Reaching expert consensus on training different cadres in delivering early childhood development at scale in low-resource contexts

Technical Report

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Contents

Abstract

The Sustainable Development Goals (SDGs) signal a greater focus on inter-sectoral, collaborative approaches to ensuring that *all human beings can fulfil their potential in dignity and equality*. This is reflected in the current global concern with promotion of holistic, community-based programmes to support early childhood development and wellbeing – widely referred to as 'early childhood development' (ECD). Within this context, the study reported here sought to achieve consensus among 14 global experts on training needs for three groups of personnel ('cadres') involved in delivery of early childhood development (ECD) programmes. The three cadre groups, identified via a comprehensive review of literature on current issues in the provision of ECD, comprise delivery of education, health and community-based early childhood interventions across a diverse range of low-resource settings.

The study responds to a gap in knowledge on training needs for ECD cadres, associated with a serious dearth of human resources to support provision of ECD services.

Key challenges reported here, based on comprehensive review of available literature, include:

1. A long-running, *severe global shortage* in availability of cadres to support delivery of ECD programmes[1].
2. To date, delivery of key *health* and *education* interventions principally in siloes, with limited integration and practitioners/professionals/para-professionals widely employed in vertical programmes.
3. Low professional and social status of many ECD cadres, due to a lack of systematic recognition and support. This has resulted in large numbers of cadres with undefined career paths, and high rates of turnover / attrition[2].

In response, expert consensus points to the following potential strategies for enhancing provision of ECD cadres training and professional development:

1. Development of coherent systems to support ECD training and professional development.

    a. Findings indicate consensus around *commonalities among* and *distinctions between* essential skills and knowledge required for education professionals, health professionals and non-certified para-professional groups. These insights could provide a basis for establishing coherent, joined-up professional pathways and support systems for development of ECD cadres.

    b. Consensus around the respective roles of these three cadres is reflected in the distinct training needs outlined for each group. There is consensus that, while non-certified para-professionals require programme-specific training to facilitate delivery of particular tasks, certified education and health professionals require training in more advanced skills such as problem-solving and flexibility. Exposure to a range of different programmes and approaches is required for certified professionals, to facilitate informed decision making around programme development and adapting / responding to local contextual needs. These distinctions could provide a basis for

[1] Chen et al., 2004; Chiparange & Saruchera, 2016; Mahmud, 2014; Neuman et al., 2015; Rodríguez et al., 2015; Sun et al., 2015

[2] Chiparange & Saruchera, 2016; Elzinga, 2005; Gobezayehu et al., 2014; Huang et al., 2014; Neuman et al., 2015; Sun et al., 2015; UNESCO, 2007)

establishing clarity in respective roles for ECD cadres with regard to programme delivery.

c. Consensus around training needs across cadre groups is indicated, in particular the need for on-going mentoring and supervision. While there is acknowledgment among experts about complexities associated with provision of on-going support, consensus around this component of training was strongest among all aspects surveyed. This reflects widespread concern among participating experts, as well as within the literature, that short-term training for ECD cadres must be followed up with opportunities for continuing professional development and systematic support, to facilitate sustained effective practice.

2. Within systems for ECD cadres training, a strong focus on the importance of contextually-grounded programmes, materials / resources and strategies for implementation.

    a. There is strong consensus that ECD cadres training should be contextually-grounded to ensure responsive, effective provision. Training should be based on and promote careful consideration of a range of factors that shape provision of ECD, including but not restricted to, policy, budgets, available resources, local values, beliefs and practices.

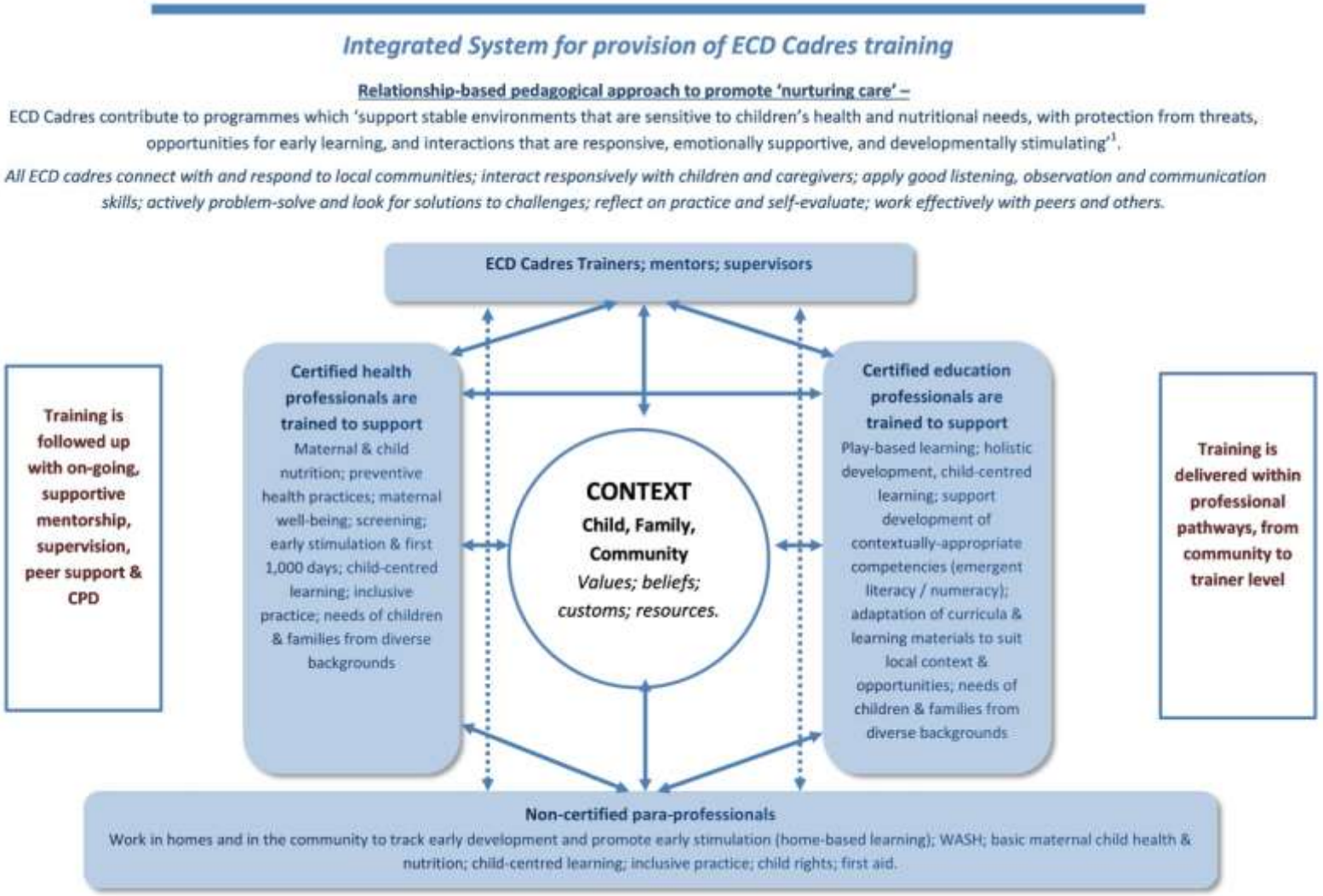
3. Adoption of the concept of nurturing care as an underpinning principle for provision of ECD cadres training.

    a. Delphi findings indicate consensus around essential dispositions[3], or attitudes, required to support caring, respectful, responsive and trustful interactions with children, caregivers and communities. They also indicate that **all** cadres require knowledge and skills in promoting early stimulation; child-centred learning and development; effective communication and collaboration; problem solving, and reflective practice.

These strategies are outlined in the proposed framework provided below, which identifies unique roles / training needs for different cadre groups, as well as opportunities for enhancing integration across ECD cadres training systems.

[3] Experts suggest that these 'dispositions', which are essential for effective provision, should be viewed as malleable. Training should work / be designed to promote, model and strengthen these characteristics.

Figure 1 – Proposed framework for integrating systems of ECD cadres training provision



[1]Britto, P. R., Lye, S. J., Proulx, K., Yousafzai, A. K., Matthews, S. G., Vaivada, T., ... Bhutta, Z. A. (2017). Nurturing care: promoting early childhood development. *The Lancet*, 13. http://doi.org/10.1016/S0140-6736(16)31390-3

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Abbreviations

CCD	Care for Child Development
CHW	Community Health Workers
CSO	Community Support Officer
DFID	Department for International Development
ECCE	Early Childhood Care and Education
ECE	Early Childhood Education
ECD	Early Childhood Development
ECDVU	Early Childhood Development Virtual University
EFA	Education for All
GER	Gross Enrolment Ratios
HAS	Health Support Assistants
IMCI	Integrated Management of Childhood Illness
IMNCI	Integrated Management of Neonatal Childhood Illnesses
ISCED	International Standard Classification of Education
LHW	Lady Health Workers
LIC	Low Income Countries
LMIC	Lower Middle Income Countries
MDG	Millennium Development Goals
MRC	Madrasa Resource Centres
NGO	Non-Governmental Organisations
ROI	Returns on Investment
SECD	The Science of Early Child Development
SDG	Sustainable Development Goals
TBAs	Traditional Birth Attendants
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization

Executive Summary

Background

Evidence outlined in this report indicates little doubt regarding the role that positive all-round development during the early years of life can play in supporting life-long well-being. In response, international agencies are calling for Early Childhood Development (ECD) approaches that involve inter-sectoral collaboration in providing integrated health, education and social welfare services to support early health, well-being and learning.

Clearly, effective implementation of ECD programmes depends on a strong, well-prepared workforce. It is therefore of paramount importance to better understand the training needs of different cadres working in the field of ECD. However, current literature on provision of ECD points to a gap in knowledge on effective provision of training and support for cadres involved in delivering ECD programmes. In response this study, commissioned by the Department for International Development (DFID), examines consensus among ECD experts on training needs for different cadres involved in the delivery of ECD programmes in low-resource contexts.

The following overarching questions guided the study:

- To whom does the term 'ECD cadre' most usefully apply, given the wide range of settings and aims of early childhood development programmes?
- What are expert views on essential knowledge and skills required of ECD cadres working in different contexts?
- What are expert views on appropriate methods for delivery of training, and post-training follow-up, for ECD cadres?
- What are expert views on the necessary conditions for effective scale-up of ECD cadres training?

Methodology

Three key groups of ECD cadres were identified via a comprehensive review of literature on current issues in the provision of ECD. These groups comprise delivery of *education* (certified education professionals), *health* (certified health professionals) and *community-based* (non-certified paraprofessional) early childhood interventions across a diverse range of low-resource settings. A Delphi study was conducted to establish expert consensus on (i) essential skills and knowledge to be incorporated in training and (ii) appropriate methodologies for training and conditions for effective scale-up, in relation to each of these three cadre groups.

This study adopted a 'classic' Delphi approach, incorporating three rounds of data collection, in order to establish expert consensus on training needs for the three cadre groups outlined above. The study benefits from a strong Expert Panel (n=14) comprising wide experience and expertise related to ECD cadres training. The Panel includes individuals with extensive front-line experience in training ECD cadres across diverse, low-resource contexts spanning the world regions, including East, Central, South and Southeast Asia and the Pacific; Central, Eastern and Southern Africa, and South America. Experts currently occupy senior leadership positions across leading international non-governmental organisations and academic institutions and / or contribute to global policy setting via membership of key steering committees.

Results

Literature review findings revealed key challenges that highlight the importance of efforts to better understand ECD cadres training needs:

1. A number of sources point to the long-running and current *severe global shortage* in availability of cadres to support delivery of ECD programmes (Chen et al., 2004; Chiparange & Saruchera, 2016; Mahmud, 2014; Neuman et al., 2015; Rodríguez et al., 2015; Sun et al., 2015).

2. There is little evidence in the literature of attempts to develop coherent mechanisms for supporting training and / or preparation of cadres working in ECD. Despite widespread, evidence-based support for integrating diverse aspects of early development policy and provision from the pre-natal and early childhood years, key *health* and *education* interventions have been delivered largely in siloes. To date, therefore, literature tends to report either on early childhood education practitioners/professionals, or community-based para-professionals working largely in vertical programmes, or to a lesser extent, health professionals who are involved in delivery of ECD components.

3. A third key challenge reported in the literature relates to the lack of status accorded to many cadres working in the field of ECD. This results in many cadres with undefined career paths working in a voluntary capacity or for payment in kind, leading to the shortages of trained, committed cadres referred to above (Chiparange & Saruchera, 2016; Elzinga, 2005; Gobezayehu et al., 2014; Huang et al., 2014; Neuman et al., 2015; Sun et al., 2015; UNESCO, 2007).

