention and family support services ever undertaken in Ireland*".[9] However despite primary and social care both being provided by the same agency, in practice links between these services are informal and have not been integrated fully; the HSE is currently configuring community-based Children's Disability Network Teams which are expected to provide care to those children with the most complex needs. These teams will provide integrated care based on needs rather than diagnosis for children with complex needs and their families regardless of the child's disability (whether intellectual or physical).

In Ireland, it is envisioned that children will access different avenues of care depending on how complex their needs are and it is expected that children with less complex needs will be treated through multi-disciplinary local primary care services. The National Disability Authority [10] is the independent state body providing expert advice on disability policy and practice to the government and the public sector.

[9] https://www.tusla.ie/
[10] http://nda.ie/

Appendix 5: Summary of comparative context for the 4 case studies

	ESTONIA	DENMARK	NETHERLANDS	BELGIUM
SIZE	Covering a total area of 45,227 km2	16,634 square miles (43,095 square kilometres	41,540 km² (16,040 sq miles)	11,780 square miles (30,510 square kilometres)
LANDSCAPE	Mainland and 2,222 islands, most of the country at or near sea level	More than four hundred islands	Remarkably flat, with large expanses of lakes, rivers, and canals	Central and northern parts covered by a dense network of medium-size and small cities
SIGNIFICANT INCIDENTS	Centuries of successive German, Danish, Swedish, and Russian rule, independence since 1991	Rapidly changed from an agricultural to an industrialized society	No major wave of industrialization but remained firmly oriented toward agriculture, trade, and service industries. Historical divide between Protestant north and the Catholic south, separated by the Rhine River.	Closing of its coal mines in the 1960s resulted in less than 60% employment by 1999
AFFLUENCE	Highest monthly salaries and the highest per capita housing allocation in the Soviet Union	High unemployment rates, especially amongst ethnic minorities. Only 15 percent	Average income after taxes is 20,000 euros ($23,160) with unemployment now at around 6%	A homogenous, wealthy society, wealth is now relatively evenly distributed, with most of the population classed as middle class

		live in rural areas, many with city jobs		
GOVERNMENT ORGANISATION	Democratic unitary parliamentary republic	Executive power lies with the monarch, while legislative power is based in the parliament.	A unitary state governed by a central body, political power lies in the hands of a cabinet of ministers headed by a prime minister.	Historically constructed within integrated social structures, or “pillars”, based on three main ideologies
POPULATION	1.3 million	5.7 million	17.1 million	11.5 million
ETHNICITY	Finnish people with a sizable community of ethnic Russians	Immigration, mainly from other Scandinavian and northern European countries	Nearly 3 million foreign residents mainly from the European Union	High percentage of noncitizens in the population, including a Jewish immigrant community in, Poles, Italians, North Africans and Turks
LANGUAGE	Estonian and Russian	Danish (derived from German)	Standard Dutch, closely resembling German	Joint official languages are Dutch and French
CHARACTER	Family and a sense of belonging is important with roots in rural, peasant values.	Rural and urban, island communities with regional traditions. Forty percent of the adult population is married, 45 percent is unmarried, 7 percent is divorced, and 7 percent is widowed.	One of the world’s most densely populated countries, two major cultural subdivisions; the Randstad (urban) and non-Randstad cultures. No strong uniform national culture, preferring diversity and tolerance of difference	One of the most urbanized and densely inhabited countries in the world, its cities contain approximately 97% of the population

SOCIAL WELFARE	Limited unemployment benefits, social security for the elderly. Universal health care, free education, and the longest-paid maternity leave in the OECD.	Comprehensive social welfare system offers unemployment, disability, and old-age benefit with free access to health care and education	Health care almost completely the responsibility of the state with universal and free early education	A very inclusive social security system. Day care and early education are funded by the Government
EMPLOYMENT MARKET	Nearly all jobs give priority to younger workers	Social strata not divided into income groups, instead, categorised according to level of education and occupation	High economic growth at the turn of the twentieth century, tax incentives, and government re-education programs had rapidly reduced long-term unemployment to record lows	Predominantly middle class, only 5 to 6 percent are living close to the poverty line.
INEQUALITY	Inequality has increased dramatically	Social inequality with twenty percent of the lowest-income families earning 6 percent of total income, while 20 percent of the highest-income families earning around 40 percent of the income. an increase in unemployed.	Open discussion of class, income, and status differences is more or less taboo in a society that strongly emphasizes equality	Wealth is relatively evenly distributed, the gender gap has decreased in recent years and wage differentials between men and woman are the lowest in the European Union.
THE ROLE OF WOMEN	Young women are given jobs in the most visible positions in the service sector	Highest percentage of women in the labour market in Europe, in home	70% of the labour force, they often work part-time (60%) and still lag behind men in terms of income and job status.	Often in part time roles, in a limited number of sectors and jobs, unemployment rates are slightly lower for women

		and family roles earning less than men		
		Constitutional monarchy with hereditary succession.	Parliamentary democracy under a constitutional monarch	Federal government resulting in six governments and six parliaments.

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