In response to these challenges, findings from the Delphi study indicate expert consensus around key training needs related to essential characteristics, skills and knowledge across the three cadre groups. Findings also provide important insights into appropriate training methods and approaches, as well as strategies for assessing the impact of and scaling-up ECD cadres training. These insights provide a basis for developing *coherent systems*, as they shed light on expert consensus around key training needs and methods, as well as necessary conditions for building enabling environments for ECD cadres training:

1. Identification of 'ECD cadres' groups

   Reflecting conventional provision of early childhood services, much of the available literature on roles and training of *cadres* involved in ECD differentiates between *'health workers'* (with recent emphasis on supplementing health / nutrition training with training on childhood development and early stimulation, to promote ECD), or *'early childhood educators'* (with recent focus on supplementing educator training with knowledge on health / nutrition and early stimulation). Across low-resource contexts, attention has focused on a further group of cadres working in ECD, *'community health workers*'. In line with these patterns, the current study adopted the following definitions / cadre groups: certified education professionals; certified health professionals and non-certified paraprofessionals.

2. Essential skills and knowledge. The Delphi findings reflect patterns identified in the literature, in that there is consensus on types of essential skills and knowledge required for cadres working within these three groups. These include both commonalities across and distinctions between the three groups.

   There is consensus that **all** cadres require skills in *promoting early stimulation; child-centred learning and development; effective communication and collaboration; problem solving, and reflective practice*. These characteristics and skills fit closely with a current emphasis on the concept of 'nurturing care' in ECD (Britto et al., 2017). They are strongly mirrored across the various aspects of ECD cadres training covered in this study: in an emphasis on training approaches that promote skills in relationship-building; cadres dispositions (please see below) to enable effective interaction with caregivers, children and communities, and mechanisms for scale-up that attend to multiple layers of provision, from the community level to national policy.

   Relatedly, findings indicate consensus around the importance of a set of key dispositions, or characteristics including *respect, openness, trust, empathy and understanding*, reflecting concern about the importance of establishing positive relationships in ECD provision. Consensus around the importance of complementary dispositions including *curiosity, sensitivity and knowledge of local context* is also indicated.

   There is also consensus around differences in the types of knowledge required for distinct ECD cadre groups. There is consensus that health professionals involved in ECD delivery must be knowledgeable about early stimulation and maternal and child health; education professionals require knowledge about child-centred, play-based learning, and para-professionals should be provided with knowledge about early stimulation, promotion of child-centred learning and WASH (Water, Sanitation and Hygiene). These reflect the types of interventions that these respective groups are currently involved in delivering.

   Also provided are insights into perceived distinctions in *responsibilities* at different levels of delivery. Whereas non-certified para-professionals require programme-specific training to facilitate delivery of particular tasks, certified education and health professionals require training in more advanced skills such as problem-solving and flexibility. Exposure to a range of different programmes and approaches is required for 'certified professionals', to facilitate informed decision making around programme development and adapting / responding to local contextual needs.

3. Appropriate methods for delivery of ECD training

   Consistent with the emphasis on skills in establishing effective relationships across stakeholder groups and communities (highlighted above), there is consensus that methods for delivery of ECD cadres training should incorporate hands-on, interactive approaches, with possibilities for on-site practice. Training for certified professionals should incorporate exposure to a range of possible programmes and approaches to delivering ECD, in order to facilitate development of skills in programme modification

and adaptation to suit local contexts. For non-certified paraprofessionals, training should be guided by specific programme objectives / curricula and should focus on equipping cadres to carry out specific tasks required for effective delivery of these programmes.

Among all components of ECD cadres training covered in the Delphi Rounds, consensus around the importance of mentoring and supervision was strongest, with the highest number of items reaching the greatest strength of agreement. There is acknowledgement among experts and within the literature, that there are challenges associated with administering effective mentoring and supervision. However, there is also recognition that training for most ECD cadres working in low-resource contexts is short-term (in contrast to the situation in more resource-rich contexts, where training tends to be longer-term). On-going support is therefore essential for ensuring that the training results in positive, sustained practice-based outcomes. .

There is consensus that provision of ECD is complex and multi-faceted and that ECD training approaches should reflect / address this. There is strong consensus that systems to support ECD training should be contextually-grounded; based on careful consideration of a range of factors, ranging from policy, budgets and available resources, to the role that local values, beliefs and practices play in supporting effective provision of ECD. Literature sources from a range of perspectives (Ng'asike, 2014; Pearson & Degotardi, 2009; Pence & Marfo; 2008; Richter et. al., 2017) reflect agreement that ECD programmes must draw on local contexts and resources to ensure relevance and sustainability. Expert consensus found in the Delphi study review supports this notion, with experts commenting in the same vein, on the need for all ECD cadres to be supported in developing skills to enable pragmatism and sensitivity in drawing on local needs and capacities to adapt materials and programmes, where needed.

4. Necessary conditions for scale-up of ECD cadres training

Key challenges for scaling-up ECD cadres training that are identified in this study reflect broader barriers associated with implementation of ECD programmes. These include widespread limitations in resources and financial commitment to ECD (Neuman, Josephson, & Chua, 2015; Rule, 2005; Sinha et al., 2015; Sun et al., 2015), resulting in critical shortages human resources with knowledge of early childhood (Mahmud, 2014; Rodríguez, Banda, & Namakhoma, 2015). Limited availability of personnel to deliver training is also reported in the literature (Yousafzai, Rasheed, Daelmans, et al., 2014).

Reflecting these challenges, there is consensus among experts that scale-up requires, at a minimum, a workforce of skilled trainers, mentors and supervisors at *all levels* of implementation, from community to national level, supported by coherent systems of support that involve both formal and non-formal sectors. Appropriate pathways for career progression and *realistic* targets for raising qualifications / capacity are also needed. These should be delivered via systems-based approaches that are administered centrally and fed through to regional, district and local levels of implementation. This reflects recent evidence from integrated ECD interventions that integrated ECD has been scaled-up most successfully in settings where comprehensive community engagement strategies have been strong (Costello & Dalglish, 2016).

1. Introduction

This Delphi study was commissioned by the Department for International Development (DfID) to examine consensus among experts in the field of Early Childhood Development (ECD) on training needs for different cadres involved in the provision of ECD in low-resource contexts. The study was conducted between January-June 2017 and involved two phases:

1. A literature review, conducted to support definition of key terms and to provide a detailed overview of current available evidence on *provision of* and *challenges associated with* current approaches to ECD cadres training in low-resource contexts;
2. Based on key issues identified through the above review, a Delphi study of expert views on ECD training, designed to examine expert consensus on: *essential content; appropriate methods and tools; approaches to follow-up monitoring*, and *conditions for scale-up* of ECD cadres training.

The overarching questions for this study are:

- To whom does the term 'ECD cadre' most usefully apply, given the wide range of settings and aims of early childhood development programmes?
- What are expert views on essential knowledge and skills required of ECD cadres working in different contexts?
- What are expert views on appropriate methods for delivery of training, and post-training follow-up, for ECD cadres?
- What are expert views on the necessary conditions for effective scale-up of ECD cadres training?

Given the current emphasis (highlighted below) on integrated, inter-sectoral approaches, understanding the different roles and training needs of ECD cadres is needed to achieve greater cohesion within systems that implement ECD programmes. These questions therefore address complexities associated with approaches to supporting early childhood education, health and care, which are traditionally characterised by provision of distinct services and limited integration.

1.1 Background

While targets for human development and education designed to alleviate global poverty outlined by the pre-2015 Millennium Development Goals (MDGs) and Education for All (EFA) triggered unprecedented growth in the provision of early childhood programmes, substantial gaps remain in 2017. Current estimates claim that about 219 million, or 39% of children in LICs (Low Income Countries) and LMICs (Lower Middle Income Countries) are unlikely to reach their full potential due to poverty and stunting (Black et al., 2017; Lu, Black, & Richter, 2017). Responses, concerned with enhancing provision of services to support early childhood development, have led to calls for changes to traditional, siloed approaches that involve discrete delivery of health, education and social welfare.

Comprehensive reviews indicate that interventions developed and implemented in line within an *integrated* framework that *combines health, nutrition, early stimulation and education* can have positive and substantial impacts on the development of children from economically disadvantaged backgrounds in low and middle income countries (UNESCO-UNICEF, 2011). These findings have been found across diverse contexts, including programmes that cater for children in conflict and emergency situations (UNICEF-WHO, 2012). Returns on Investment (ROI) studies, equally, have

found that holistic, integrated programmes can have the greatest long-term benefits for young children (Peters et al., 2016).

International agencies are therefore now promoting integrated Early Childhood Development (ECD) approaches involving partnership across multiple stakeholder groups including policy makers, early childhood practitioners, caregivers and communities. Evidence that supports ECD approaches is emergent, however, and much of it has focused on *outcomes* associated with ECD provision, rather than *processes* that support effective implementation. A strong emphasis on child outcomes in much of the ECD literature reflects a concern with providing evidence of impact. Recently, organisations and researchers have begun to turn their attention to *how* programmes are implemented, *why* they work (or do not work) and what implications can be drawn for sustainability and scaling up (Michie, Fixsen, Grimshaw, & Eccles, 2009; Pearson & Tan, 2013). Evidence suggests that a key component to effectiveness is the role of the *innovator*, or key implementer (Pearson & Degotardi, 2016; Westbrook et al., 2013). Understanding the role of key ECD cadres and how training can best support them is of paramount importance.

This study is designed to provide a starting point for such efforts, via:

- A review of current evidence on provision of and challenges associated with ECD training for different cadres, and
- Use of the Delphi technique to establish expert consensus on:
  (i) Essential skills and knowledge to be incorporated in training for different ECD cadres, as well as
  (ii) Appropriate methodologies for training, and
  (iii) Conditions for effective scale-up.

1.2 Definition of terms

ECD (Early Childhood Development)

Use of the term 'ECD' is relatively new in the field of international development. In its 2001 State of the World's Children report, UNICEF defined Early Childhood Development (ECD) as a *comprehensive approach to policies and programmes for children from birth to eight years of age, their parents and caregivers*. The definition specifically refers to the value of *community-based services* that address health, education, nutrition, water and sanitation issues in children's homes and communities (http://www.unicef.org/sowc01/1-4.htm). As Britto et al (2017, p.91) point out, immediate home and care settings provide the 'single most powerful' context for promoting early learning and development. This focus is reflected in the concept of 'nurturing care', (increasingly promoted as fundamental to effective delivery of ECD programmes), comprising a 'core set of inter-related components, including: *behaviours, attitudes, and knowledge regarding caregiving (e.g., health, hygiene care, and feeding care); stimulation (e.g., talking, singing, and playing); responsiveness (e.g., early bonding, secure attachment, trust, and sensitive communication); and safety (e.g., routines and protection from harm)*'.

ECD Cadres

Integrated ECD approaches to formalised provision of early childhood services represent a significant departure from traditional methods. Reflecting conventional provision of early childhood services, much of the available literature on roles and training of *cadres* involved in ECD is differentiated between *'health workers'* (with recent emphasis on supplementing health / nutrition training with training on childhood development and early stimulation, to promote ECD), or *'early childhood*

educators' (with efforts to 'integrate' focused on supplementing educator training with knowledge on health / nutrition and early stimulation). Across low-resource contexts, attention has focused on a further group of cadres working in ECD, *'community health workers*'. These 'non-certified para-professionals' constitute by far the most diverse group of cadres (as outlined below).

Reflecting these distinctions, for the purposes of this study, the range of cadres involved in implementation of ECD is grouped within the following 3 primary categories:

Certified Education Professionals	Early childhood educator; preschool teacher; teaching assistant (Evans & Bartlett, 2008; Sun et al., 2015a)
Certified Health Professionals	Nursing sister; nurse / health worker; physician; midwife (Jonker & Stellenberg, 2014; Mkontwana, Steenkamp, & Von der Marwitz, 2013; Yousafzai, Rasheed, Rizvi, Armstrong, & Bhutta, 2014)
Non-certified Para-professionals	Anganwadi Worker; Accredited Social Health Activists; Community Health Workers; Health Support Assistants; Home Visitors; Lady Health Worker; Traditional Birth Attendant; Community Motivator (Fernandez-Rao et al., 2014; Jonker & Stellenberg, 2014; Marfo, Biersteker, Sagnia, & Kabiru, 2008; National Health Mission Govt of India, 2013; Rodríguez et al., 2015; Yousafzai, Rasheed, Daelmans, et al., 2014)

Low-resource contexts

The evidence reported in this study pertains to provision of ECD cadres training in *low-resource contexts*. Literature reviewed reported primarily on ECD programmes operating in countries defined by the World Bank in 2017 (https://datahelpdesk.worldbank.org/knowledgebase/articles/906519) as LIC (Low-Income Countries), with some reference to examples from LMIC (Lower Middle Income Countries). Participants in the Delphi Expert Panel were also selected on the basis of their experience in LIC and LMIC country contexts.

2. Methodology

Literature Review

In line with the Terms of Reference for this study, the literature review was guided by questions (outlined on page 1) pertaining to identification of ECD cadre groups, current issues and training needs.

Literature searches were conducted using electronic databases, key journals and regional early childhood organisation websites. In order to reflect the diversity of settings, participants and objectives of ECD training, database search terms included 'ECD', 'ECD training' AND 'ECD capacity building' with 'early childhood', 'health worker', 'nutrition', 'teaching assistant', 'EC teacher', 'community-based programmes', 'parent groups', 'early stimulation', 'nutrition', 'health sector', 'emergencies', 'disabilities', 'diversity', 'policy', 'ECD packages', 'holistic development', 'evidence', 'integrated approach' and 'multi-sectoral approach'.

Initial searches were conducted via WorldCat (Bishop Grosseteste University's primary search engine). Follow-up searches were conducted via access to a range of electronic databases including Academic Search Elite, BioMed Central, the Cochrane Reviews, Google Scholar, ProQuest, PsycINFO, Psychology & Behavioural Sciences Collection and PubMed. A large number of sources were also identified through 'snowball' methods, resulting from follow-up of studies and reports included in reference lists.

Selection criteria

Given the exploratory nature of this review, literature were sought from a variety of sources, including peer-reviewed and 'grey' literature, as well as existing ECD training packages and input from research team members. The following selection criteria were used to 'screen' literature sources:

- In line with UNICEF's definition of 'ECD' outlined earlier, any type of training oriented towards a holistic, integrated or community-based approach was included.
- Studies conducted in low-resource settings, as defined earlier, covering the early childhood period (focused on children aged 0-5 years) were included.
- Sources were restricted to those that provided at least minor details about design and implementation of some aspect of ECD training.
- Studies that merely referenced ECD training, but did not provide information / insights regarding challenges, or implementation strategies, were not included.

Matrices and synopses of selected key literature sourced for the review are presented in Appendix A.

Delphi Study

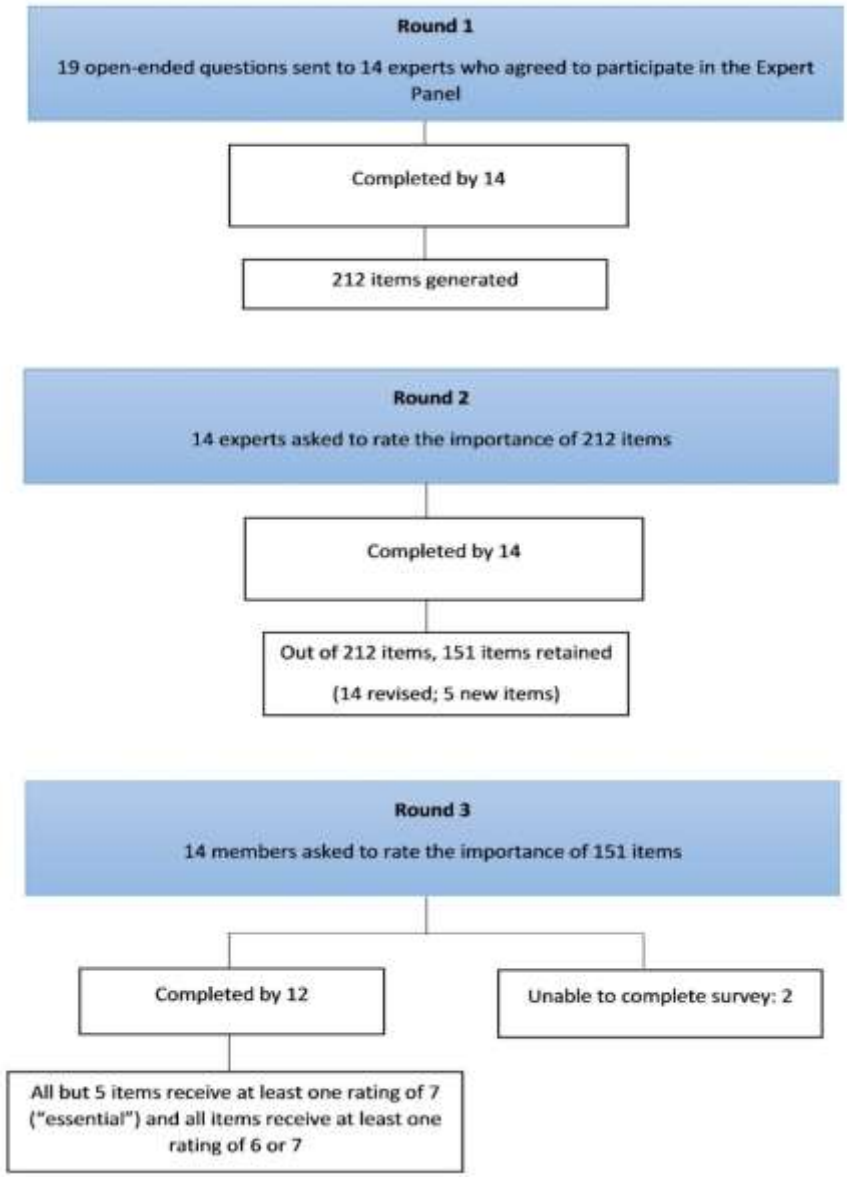
The Delphi study drew on findings from the literature, and investigated expert consensus around the following:

- Essential knowledge and skills required of ECD cadres (with reference to the three groups identified on page 3).
- Appropriate methods for delivery and follow- up of training.
- Appropriate methods of monitoring of impact of ECD cadres training.
- Necessary conditions for scale-up of ECD training.

The Delphi 'technique' is commonly used to explore areas, or issues, for which there is limited available evidence, by accessing and assessing expert opinion. Delphi techniques are designed to establish consensus, or agreement, among experts on key issues related to a particular topic. They are characterised by the following four key elements: (i) knowledge is developed through consultation with recognised experts in the field; (ii) anonymity of expert panellists is maintained during data collection, to avoid bias through pressure to conform to group consensus; (iii) the process involves several rounds of enquiry, and (iv) each 'round' is designed to support consensus building on key issues, by expanding on and refining expert responses to questions posed in a previous round (Jünger, Payne, Brine, Radbruch, & Brearley, 2017). Levels of 'consensus' are achieved via quantitative measurement of agreement among members of an 'Expert Panel' on key areas of interest.

This study adopted a 'classic' Delphi approach, incorporating three rounds of data collection (Iqbal & Pipon-Young, 2009; Yousuf, 2007). Figure 2, below, presents an overview of the three-Round process adopted for this study.

Figure 2 Overview of the Delphi process



Analysis of expert responses to the Round One survey, consisting of 19 open-ended questions, resulted in a 212-item survey for Round Two, with items measured on an 8-point rating scale (please see below) and organised around six key areas:

A. **Dispositions** (consisting of generalised items related to *all ECD cadres)*;
B. **Essential skills** (consisting of generalised items related to *all ECD cadres* as well as items specific to *certified education; certified health* and *non-certified para-professionals)*;
C. **Essential Knowledge** (consisting of generalised items related to *all ECD cadres* as well as items specific to *certified education; certified health* and *non-certified para-professionals)*;
D. **Training** (consisting of generalised items related to *all ECD cadres* as well as items specific to *certified education; certified health* and *non-certified para-professionals)*;
E. **Assessing Impact of ECD training** (consisting of generalised items related to *all ECD cadres)*, and
F. **Scale-up of ECD Training** (consisting of generalised items related to *all ECD cadres)*.

Comments boxes were provided below each item / statement for additional feedback.

A priori definition of consensus is recommended as a key component of rigour in Delphi studies (Diamond et al., 2014). For the purpose of this study, we obtained measures of both the *extent* of agreement or disagreement with statements and *strength* of agreement (please see Appendix E for further detail). Consensus was also measured by the extent of change in responses between Rounds Two and Three (as indicated in the table of results provided in Appendix F).

For the final set of items analysed at Round 3, all reached *strong consensus*, *consensus* or *low consensus*. In addition, a small number of items were identified as having reached '*consensus of disagreement*', in that a wide range in ratings of importance was recorded.

Full details for Round Two and Three analyses and results are presented in Appendix E and F, respectively. Results from Round Three are presented in Section 3.2 (Findings).

Safeguarding rigour

Transparent reporting of key considerations around *choosing the approach; identification and selection of the sample (Panel Experts); management of the process (including instrument design at each phase and communication with Panel members),* and *analysis of findings* form the basis of rigour in a Delphi process (Day & Bobeva, 2005; Hasson, Keeney, & McKenna, 2000; Jünger et al., 2017). These aspects are addressed briefly here, with further detail provided in Appendices C-F:

- Management of the process (Appendix C).
- Data analysis / survey design procedures (Appendix C, D and E).
- Full versions of Rounds One, Two and Three surveys (Appendices C, E and F, respectively).

Identification of Expert Panel

Reviews of the Delphi Technique suggest that careful selection of Expert Panel members is crucial in establishing rigour. There is little consensus within the literature on the ideal number of participants in a Delphi study, with sample sizes ranging from less than five to hundreds or more. Akins, Tolson and Cole (2005) reference Delphi studies of competence training for primary care nurses, health

promoting interventions and skills in young children involving panels of five to fifteen experts. Other reviews argue that the quality of an Expert Panel is of more importance than numbers in assessing representativeness (Hsu & Sandford, 2007; Thangaratinam & Redman, 2005).

Decisions regarding selection of the Expert Panel for this study were guided by the following considerations, based on issues identified in the literature review:

1. Representation of knowledge and experience in delivery of training to a range of *different* ECD cadres (including education, health and para-professionals) via a range of training approaches;
2. Representation of expertise from across the world regions;
3. Representation of expertise based on involvement in shaping policy at national, regional and global levels, and
4. Representation of expertise in direct delivery / implementation of training to ECD cadres.

Out of 22 experts invited to participate in this study, 14 consented to participate. All 14 completed survey Rounds One and Two. Two Panel Members were unable to complete the third Round and one opted not to complete items related to health professionals for Round Three, on the basis of expertise.

An important consideration in determining the number of rounds relates to the likelihood of sample fatigue (Boulkedid, Abdoul, Loustau, Sibony, & Alberti, 2011; Hasson et al., 2000). This issue is particularly pertinent given the high status and existing work-related demands of members of Expert Panels, and is reflected in the slight dip in responses here for Round Three.

Members of the Expert Panel formed for the purposes of this study are internationally-renowned for their expertise and contributions to the provision of ECD in low-resource contexts.

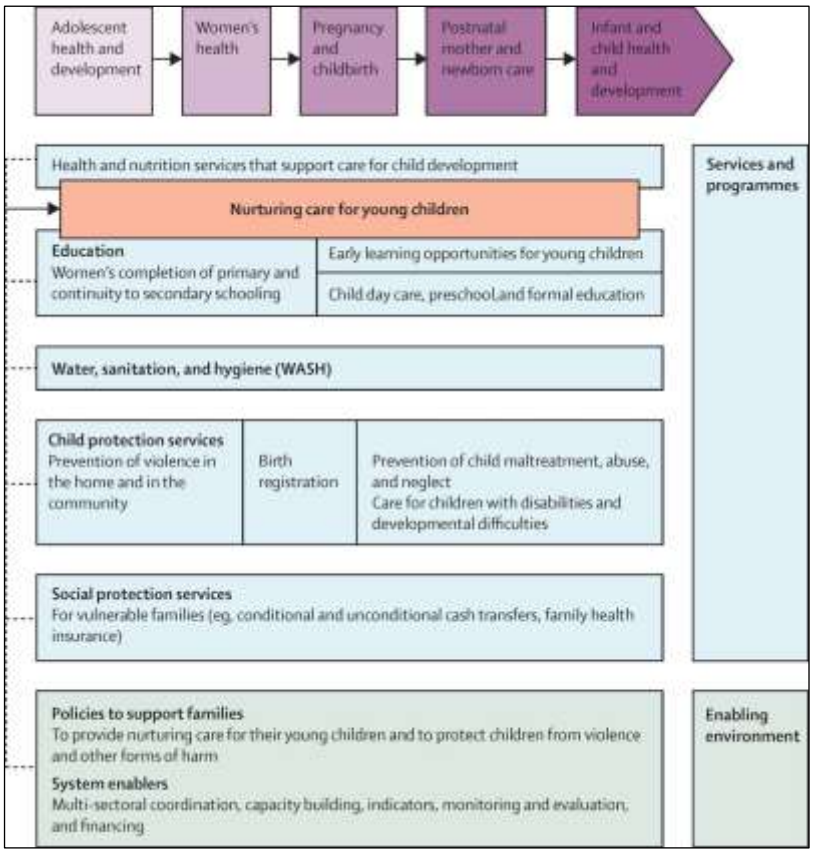
3. Findings

3.1 Literature review - Overview of current developments in 'ECD'

As outlined earlier, scholars, practitioners and policy makers working in low-resource contexts to support delivery of services that support early childhood development and care increasingly advocate multi-disciplinary and inter-sectoral approaches. This is supported by recognition that life-long learning potential can shaped as early as pregnancy by developments that impact on auditory and neural systems (Black et al., 2017), and that early psychological, physical and social well-being are interconnected in shaping young children's development (Britto et al., 2017). There is now widespread agreement that distinguishing among age groups in terms of 'health', 'care' and 'educational' provision may lead to misconstruing the nature of ECD and missed opportunities for effectively attending to the needs of both children and caregivers during this crucial period of development. Figure 3 (below), sourced from Richter et al. (2017) in the 2016 Lancet series on *Advancing Early Childhood Development: from Science to Scale* presents a framework that outlines the nature of integrated and life-cycle approaches involving various services catering for adolescents, women, newborns, young children and their families, in supporting ECD. Underpinning this multi-sectoral approach is the concept of 'nurturing care', which emphasises the important role of caregivers and communities in creating environments that provide infants and young children with responsive caregiving and positive early social interactions (Britto et al., 2017).

Figure 3 Framework to promote young children's development through a multi-sectoral approach.

Source: Richter et al. (2017)



As the framework indicates, a key development in the field is the strong and growing focus on the important role of families and communities in supporting early development (Cárdenas & Holland, 2015; Costello & Dalglish, 2016; Kingston & Siraj, 2017). In many regions of the world, and particularly in low-resource contexts, communities play an integral role in shaping children's lives and life chances, providing protective factors but also posing potential risks, for example in times of conflict. Building on and strengthening community capacity to enhance young children's early learning and development has therefore become a key focus in global early childhood programming.

Shifts in provision related to these sources of evidence have influenced the current global 'push' for integrated early childhood programmes. However it is important to note that a somewhat different and growing evidence base emanating from countries in the global South points also to a combination of cultural and more pragmatic factors that have played a part in the growing focus on community-based, integrated 'ECD' (Okonofua & Ogu, 2014). As outlined below, these include a range of localised challenges in provision of early childhood services, including severe funding constraints caused by lack of investment in primary health care services; geographic and social marginalisation, and resistance to, or lack of engagement in, formalised health-related interventions in some communities where traditional beliefs are still closely valued. A review of child health care provision in South Africa (Jonker & Stellenberg, 2014) outlines 'missed opportunities' resulting largely from lack of integration across services; over-investment in highly specialised-tertiary healthcare at the cost of preventive paediatric health care and, notably, a lack of services that

engage schools and communities in the promotion of early health and nutrition. These authors suggest that this has led to avoidable deaths in the under-five population. Similarly, Sinha and colleagues (2015) provide evidence on the basis of a systematic review, that interventions to improve breastfeeding outcomes in low resource settings have greater impact when they are delivered concurrently in community-based, home and health system settings, highlighting the important role of community-based approaches and cadres that are connected to local, contextual needs.

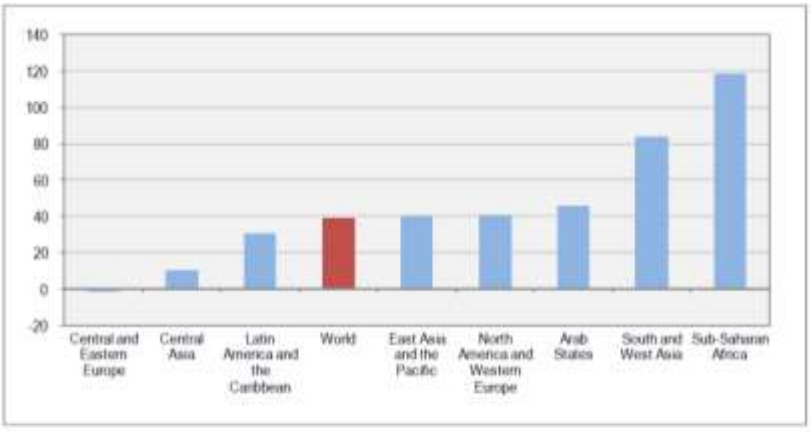
3.1.1 'ECD cadres' and current issues in provision of their training

In line with the global goals and priorities outlined earlier, literature on ECD interventions and associated training is characterised by representation of the distinct roles played by 'education' and 'health' or health-related personnel (reflecting traditional siloes in provision of early childhood services), with little evidence of a body of 'ECD cadres' who work across sectors. Recent developments in the field have resulted in recruitment of a large number of non-certified 'community health workers' on projects that are designed to support caregivers in early stimulation, as well targeting early nutrition and health needs. This section provides a brief overview of current issues in training for each of these three groups of cadres.

Education Professionals

The international focus on early childhood education and care prompted by EFA Goal 1 impelled countries to implement programmes providing formalised early childhood education. As a result, Gross Enrolment Ratios (GER's) for pre-school education increased considerably between the late 1990s and 2009, as did the number of staff employed in pre-primary education settings (please see Figure 4). Figure 4 illustrates considerable parallel growth in pre-primary staff working in low-resource settings across several regions, most notably regions of Asia and Sub-Saharan Africa. As Sun, Rao and Pearson (2015) report, however, training opportunities for these staff have been limited and diverse. While some countries have begun to institute training for early childhood teaching staff, many continue to rely on private providers and NGO's, who adopt a range of approaches with varying levels of quality. Of note, training for early childhood education cadres who work with children aged below three years is particularly limited, with staff working with this age group less likely than staff working in pre-primary settings to have completed any form of training (ILO, 2012).

Figure 4 Percentage change in total number of staff employed in pre-primary education by region between 1999 and 2009



* UNESCO-UIS estimation for many regions

Source: UNESCO, 2011d; UNESCO-UIS, 2011.

Early childhood educators (also referred to as 'pre-school teachers', 'community pre-school teachers', 'early childhood educators', 'kindergarten teachers', 'teaching assistants', 'ECD teachers') work primarily in settings that incorporate a focus on early learning and development. The nature and location of early childhood education settings is diverse, including community-owned and built spaces; facilities attached to local primary schools, religious settings and modified homes (Neuman et al., 2015). Training and qualification requirements for early childhood educators subsequently vary considerably across contexts, with training duration ranging from a few weeks to three or more years (ILO, 2012; Neuman et al., 2015).

In general, content and delivery of training for early childhood *educators* across a range of countries is heavily influenced by approaches that have been adopted in the global North, with a focus on enhancing cadres' knowledge in early childhood development and learning, organised around established areas of child development and child development milestones. These areas of focus include *cognitive; socio-emotional; motor; language and literacy* and, increasingly *hygiene / nutrition* (Abdillah & Karna, 2014; Aboud, 2010; D'Aprano, Silburn, Johnston, Oberklaid, & Tayler, 2015; Fernandez-Rao et al., 2014; Haraseb, 2011; Kelly, Ghalaieny, & Devitt, 2012; Mahmud, 2014; Petrovic & Yousafzai, 2013; Rao et al., 2012; Tinajero, 2010; Tinajero, Cohen, & Ametorwo, 2016; Vegas & Santibañez, 2011).

Health Professionals

Alongside their conventional roles, a range of health professionals such as nurses, midwives, general practice doctors and paediatricians have been involved in implementation of integrated programmes for early development and growth, such as WHO and UNICEF's Care for Child Development (CCD) package (Petrovic & Yousafzai, 2013) across LICs and LMICs during the past decade. A review of implementation strategies for CCD across multiple countries indicates that health professionals working at different levels within health care systems may be involved (Lucas, 2016). The same review provides important insights into variations across countries in health personnel employed to support integrated approaches[4]. A similarly wide range of health personnel

[4] Lucas' (2016) report includes reference (in different countries) to health workers at various tiers, including community (Anganwadi workers; Lady Health workers; Community Health Workers), and second tier district (nurses; home health visitors; clinic doctors and paediatricians), with variability across countries.

are reported to have been involved in implementation of WHO and UNICEF's IMNCI (Integrated Management of Neonatal and Childhood Illnesses) programmes.

Content of training for certified health professionals working in integrated primary health care for young children is often determined by specific interventions. For example, studies report on training for *neonatal resuscitation* (Gill et al., 2012); *early nutrition; immunisation*, and identification of / basic care for early childhood illnesses (Huicho et al., 2005). More generally, health cadres being prepared to deliver ECD programmes such as IMNCI usually receive training in elements of health and child care, such as *managing and preventing illness and basic hygiene*, so that they can provide *simple nutritional advice including pre- and post-natal feeding and the use of supplements* (Abdillah & Karna, 2014; Fernandez-Rao et al., 2014; Phuka, Maleta, Thomas, & Gladstone, 2014; Rao et al., 2012; Sri Raman, Nagar, & Joshi, 2011; UNESCO, 2007; Vegas & Santibañez, 2011).

Non-certified paraprofessionals

Initial training for IMNCI targeted trained medical personnel (WHO, 2001). However, recent reviews accessed for the purposes of this study indicate that interventions associated with this programme across a range of countries have increasingly mobilised of a body of largely non-certified community-based health workers (Bhandari et. al., 2008; Mohan et al., 2011; Penfold, Willey, & Schellenberg, 2013; Shah et al., 2014).

Non-certified para-professionals are referred to variously across contexts as Anganwadi workers; Community Health Workers; Health Support Assistants; Home visitors; Lady Health Workers; Traditional Birth Attendants; Community Motivators; Family Welfare Assistants) (Baqui et al., 2008; Fernandez-Rao et al., 2014; Jonker & Stellenberg, 2014; Marfo et al., 2008; Rodríguez et al., 2015; Yousafzai, Rasheed, Daelmans, et al., 2014).

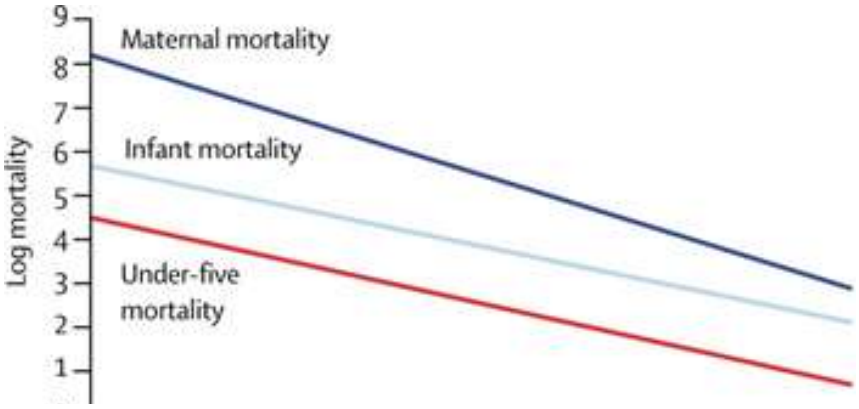
Employment of these cadres in the delivery of health and nutrition programmes for caregivers and young children is widespread and growing for a range of reasons. Among these is:

- The *serious global shortage of qualified medical staff globally* (Chen et al., 2004; Liu, Sullivan, Khan, Sachs, & Singh, 2011; Tomlinson, 2014). Figure 5 (below) highlights direct links between density of health workers and child mortality, indicating that a lack of health workers results in higher rates of maternal, infant and under-five mortality.
- Limited access to clinic-based health services among rural communities, disconnect among services and broad variability in quality and methods of provision (Baqui et al., 2008; Jonker & Stellenberg, 2014; Liu et al., 2011a; Victora et al., 2006).
- Recognition of the important role that community-based cadres can play in supporting engagement of caregivers in supporting ECD at community level (Abdillah & Karna, 2014; Barry et al., 2014; Mohan et al., 2011; Yousafzai, Rasheed, Daelmans, et al., 2014).
- The establishment of trustful, productive relationships that community-based health workers have been found to effectively support, resulting in greater engagement among programme beneficiaries (Abdillah & Karna, 2014; Barry et al., 2014; Cortis, 2012; Jokhio, Winder, & Cheng, 2005; Liu et al., 2011). Such relationships are particularly important in supporting delivery of interventions for children with disabilities (McConachie et al., 2001). Similarly, in situations where cadres are working with families affected by conflict, an emphasis on relationship-building is crucial (Murphy, Maignant, Boone, & Smith, 2015).

Despite widespread employment of community-based para-professionals that support ECD in various forms, there is little evidence that their role has become formalised, either in policy or in

Figure 5 Links between availability of cadres and maternal / child mortality rates

(Source: The Lancet 2004 364, 1984-1990DOI: (10.1016/S0140-6736(04)17482-5)



systems of delivery. Searches for the purposes of this review revealed that, while the UNESCO International Standard Classification of Education (ISCED) refers to 'pre-school teachers', there is no apparent mention of 'community health workers', or auxiliary medical staff, let alone 'ECD cadres' (UNESCO UIS, 2013). This gap is discussed elsewhere, with regard to difficulties in both defining and documenting the role of community-based health workers (The Frontline Health Workers Coalition, 2013). It is also reflected in the concept of 'task-shifting', which describes strategies that involve volunteer community-based workers informally taking on roles traditionally performed formally by professional health care providers, with little enhancement in status (Gobezayehu et al., 2014; Huang, Nakigudde, & Brotman, 2015).

The lack of systematised approaches to identifying or supporting these cadres can be partially attributed to the nature of vertical programme implementation. This results in training for workers provided at the level of local delivery and limited to specific programmes, rather than being oriented towards institutionalised, defined roles with broader, skilled status. As Elzinga (2005) points out, the risk of this approach is that workforce growth and planning broadly become disjointed and inconsistent, impacting negatively on sustainability and quality of the ECD workforce. Risks associated with over-burdening ECD cadres whose roles are not clearly articulated, as well as challenges associated with remuneration and on-going support, have resulted in high attrition rates (Penfold et al., 2013; Rodríguez et al., 2015; Tomlinson, Rahman, Sanders, Maselko, & Rotheram-Borus, 2014).

While there is debate about the effectiveness of primary health care messages, specifically life-saving interventions such as neo-natal resuscitation, delivered by non-certified professionals (Bang, Reddy, Deshmukh, Baitule, & Bang, 2005; Carlo et al., 2010; Gobezayehu et al., 2014), there is some evidence to suggest their potential contribution to ECD services (Barry et al., 2014; Jokhio et al., 2005; Liu et al., 2011; Mukanga et al., 2011; Nadjm et al., 2008; Penfold et al., 2013). Community health workers in Indonesia have been found to be instrumental in reviving non-functioning local early child health centres that had folded due to low community engagement and a lack of follow-up by District Health Officers (Abdillah & Karna, 2014; Aboud, Proulx, & Asrilla, 2016). Evidence that non-clinical personnel working outside facility settings can deliver effective ECD interventions is also reported in Bangladesh (Penfold et al., 2013) and Pakistan (Yousafzai, Rasheed, Daelmans, et al., 2014). Traditional Birth Attendants and CHWs in rural parts of Ethiopia and Pakistan are acknowledged for the community-wide respect accorded to them (Barry et al., 2014; Jokhio et al.,

2005) and for their potential, following appropriate training, in being able to diagnose illnesses such as malaria and pneumonia in rural Uganda (Mukanga et al., 2011). Although there is some debate about the impact of community health workers on reduced maternal and infant mortality rates, research in Zambia also points to positive outcomes and potentials for these, where appropriate training is provided (Gill et al., 2012).

Numerous calls to strengthen community care (Arifeen et al., 2009; Arifeen et al., 2004; Fernandez-Rao et al., 2014; Huicho et al., 2005; Tomlinson et al., 2014) indicate that more intensive training for non-certified paraprofessionals such as these would result in stronger positive impact.

3.1.2 Key considerations in provision of training for different ECD cadres

As evidenced above, programmes for which ECD cadres play a key role in delivery are diverse, implemented across a wide range of contexts and introduced in relation to different policy priorities. Training for ECD cadres is equally varied, within and across cadre groups. However, key points of note that reflect this diversity in roles and work settings are discernible within the literature. As outlined below, these include the importance of a clear curriculum; contextualisation of training materials and approaches, and interactions during training that model the importance of relationship-building. These are summarised below.

Adapting curricula and ECD cadres training to local culture and context

In terms of general principles related to content of ECD training, the importance of a *structured curriculum* and / or clear programme goals, in ensuring quality in ECD programming (and, by association, to guide training) is highlighted in the literature (Aboud, 2010; Yousafzai & Aboud, 2014). Also emphasised, however, is the importance of ensuring that programmes and curricula are relevant to the particular contexts in which they are being implemented, that they are practicable, and that they are implemented systematically (Richter et al., 2017). Challenges associated with training that prepares cadres to deliver a curriculum (and associated resources) which is subsequently not available and / or not relevant or appropriate are reported (Chiparange & Saruchera, 2016). Hamadani and colleagues (2014) report, for example, that implementation of the Jamaican early childhood home visiting programme in Bangladesh required adaptation, because the original programme did not account for a lack of resources and mobility among mothers in Bangladesh. The programme was successfully adapted so that opportunities for mother-infant interaction were built into mothers' daily routines.

Similar concerns about the importance of attending to contextual factors in content of training (for ECD cadres and for recipients of the interventions that they subsequently deliver) are widely reported. Pence and Marfo (2008) and Ng'asike (2014) make the point that curricula are most effective when they are culturally-responsive and fit closely with children's and adults' existing knowledge and experience.

The importance of drawing on and being aware of local customs and beliefs is also made in relation to ECD interventions more oriented to health and nutrition, by studies that report both opportunities and risks associated with localised beliefs. Research into community management of intellectual disability in Pakistan found that traditional healers were an important source of guidance and comfort for many carers (Mirza, Tareen, Davidson, & Rahman, 2009). Lingam and colleagues (2014) found that traditional beliefs can support delivery of health-related messages, but also note that it is equally important to be aware of, and address, entrenched beliefs that may contradict messages such as the importance of breastfeeding during the first few days after childbirth. Likewise conversation and responsive feeding may not be perceived by parents as important caregiver

practices. Training for Anganwadi workers implementing the ICDS programme in India is often residential, and involves a strong emphasis on supporting participants to gain a clear understanding about the 'theory of change' behind the interventions that they are implementing, in order to promote a sense of ownership and connection.

The implication of these findings is that effective training of cadres involved in delivery of ECD requires availability of contextually appropriate and relevant curricula, or programme guides, on how to frame content and delivery of ECD cadres training.

Building relationships

In line with the growing focus on 'nurturing care' in delivery of ECD programmes, across the board, there are calls for greater focus on developing skills around relationship-building in training for ECD cadres, to support work with parents and communities (Abdillah & Karna, 2014; Aboud, 2010; McConachie et al., 2001; Petrovic & Yousafzai, 2013; Yousafzai, Rasheed, Daelmans, et al., 2014). As current evidence reported earlier suggests, ECD cadres working across a range of contexts play a crucial role in establishing strong linkages within and across communities. However, as Yousafzai et al. (2014) point out, the importance of building relationships and establishing / strengthening networks is not emphasised in traditional training for professionals working in health or education settings. Indeed, the relationship-building approach to service provision and intervention required of integrated ECD approaches presents particular challenges for health workers, as conventional medical models of provision tend to perpetuate deficit approaches. These tend to assume that parents and families require educating *out of* existing customs and practices, whereas integrated approaches that encourage early stimulation, parental confidence and self-efficacy require practitioners to *work with and build on* current practices. As Yousafzai and colleagues note (2014), achieving the types of partnerships between families, communities and different cadres of ECD workers that is needed for effective implementation of integrated, child-focused interventions requires a paradigm shift in training and preparation.

Box 1 provides an overview of key recommendations for ECD cadres training, drawing on available literature. Much of the literature on ECD approaches tends to focus fairly exclusively on issues around early nutrition, health, safety and psychosocial stimulation. However, in considering training needs for ECD cadres in the context of the Sustainable Development Goals (SDGs) it is important to note related priorities around efforts to promote peace, stability, human rights and social justice that are increasingly influencing early childhood interventions. These components could be offered as specialist modules, in addition to core training.

Box 1 Overview of key recommendations for ECD cadres training across different contexts

- Training needs to be supported by a structured curriculum and / or clear programme goals that are fully understood by participants / delivery agents. Training is supported by contextually-appropriate training packs, materials, as well as clear standards for trainers (Aboud, 2010; D'Aprano et al., 2015; Fernandez-Rao et al., 2014; Kelly et al., 2012; Mahmud, 2014; Petrovic & Yousafzai, 2013).
- Training should integrate health, early pedagogy, parenting and care messages (Petrovic & Yousafzai, 2013).
- Training should build on existing knowledge and skills of cadres and addresses any conflicts between advocated and existing practice – for example, feeding practices; helping caregivers include new practices in their daily routines, helping caregivers integrate health and development practices simultaneously rather than as separate components of caregiving (Abdillah & Karna, 2014; Ahuja, 2016;

Hamadani et al., 2014; Lingam et al., 2014; Yousafzai, Rasheed, Daelmans, et al., 2014).

- Training should focus closely on the skills needed by ECD workers, such as organisation and record keeping, active listening, counselling skills, modelling, problem solving, interaction with children and parents and inter-sectoral communication with other agencies (Fernandez-Rao et al., 2014; Huicho et al., 2005; Kelly et al., 2012; Taylor & Kvalsvig, 2008; UNESCO, 2006).

- Monitoring and evaluation mechanisms should be built into training programmes (Costello & Dalglish, 2016).

- Training materials and modules should be as simplified as possible (e.g. in the case of IMNCI, recommendations to reduce the current 6 modules to one key booklet) (Costello & Dalglish, 2016).

- Selection of personnel should involve local stakeholders (Abdillah & Karna, 2014; Fernandez-Rao et al., 2014; Haraseb, 2011; Petrovic & Yousafzai, 2013; Yousafzai, Rasheed, Daelmans, et al., 2014).

- Training should be as accessible as possible across geographical locations (Abdillah & Karna, 2014; Gobezayehu et al., 2014; Kelly et al., 2012).

- Play and early stimulation activities should be promoted and linked to relevant guides in an ECE curriculum or ECD framework. (Fernandez-Rao et al., 2014; Petrovic & Yousafzai, 2013; Sri Raman et al., 2011; Sun, Rao & Pearson, 2015; UNESCO, 2007).

- ECD cadres should receive on-going CPD, supervision, mentoring as well as modelling of parent-child interactions on the ground in real contexts to support practice once they have received basic training (D'Aprano et al., 2015; Fernandez-Rao et al., 2014; Petrovic & Yousafzai, 2013; Rao et al., 2012; Sun, Rao & Pearson, 2015; Yousafzai, Rasheed, Daelmans, et al., 2014).

- Training should provide opportunities for trainees to develop skills in interaction with mothers and children, in order to assist them (both trainees and mothers) in reducing inhibitions (Hamadani et al., 2014; Singla, Kumbakumba, & Aboud, 2015; Yousafzai, Rasheed, Rizvi, et al., 2014)

- Additional training in developmental differences may be required for ECD cadres who are working with families of children with developmental delay or diagnosed disabilities, to include specific ways of supporting children with different needs such as sensory activities or simple physiotherapy exercises (Kelly et al., 2012).

Synthesis of issues

The global dearth in human resources has serious implications for delivery of effective ECD, in terms of both access and quality. The lack of coherent systems for provision of training results in low levels of qualification (particularly for cadres working in education settings and for non-certified, community based cadres), hence lower status and lower pay (in many cases, pay in kind or voluntary employment), and an undefined career path. This, in turn, results in a shortage of trained, committed cadres (Chiparange & Saruchera, 2016; Neuman et al., 2015; SEAMEO / UNESCO, 2016; Sun, Rao, & Pearson, 2015b; UNESCO, 2007). There is also strong evidence that positive programme impacts are determined by clarity about the specific roles of these cadres, reflected in appropriate, effective training (Okonofua & Ogu, 2014; Puett, Coates, Alderman, & Sadler, 2013).

As outlined earlier, integrated approaches to formalised provision of early childhood services represent a *significant departure from traditional methods,* which across a range of countries and

contexts have tended to separate health, social support and education policy and provision. Available evidence on implementation of fully integrated ECD interventions and programmes is therefore relatively scarce. Evidence on training of various cadres involved in delivery of 'ECD' tends to reflect preparation of *either* 'health workers' to incorporate more parent- and child-focused approaches in their practice (Yousafzai, Rasheed, Daelmans, et al., 2014) *or* 'educators' to become more aware about involving community members, and promoting health and nutrition, *or*, more recently, non-certified para-professionals supporting community-based approaches.

What evidence there is indicates that:

(i) Integrated programmes work best 'when there is stability, consistency, and systematization in multisector and coordinating group participation' (Tinajero, 2010, p.30),

(ii) there is a need to consider how best to provide training in these inter-related components for various cadres involved in services that support ECD (Richter et al., 2017; Tomlinson, Swartz, & Landman, 2003; Yousafzai, Rasheed, Daelmans, et al., 2014) and

(iii) work to integrate across sectors in provision of ECD needs to incorporate efforts to clarify the roles of various ECD cadres involved in implementation of programmes (Jonker & Stellenberg, 2014; Mkontwana et al., 2013).

Tomlinson (2014) highlights several reasons to support urgent calls for up-grading and up-scaling ECD cadres to enhance integration of programmes. As he points out, many programmes rolled out by government or development agencies to support early childhood are (i) vertical in nature (they target specific issues, such as HIV or maternal well-being or infant nutrition or child development, with little integration across programmes); (ii) they have limited 'reach', because they target specific regions and communities, and (iii) they have finite funding, threatening sustainability. Supporting the development of cadres of trained, skilled workers whose role is institutionalised within coherent systems of training delivery, and who can be engaged across such programmes, could potentially support not only skills development and capacity building among ECD cadres, but also stronger integration and greater coherence across programmes.

3.2 Delphi Study – Expert consensus on training needs of ECD cadres

This section presents findings from the Delphi study. Findings from each of the six sections, including tables presenting all items that secured *strong consensus* or *consensus* based on the criteria outlined in Appendix E are then summarised. Open-ended comments provided by Experts Panel members and evidence from the literature are drawn upon to provide brief implications / interpretations for each section. A synthesis of key findings and implications follows.

3.2.1 A. Dispositions

Level of Consensus reached	All ECD cadres need to demonstrate:
strong consensus	Treats children with respect
strong consensus	Shows empathy and understanding of children and families
strong consensus	Caring
strong consensus	Open to feedback and others' ideas
strong consensus	Respectful of diverse groups
strong consensus	Elicits trust and respect from community
consensus	Patient
consensus	Knowledgeable and sensitive to local context
consensus	Sensitive to needs of target group
consensus	Curious and eager to learn / motivated
consensus	Open to possibilities for changing / enhancing practice to better suit the needs of children and families

Items in this section refer to <u>all</u> cadre groups, reflecting consensus around **common dispositions**[5] and characteristics that should be supported via training for **all ECD cadres**.

Views of the Expert Panel support the current focus on promoting **relationship-building** among ECD cadres, communities and caregivers, reflecting the concept of **'nurturing care'** outlined in the 2016 Lancet Series (Britto et. al., 2017). Open-ended responses indicated that Experts also view an **emphasis on relationships** in training as positive for developing confidence:

'Learning is social. Building teams of trainers that care about and trust each other is as important as training for content. People need to take risks, experience the power of making a difference with their lives.'

There is consensus on the importance of contextualisation of training, also reflecting current contentions about effective delivery of ECD:

'Respect [and empathy] for children is fundamental. However, ways in which children are understood and adults' roles with children vary. (Understanding this..) is grist for effective and useful education.'

I think that sensitivity to local contexts is important as it serves as the basis for building relationships with the community.

Important to note from open-ended responses is Expert caution around social-hierarchies that may act as a barrier to changing attitudes within the community, based on an example of challenging cultural expectations when social compliance is valued over curiosity and exploration by children:

[5] As noted by members of the Expert Panel, 'dispositions' should be viewed as malleable. Training should work / be designed so that these dispositions can be promoted and modelled.

'There needs to be a balance between being sensitive to the needs of the target group and delivery of best practice process and content', which needs to be fostered to create appropriate approaches to learning'.

3.2.2 B. Essential Skills

Essential Skills - all cadres; education professionals; health professionals; non-certified para-professionals

Level of Consensus reached	All ECD cadres need to be able to:
strong consensus	Interact responsively with children
strong consensus	Apply good listening, observation and communication skills
strong consensus	Interact responsively with parents
strong consensus	Actively problem-solve and look for solutions to challenges
consensus	Work with and involve parents
consensus	Reflect on practice and self-evaluate
consensus	Work effectively with peers and others

There is agreement on both **commonalities** across and **distinctions** between cadres groups with regard to Essential Skills:

Commonalities include a set of skills to enable responsive interactions with children and caregivers and flexible, reflective approaches that facilitate effective programme implementation.

Level of Consensus reached	Certified education professionals need to be able to <u>also</u>:
consensus	Modify practice for individual children's needs
consensus	Apply creativity in developing learning plans and resources
consensus	Demonstrate strong language skills
consensus	Facilitate effectively articulate complex ideas in simple ways
consensus	Connect with parents, families and communities
consensus	Work with local community members and value their views

Specific skills required for *education professionals* include abilities to facilitate adaptation and modification of programmes and techniques to suit children and contexts and, in line with the dispositions identified earlierS; strengths in developing relationships with families and communities. As one Expert commented, *context-dependent* skills (e.g. minority language skills) and others dependent on a programme's theory of change are also important to consider.

Level of Consensus reached	Certified health professionals need to be able to <u>also</u>:
Strong consensus	Coach effectively instruct and mentor others
consensus	Track / monitor children's development, as well as physical needs
consensus	Facilitate effectively articulate complex ideas in simple ways
consensus	Connect with parents, families and communities
consensus	Use dialogue to communicate, rather than just instruction
consensus	Sensitively and effectively influence and challenge perceptions or customs that are counter to child rights
	Work with local community members and value their views

There is consensus among Experts that certified health professionals require skills in supporting others in the profession, as well as effective delivery of key messages to caregivers. As one Expert noted:

'This is a huge challenge in my experience; there is a great deal of 'expert' instruction rather than dialogue'. This comment reflects concerns raised in the literature regarding the tendency for medical professionals to be trained in *the treatment of*, rather than working with, caregivers.

Level of Consensus reached	Non-certified para-professionals need to be able to <u>also</u>:
consensus	Make use of available resources to model/set up language-rich, stimulating environments for young children
consensus	Connect with parents, families and communities
consensus	Modify practice for individual children's needs

For non-certified para-professionals, essential skills are more rudimentary, including responsiveness to contextual needs and effective use of available resources to support effective programme implementation.

The distinctions in skills across cadres groups provide some indication of different expectations of 'professionals' and 'para-professionals'. For example, there is consensus that education and health professionals should be able to 'facilitate', 'influence' and work with community members to develop their practice. In addition, there is strong consensus that health professionals should be able to 'coach' and 'mentor' others, whereas the focus for para-professional is on more straightforward implementation in situ. This is supported by literature on limitations in the extent of interventions that informally-trained ECD cadres can be expected to implement (Carlo et al., 2010; Okonofua & Ogu, 2014; Sibley, Sipe, & Barry, 2014).

This reflects recognition that para-professionals may not yet be in a position to take on the role of adaptation and change in programming, and that training should focus on skills for implementing guidelines in situ, providing important initial insights into consensus on *profiles* for different cadres that could be developed as part of a coherent ECD training system.

3.2.3 C. Essential Knowledge

Essential Knowledge - all cadres; education professionals; health professionals; non-certified para-professionals

Level of Consensus reached	<u>All trained</u> ECD cadres need to know about:
strong consensus	The importance of quality interactions for infant and child development
strong consensus	Principles of holistic child development (multiple domains)
consensus	Child development milestones (applied appropriately across diverse cultural contexts)
consensus	Home and family context impacts on learning and development
consensus	How to respond sensitively to parents and establish positive, trusting relationships
consensus	How to identify possible signs of developmental delay and refer children to appropriate professionals/support
Revised item	*How to locate and work with other sectors in the community (health; education;*
consensus	*welfare and others as appropriate to context / cadre)*
consensus	Child rights in the early years
consensus	How to monitor children's progress

Again, reflected in this set of items is consensus on both **commonalities** across and **distinctions** between cadres groups with regard to Essential Knowledge:

Strong consensus around the importance of knowledge on relationships and child- and family-centred approaches **for all cadre groups** is reflected in this Section. There is also consensus that all ECD cadres should know about child development milestones (as applied to their own context); the importance of home and family contexts in shaping early development, and identification of possible signs of developmental delay.

Important to note here are open-ended comments that reflect concern among Experts about the need for child development milestones to be adapted to /considered in relation to cultural context. A note was also made that ECD cadres need to understand the 'uneven nature of development across domains' and to be aware that universalised child development milestones may need to be adapted to have relevance in their own context.

Level of Consensus reached	Certified education professionals also need to know about:
strong consensus	Play-based learning approaches and their importance for children's holistic development
consensus	How to plan learning experiences/adapt curriculum to fit individual children's needs
consensus	How children learn / child-centred learning approaches
consensus	Classroom management strategies for large and small groups of children
consensus	How to balance / combine play and directed learning
consensus	Early childhood competencies and learning activities/experiences that support these
consensus	How to provide a range of learning experiences including varied themes and areas of learning
consensus	How to identify and support emergent literacy and numeracy skills
consensus	How to develop new activities and materials
consensus	How to adapt curricula to suit local contexts
consensus	How to appropriately support children and families from diverse backgrounds

Specific to certified education professionals, strong consensus on the importance of knowledge about play-based approaches and their role in supporting children's development was achieved. Agreement on the importance of adapting curricula to local needs and interest is, again, emphasised, as is supporting families from diverse backgrounds .

Level of Consensus reached	Certified health professionals also need to know about:
strong consensus	Maternal and child nutrition (breastfeeding support; infant feeding support)
strong consensus	Early childhood health and nutrition
strong consensus	Identification of high risk pregnancy and referral actions
strong consensus	Preventive, promotive health practices and care for young children and families
strong consensus	Parenting and early stimulation for supporting early learning and development
strong consensus	Signs of maternal depression and appropriate support, including referrals
strong consensus	Identifying developmental delay in infants and young children, and providing appropriate referral advice
consensus	Maternal and newborn health needs
consensus	The long-term impact of development during the early years of life
consensus	The significance of the first 1000 days for later development (including evidence on early brain development)
consensus	How children learn / child-centred learning approaches

consensus	How to support and promote care during pregnancy in home-based settings
consensus	Principles of inclusive practice
consensus	How to appropriately support children and families from diverse backgrounds
consensus	How to provide neonatal care in home-based settings
consensus	How to provide neonatal care in facility-based settings

For certified health professionals, there is strong consensus on the importance of knowledge on aspects of development that reflect current evidence on the importance of maternal health and early stimulation in the early years of life outlined in the literature review (Britto et al., 2017). Principles of inclusive practice, supporting families from diverse backgrounds and provision of neonatal care in a range of settings are also considered essential knowledge for health professionals working in the field of ECD.

Important to note is consensus around training to support not only knowledge on maternal and child nutrition and health, but also knowledge about supporting holistic well-being, including how to recognise signs of maternal depression. Recent studies of maternal health and its potential impact on children's development indicate that interventions to support maternal well-being also benefit children (Black & Surkan, 2015).

Expert feedback also indicates that health professionals need to understand the *connected elements* of child development, early learning, nutrition, stimulation and parenting, and be able to support these through work with other sectors.

Level of Consensus reached	Non-certified para- professionals <u>also</u> need to know about:
strong consensus	How to support and guide mothers and primary caregivers in providing early stimulation and warm, responsive care giving
strong consensus	The importance of early stimulation and responsive caregiver / child interactions
consensus	Parenting and early stimulation for supporting early learning and development
consensus	How children learn / child-centred learning approaches
consensus	Provision of first aid
consensus	WASH (Water, Sanitation & Hygiene) guidelines
consensus	How to appropriately support children and families from diverse backgrounds
consensus	Principles of inclusive practice

For para-professionals, there is consensus around a need for knowledge on supporting and guiding mothers and caregivers in responsive caregiving and early stimulation, as well as first aid and knowledge of WASH and principles of inclusive practice. Items reaching consensus reflect recognition of the likelihood that non-certified para-professionals work very closely with and in households to promote home and community environments that are conducive to early learning and development. This set of findings provides valuable insight into the types of work and skills that characterise this cadre of ECD workers.

3.2.4 D. Training – Systems and delivery

Systems – all cadres

Level of Consensus reached	Applicable to all ECD cadres:
strong consensus	There should be opportunities for both pre-service and in-service training for all ECD cadres
strong consensus	There should be clear professional / training pathways for all ECD cadres
strong consensus	Training for all cadres should incorporate a strong field-based component, where trainees / candidates spend part of their time receiving instruction in formal settings, followed by implementation of what they have learned in their

	respective professional settings
Consensus of disagreement	*Training should be centralised and administered by government*

The strong consensus around availability of professional pathways, facilitated by opportunities for both pre- and in-service training, fits calls within the literature for flexible approaches. Importantly, this also provides a basis for developing training systems to support delivery of ECD. Strong consensus around the need to include 'field-based' components in ECD training supports consistent indications that an essential aspect of training for ECD cadres is the provision of opportunities for site-based practice, supported subsequently by on-going monitoring and supervision.

In open-ended responses, Experts further indicated that it would be desirable to offer some *shared learning*, providing opportunities for the different cadre groups to interact. Some Experts highlighted the advantages of building a common understanding across the sector, whilst others emphasised the need for specific subject matter relevant to different groups.

Notably, there is consensus that, at least for now, training should *not* be centralised. Open-ended responses provide some insight into this view:

'Training and professional standards do not always align easily because of different contextual needs and programmes. Standards often need to be more flexible'.

'Mixed administration for training appears to be preferable at least until countries have developed the capacity to centralise this role. Collaboration between Govts and NGOs will be needed in this process'.

'In my country experience this [Government centralisation] has led to the erosion of a thriving and deeply experienced NGO training sector while inexperienced government institutions are struggling to offer quality training'.

Similarly, poorly implemented top-down approaches that do not attend to the needs of local contexts are viewed within the literature as unlikely to support effective training or delivery of programmes (Mangwaya, Blignaut, and Pillay, 2016). These authors also point out that mandating qualification requirements for ECD cadres without ensuring that local infrastructures to support training are fully developed is unlikely to be successful. In Uganda, attempts to streamline ECD training provision to formalise qualifications and training have been problematic, with tutors and principals of ECD training providers in one study reporting that only 11.7% of the tutors had ECD training themselves. Large numbers also reported limited access to reference books (94.3%) or teaching aids (88.6%) (Ejuu, 2012).

Mentoring and supervision – all cadres

Level of Consensus reached	**Applicable to all ECD cadres:**
strong consensus	Supervision and monitoring should be delivered in a non-threatening manner
strong consensus	Observations of practice as part of supervision should be followed up by dialogue and reflection sessions
strong consensus	Training should be followed by on-site, on-going mentoring and supervision
strong consensus	Effective supervisor training is critical for programme success
strong consensus	Supervisors should be experienced

strong consensus	Training on its own is far less effective than training that is supported by follow-up supportive supervision
consensus	Systems of supervision and monitoring should provide opportunities for regular sharing sessions with peers
consensus	Supervision and monitoring should promote self-monitoring and reflection (for example, via self-monitoring guidelines)

Ratings of importance for this set of items reached the highest level of consensus out of all the aspects of ECD cadres training surveyed, indicating strong agreement that this constitutes an essential aspect. Supervision and monitoring are crucial because, as one Expert explained:

'Available human resources, trained or untrained is a challenge in low resource settings. We need to explore more systems where teachers meet on a regular basis to discuss their teaching practices and receive feedback from others'.

Monitoring and supervision form key aspects of some of the most successful ECD programmes (for example the Aga Khan Foundation's Madrasa ECD Programme) catering for children in low-resource contexts. However Experts' open-ended responses also acknowledged challenges around this aspect of training, specifically in terms of capacity of supervisors / trainers and commitment/ investment:

'(I)n my view the issue of supervision and mentoring (which includes monitoring) is the least well developed in most contexts and often because it is seen as too costly. However, getting strong and effective supervision/mentoring in place EARLY on is a key to assisting new professionals to adjust and manage their work; It needs to move away from a check list and policing mode to reflective supervision to have an impact on quality in my experience. This can include creating peer groups within a setting or geographic area to support and coach.'

'Governments and organizations will do well to invest in a team of trainers to ensure that their skills depict what we want to see in the classroom……. In other words if we don't invest in the trainers of trainers, then we will get as little out as what we put in.'

Preparation of ECD cadres across both education and health contexts in low-resource contexts tends to consist of short-term, targeted training delivered over a period of days, designed to support delivery of specific initiatives. Based on a review of 29 integrated ECD programmes, Yousafzai and Aboud (2014) report that most training lasts for a period of 1-2 weeks. In support of this finding, Costello and Dalglish (2016) report that in 44 out of 58 countries covered in a review of IMNCI implementation, pre-service training for CHWs was found to be less than one month in duration. Because of the likelihood that knowledge and skills gained during the short duration of most ECD training may be easily lost, there is numerous calls for greater focus on supervision and on-going support (Abdillah & Karna, 2014; Boschi-Pinto, Bahl, & Martines, 2009; Faber, Schoeman, Smuts, Adams, & Ford-Ngomane, 2009; Hamadani et al., 2014; Huicho et al., 2005; Liu et al., 2011). These calls are founded on widespread concern that current supervision efforts are severely lacking in most contexts.

Teaching methods – all cadres; education professionals; non-certified para-professionals

Level of Consensus reached	Teaching <u>methods</u> - possible teaching methods for use in delivery of ECD training (<u>all ECD cadres</u>):
strong consensus	Planned refreshers and continuing professional development sessions
strong consensus	Reflection on practice
consensus	Participatory/ interactive sessions
consensus	Combination of instruction and active learning strategies, such as role-play
consensus	Supportive supervision and mentorship by skilled personnel

consensus	Interactive sessions (Q & A)
consensus	Peer to peer learning in groups
consensus	Analysing examples of effective practice

Round One responses indicated commonalities across all ECD cadre groups for this aspect of training. Distinct needs were also highlighted for *certified education professionals* and *non-certified para-professionals*, but not certified health professionals.

There is consensus that interactive training techniques should be employed *across all cadres groups*. Peer to peer learning and an emphasis on supervision and mentorship *as part of the training methodology* are, again, also emphasised. As one Expert commented:

'For all ECD professionals - my perspective is that a combination of gaining/strengthening knowledge and practices related to ECD theory with actual practice - and then coming together to reflect and discuss issues experienced that touch on theory and practice works the best. In other words a cycle of input of knowledge, ideas, theory within a group followed by the trying out and figuring out how to apply in practice WITH guided supervision and mentoring and then coming back together for further inputs as well as reflection and critical self review of what worked or not and adjustment of understanding and practices.'

Level of Consensus reached	Teaching methods - possible teaching methods for use in delivery of ECD training (certified education professionals):
consensus	Cadres develop and use practical resources during training
Consensus of disagreement	Focus on delivery of a specific curriculum / package, as well as strategies for contextualising curriculum content

For education professionals specifically, development and use of practical resources is important during training. This, again, fits with existing evidence that training for education professionals in low-resource contexts needs to incorporate guidance on preparation of resources in order to avoid situations where limited provision of resources results in programme failure.

Notably, there is evidence of some consensus that *focus on a specific package or curriculum may not be appropriate for training education professionals* (unlike in the case of non-certified para-professionals (below). This indicates consensus that focus on specific packages should form part of initial, 'tier one' training for non-certified para-professionals, followed up by subsequent training for more qualified cadres that focuses on *adaptation* and *application* of curricula to local contexts.

Level of Consensus reached	Teaching methods - possible teaching methods for use in delivery of ECD training (non-certified para- professionals):
consensus	Cadres have opportunity to observe experienced peers 'in action' in home or early childhood settings
consensus	Cadres develop and use practical resources during training, in preparation for implementation in the field
consensus	Focus on delivery of a specific programme package, to ensure in-depth knowledge of each aspect and accompanying materials

There is clear distinction here between the training needs of education professionals and para-professionals, with consensus that training for para-professionals should incorporate a focus on a specific package, to ensure that by the end of training, cadres are well-equipped to deliver their respective programmes / packages. According to one Expert, training could include:

'simulations of every component of the daily routine; analysis of the daily routine component and how it promotes holistic child development and specific competencies; and materials making and use for that daily routine component; followed by opportunity for the teachers to role play/simulate one component of the daily routine with feedback from colleagues…….. this is enough to get teachers started if they are provided learning materials'.

Teaching materials - all cadres; education professionals; non-certified para-professionals

Level of Consensus reached	Teaching <u>materials</u> -possible teaching materials for use in delivery of ECD training (<u>all cadres</u>):
consensus	Video resources (egg. examples of a range of practices across different contexts that can promote discussion of various pedagogical approaches and interaction styles)
consensus	A combination of relevant and appropriate materials, including locally developed and accredited resources

Again, Round One responses indicated commonalities across all ECD cadre groups, with specific needs only *certified education professionals* and *non-certified para-professionals*.

Consensus on the use of audio-visual materials reflects the emphasis on active, engaged learning, with opportunities for cadres to learn about a range of possible approaches to delivery of programmes and curricula. This also fits with the concern that training should *empower* cadres, by providing access to knowledge, whilst at the same time encouraging them to make informed choices about how best to deliver programmes in their own context. This is supported via use of a combination of materials (with emphasis on relevance and contextualisation), in order to model practice that they need to be adopting with children in their own settings.

In Round Three one Expert cautioned that introducing ECD cadres to a range of approaches was only useful if they offered examples of *'very good practice … to at least inspire reflection and discussions'*. Another emphasised the importance of discussion around what is appropriate and relevant *to the context* in which cadres are operating – not making assumptions about what might be seen to be 'effective' based on examples from other cultures or contexts (in particular, examples from high-resource or 'Western' contexts).

Level of Consensus reached	Teaching materials -possible teaching materials for use in delivery of ECD training (<u>certified education professionals</u>):
consensus	Teacher made resources as examples for cadres to make their own
previously low consensus - revised - consensus now achieved	Established ECE curriculum tailored to level of practitioners *and including information on strategies to adapt to diverse contexts*

In response to feedback from Experts, the second item listed above was revised between Rounds Two and Three as follows: 'Established ECE curriculum tailored to level of practitioners' was revised to: 'Established ECE curriculum tailored to level of practitioners and including information on strategies to adapt to diverse contexts'. This reflects consensus that, for education professionals, use of curricula to guide training should focus on encouraging *adaptation* to suit local contexts, rather than strict adherence.

Conversely, for para-professionals (please see below), there is consensus that training *should* focus on a specific programme or curriculum, in order to provide support in ensuring that cadres are equipped to deliver by the end of training, indicating acknowledgment of different learning and professional needs across the two groups.

Level of Consensus reached	Teaching materials -possible teaching materials for use in delivery of ECD training (non-certified para-professionals):
consensus	Programmes / manuals / ECE curriculum (training should closely follow guides and /or curriculum that cadres will be implementing, to ensure that they are equipped to deliver by completion of training)

3.2.5 E. Assessing impact of training

Level of Consensus reached	Applicable to all ECD cadres:
	Short-term impact
consensus	Documented changes in creating child-centred, age-appropriate learning environments
	Long-term impact
New item (to reflect open-ended comments) - strong consensus	*Assessment of impact of ECD training should avoid using high-stakes measures, such as one-off summative testing*
Consensus of disagreement	Documentation of ECD cadres retention rates-

Findings for this section indicate considerable complexity in finding ways to assess impact of discreet influences in ECD settings across diverse contexts. Out of 21 items developed for Round Two, only one reached consensus. The lack of consensus around assessing impact of training can be partially explained through the diverse range of possible approaches provided in response to open-ended, Round One questions. Suggestions ranged from the use of RCT's (Randomised Controlled Trials) to child-focused data gathering to documentation of child perspectives on changes in ECD settings.

There is consensus that, in the short-term, impact of ECD training could be measured through observable changes in ECD settings, specifically in terms of child-centredness.

In line with this view, there is strong consensus that assessments should not use measures that might place undue pressure on ECD cadres. A large number of open-ended responses were received in response to the 21 items listed in the Round Two survey. These included concerns about:

- Risks associated with the use of 'globalised' measures that would not reflect local contexts.
- Challenges around ensuring that measures of impact actually can be seen to reflect quality of training and not various other factors (such as retention, pay and conditions).

Experts also commented on logistics associated with 'ideal' measures. For example, phased target setting and follow up at set time intervals following ECD cadres training was seen to be a possible ongoing method for monitoring impact but Experts warned that this would require a lot of additional organisation and resources.

These concerns, again, reflect how complex authentic assessment of impact is. They also fit with the general consensus expressed across other sections that ECD cadres training needs to be focused on building from the ground up and empowerment. Arguably, these objectives are best assessed using programme-specific measures and tools. As one Expert commented:

'The items in this section are very light on an ECD professional engaging in self-assessment in concert with input from parents, children and relevant others. ……..Most assume that tools and an objective 'outsider' are the way to assess effectiveness..'

3.2.1 F. Scaling up

Level of Consensus reached	**Applicable to all ECD cadres**:
strong consensus	Financing plan / budget -
strong consensus	Availability of a range of trained personnel to support ECD training initiatives -
consensus	Stable workforce to support scale-up at all levels -
consensus	Attention to how to scale to remote areas
consensus	Alliance of formal and non-formal sectors to ensure reach/coverage of training to all ECD cadres -
consensus	Centralised plans for on-going supervision and mentoring -
consensus	Established, recognised professional standards and clear career pathways that offer progression from basic training through to post-graduate level -
consensus	Accredited training unit or institute at national/regional level to set policy and procedure -
consensus	Commitment to intervention and accountability across all levels of administration

The conditions for effective scale-up listed above closely reflect concerns expressed widely in the literature. Key challenges are widely reported in relation to:

- Lack of resources and financial commitment to ECD (Neuman, Josephson, & Chua, 2015; Rule, 2005; Sinha et al., 2015; Sun et al., 2015), resulting in critical shortages human resources with knowledge of early childhood (Mahmud, 2014; Rodríguez et al., 2015), despite years of advocacy and target-setting at the level of global ECD policy.
- Availability of personnel to deliver training (Yousafzai, Rasheed, Daelmans, et al., 2014).

Based on the items listed above and wider literature, scale-up of ECD cadres training requires, at a minimum:

- A workforce of skilled trainers, mentors and supervisors at *all levels* of implementation, from community to national level, supported by coherent systems of support that involve both formal and non-formal sectors.

As one Expert suggested:

At national level, *'Creation/utilization of mobile teams of competent trainers composed of government sector, tertiary institutions and CSO to support local training centres/institutions and ECD centres'*.

This was supported by other Experts who particularly identified the importance of mobile teams of ECD cadres trainers who could access marginalised / remote areas:

'Place greater emphasis on small cadres of very strong trainers who work with network of ECD programs. What grows out of this bottom up approach will ultimately fuel a national surge'.

Potential ECD leaders and trainers could attend high level training, in order to empower them with the knowledge and skills to conduct training for integrated ECD in their own contexts. The Early Childhood Development Virtual University (ECDVU), established by Alan Pence and colleagues has successfully offered a blended learning programme at Masters level and professional development courses for nominated graduates for ECD leaders from countries in Sub-Saharan Africa. In an evaluation of the first cohort, 89% of participants reported that they had achieved an 'above average' to 'significant improvement' in their skills for taking an integrated approach to ECD (Vargas-Barón 2005, p6.).

- Appropriate pathways for career progression and *realistic* targets for raising qualifications / capacity.

Careful policy setting is essential. Evidence suggests that, in some low resource contexts, setting inappropriate qualification levels and entry requirements for training may act as a barrier to recruitment of community-based practitioners. Comments from one Expert suggested that developing a training institute at national level might act as a barrier to some ECD cadres (for example, those working in hard-to-reach, remote geographical or linguistically diverse contexts) because of entry requirements. In Tanzania, a decentralised approach adopted to improve supervision resulted in significantly improved supervision in implementing districts, but eventually proved too ambitious nationally because of a lack of systemic supports, particularly with respect to the need to include clinical observations and feedback as part of all supervisory visits (Mohan et al., 2011).

- Systems-based approaches that are administered centrally and fed through to regional, district and local levels of implementation

Recent evidence from integrated ECD interventions suggests that integrated ECD has been scaled-up most successfully in settings where comprehensive community engagement strategies have been strong (Costello & Dalglish, 2016). As one Expert suggested:

' Strengthen supports for community led early childhood programs rather than imposing programs; Build leadership for children in communities because without that best interests of children will be undermined and resources will be lost……

4. Synthesis of key findings

Results from the Delphi study serve to confirm many of the issues and priorities raised in the literature. This is of value because, as outlined in the introductory sections of this report, to date evidence on strategies for training ECD cadres has been rather incidental, often documented within broader analyses of programme implementation or systems of provision. The Delphi findings, collected through focused examination of expert views on issues related specifically to training needs of different ECD cadres, confirm much of what is currently known.

In this section, attention is drawn to findings that *expand on, help to clarify, or add new insights to current knowledge*. Drawing on consensus around essential Dispositions; Skills; Knowledge for ECD cadre; appropriate training methods and materials, and necessary conditions for scaling-up ECD cadres training, we propose a model (presented in Figure 1, in the Abstract) for joined-up provision of training across ECD cadre groups. This system incorporates key components of Richter et. al's (2017, p.105) 'Framework to promote young children's development through a multi-sectoral approach' and draws on Expert consensus around **commonalities and distinctions across cadres groups** achieved via the Delphi process reported here.

Summary of key findings

Important to note at the outset is consensus, reflected both in the Delphi findings and from issues outlined in the literature-base, that this is a complex and multi-faceted area of study. ECD provision spans a range of formal and informal settings located across vastly diverse contexts, catering for families and children from different social, cultural, ethnic, religious and linguistic backgrounds. There is corresponding consensus across the literature and Delphi results that one-size-fits-all approaches to ECD cadres training are unlikely to result in effective, sustainable and productive outcomes. Rather than focusing singularly on specific methodologies, training should prepare cadres

with dispositions and skills that will enable responsive, creative actions (i) in the face of likely challenges around resource provision and other adversities and (ii) in engaging with children, caregivers and communities. Above all, training should support cadres in becoming interested in, and able to develop, strong, trusting relationships with children, caregivers and communities. This will increase likelihood that messages related to supporting positive early childhood development in homes and communities are relevant, meaningful and likely to be actioned. Such skills are necessary for ECD cadres to deliver the kind of 'nurturing care' that is currently advocated globally in the field of ECD (Britto et. al., 2017).

Emerging from the Delphi results, of particular interest is consensus that both **commonalities and distinctions** exist in training needs across cadres groups. There are *commonalities* in (i) the kinds of dispositions, skills and knowledges that are viewed as essential for delivery of ECD; (ii) training methods and (iii) necessary conditions for supporting and scaling-up training for different cadres groups. There are also *distinctions* in required skill-sets and types of knowledge required, depending upon the settings in which different cadres groups work, as well as training needs that are unique to specific groups.

This set of results provides novel insights into potential for integrating training across ECD cadre groups. The literature search conducted for the purpose of this study revealed an apparent gap in studies that have sought specifically to understand the role of different ECD cadres in integrated approaches to early childhood provision. As evidenced, to date literature has tended to report either on early childhood education practitioners / professionals OR community-based para-professionals working largely in vertical programmes or, to a lesser extent, health professionals involved in delivery of ECD. The Delphi results, which provide a clearer understanding of cadres roles and the extent to which they might be seen to form part of a distinct professional group, could provide the basis for development of ECD training systems, in which the different and shared needs of cadres working within ECD can be incorporated to create coherence and integration (Figure 1).

Such a framework could be used to strengthen professional development pathways for professional development, seen as crucial for building and sustaining capacity among ECD cadres (Tomlinson et al., 2014; Yousafzai, Rasheed, Daelmans, et al., 2014). As highlighted earlier, attrition of ECD cadres is widely raised as a key challenge to effective, sustainable implementation of ECD interventions (Bosch-Capblanch & Garner, 2008; Liu et al., 2011; Sinha et al., 2015).

Promoting skills that enable cadres to contextualise programmes

Also of note, in informing provision of ECD cadres training, is strong consensus around the importance of *contextualisation* of ECD provision, again emerging from both the literature and reflected in these Delphi findings. This is reflected across distinct sections of the surveys, and the three Delphi Rounds, in a focus on the importance of providing ECD cadres with abilities that enable them to discern and respond to localised needs and capacities. Numerous studies have argued, or provided evidence that programmes and policies that do not reflect local customs, needs and capacities can result in 'missed opportunities' (Jonker & Stellenberg, 2014; Nsamenang, 2009) and are less likely to be sustainable in the long-term (Pearson & Degotardi, 2009). Equally, programmes that do not take advantage of opportunities to build on existing informal community supports, or more formal structures, are less likely to be successful than those that do (Marfo et al., 2008; Ng'asike, 2014; Richter et al., 2017). As Richter and colleagues (2017, p. 114) point out:

'Services need to be adapted to local context, address existing beliefs and practices, and be delivered through channels that are acceptable and feasible. Findings from multiple studies have shown the

importance of engaging community members at an early stage to create understanding, build ownership, and make optimal use of local resources'.

Responding to this set of concerns, there is consensus in the Delphi findings that ECD cadres training should equip cadres with skills in flexibility, creativity and adaptability, to enable them to effectively work with and draw on localised needs and resources. While much of the literature discusses the need for *programmes* to reflect local contexts, these Delphi results highlight the important role of *personnel* in this process. Notably, this emphasis fits closely with the consensus around relationships-building to facilitate deep understanding of local contexts through close connections with caregivers and communities. The significance of this aspect of provision and training was noted particularly by one Expert, who expressed particular concern about the need to acknowledge that alternative forms of non-formal care exist in many communities. These should be built upon and not brushed aside in efforts to improve provision of ECD:

'There (seems to be) a strong sense throughout the questions and the study that we are talking about adult-led, centre-based care, while in the Majority/Developing World child-to-child is a very strong/important part of children's growing up and non-centre-based care is more common than centre-based (even in many developed countries non-centre care is a/the major form of care). There is very little sense throughout the study that ECE/ECD professionals should be aware of or be able to play a role in such environments. As with the vast majority of publications regarding child care Western-based approaches and understandings are seen as the 'norm', even when they are not normal'.

To an extent, the Delphi findings support this concern as there is strong emphasis throughout on contextualisation and responsiveness to localised needs. Consensus among Experts who participated in this Delphi study provides insights into training content and approaches that would equip ECD cadres in supporting the complex task of adaptation of programmes to local needs. For example, items in Section A (Dispositions) that reached consensus:

'Respectful of diverse groups', ' Shows empathy and understanding of children and families', 'Elicits trust and respect from community', 'Knowledgeable and sensitive to local context', and 'Sensitive to needs of target group'

in Section B (Essential Skills)

'Work with local community members and value their views' and 'Sensitively and effectively influence and challenge the perceptions or customs that are counter to child rights'

in Section D (Training – materials)

using *'A combination of relevant and appropriate materials, including locally developed and accredited resources.'*

All point to skills that could be developed through training that adopts appropriate pedagogical approaches and materials in promoting awareness of the importance of contextual understanding and awareness. Drawing on patterns on consensus across the Delphi findings, we would argue that *'relationship-based'* pedagogies provide a useful framework.

Relationship-based pedagogies for training

Reflected across different sections of the survey (in particular Dispositions; Essential Skills and Training methods) is consensus that positive, caring relationships between adults and between adults and children are crucial to effective delivery of ECD. There is strong consensus that an

essential component of ECD training should be a focus on building awareness of the importance of relationships, reflected in dispositions and skills that are seen as important, as well as interactive, collaborative approaches to delivery of ECD training.

Conceptual frameworks for relationships-based approaches to early childhood provision exist, albeit based on work conducted in the global North. Leading early childhood educators have argued that effective provision of holistic early childhood care (as reflected in the 'nurturing care' model for ECD proposed by Britto et. al. in the 2017 Lancet series) requires 'respectful reciprocity' (Brooker, 2010). Respectful reciprocity is reflected in, and supported by, an emphasis on 'patient listening' to facilitate understanding and affinity with others' views and feelings. Brooker argues that, as part of the listening and relationship-building process, early childhood professionals need to be able to accept and embrace (*care about*) individual and unique parent perspectives on child-rearing that might contrast with their own.

Experts who participated in this Delphi study emphasised that the same is important for ECD cadres from different backgrounds working in low-resource contexts, who need to be able to understand and respond to local realities and customs. There was strong consensus among our Expert Panel that Dispositions reflecting a 'caring', 'respectful', and 'empathic' nature are essential for all ECD cadres. A similar pattern is noted in the Essential Skills section, where there is strong consensus that 'interacting positively' with children and families; 'listening, observation and communication', and 'working with parents' are essential skills for all ECD cadres.

Relationship building supports these elements, as it is about enabling parents and communities to understand new ways of understanding or acting, or even to collaborate and create shared approaches. Building such relationships enables a process of two-way interaction, where cadres can learn from parents, but equally can begin to influence parent and community attitudes, where appropriate. Findings reported here indicate consensus that this view of relationships and interactions applies equally to ECD cadres (health, education and para-professional groups), and the people for whom they are providing service.

Mentoring and supervision

A further finding that deserves particular note and can usefully inform provision of ECD cadres training is the strong consensus around the importance of on-going *supportive* mentoring and supervision, viewed as essential both in its own right and in relation to training methods and scaling-up ECD cadres training:

Strong consensus was achieved for the following item in Section D (Training) on systems: *'Training on its own is far less effective than training that is supported by on-site, on-going mentoring and supervision'*. In Section D (Training) on methods: *'Planned refreshers and continuing development sessions'* also achieved strong consensus, in terms of forming an essential part of ECD training.

The role of mentoring and supportive supervision in supporting effective early childhood practices is widely referred to in the literature on provision of ECD (Abdillah & Karna, 2014; Gobezayehu et al., 2014; Kelly et al., 2012). This key aspect is shared across ECD cadre groups: an IMNCI review conducted by Costello and Dalglish (2016) found that 64 out of 87 countries surveyed, referred to mentoring and supervision as an important aspect in the design of effective training programmes for cadres involved in implementing IMNCI programmes. The Aga Khan Foundation's successful Madrasa ECD programmes, like others, have incorporated a focus on on-going mentoring in their approach (Evans & Bartlett, 2008).

Evidence from both the literature and our Expert Panel suggest, therefore, that effective provision of ECD training must incorporate a focus on mentoring, supervision and on-going continuing professional development / collaboration.

Importantly, mentoring and supervision should be designed and implemented to support autonomy among ECD cadres. As one of our Experts indicated:

'It is important for community health workers to be supported by programme management, to have autonomy to make decisions in response to family/child need'.

Such an approach fits with the parallel focus on the importance of establishing status and professional identity for ECD cadres (Chiparange & Saruchera, 2016; Gobezayehu et al., 2014; Neuman et al., 2015). It also reflects principles underpinning the ECDVU's (Early Childhood Development Virtual University) approach, spearheaded by Professor Alan Pence. ECDVU promotes a sense of identity among students / participants, by encouraging awareness of indigenous / local values, and the importance of critically exploring their potential for supporting ECD programmes (Schafer et al., 2004).

Relationship-based pedagogies promote connections and collaboration between practitioners, emphasising the importance of collegiality in enhancing practice and opportunities for professional growth and development, particularly in work with young children and families (Goouch & Powell, 2013; Papatheodorou & Moyles, 2009). The emphasis on on-going mentoring and supportive supervision reflected in strong consensus among our Expert Panel indicates that relationship-based approaches may usefully inform the delivery of ECD cadres training, with informal peer support and networks adding value to the ECD training process.

Role of ECD cadres in supporting community transformation

A final key point to make in relation to frameworks for ECD cadres training that reflect findings from the Delphi study and from the literature review (albeit indirectly) is that there appears to be a sense that all ECD cadres play an important role in communicating messages designed to result in *transformed homes and communities* for the benefit of young children.

This sense can be linked to the strong emphasis on connections to, relationships with and *responsiveness to* caregivers and communities emerging from the Delphi findings. It is also reflected in the strong consensus around training that supports development of *effective communication and interaction skills* to support negotiation and compromise, to enable cadres to build on positive aspects of existing practice, as well as addressing those that pose risks to positive development and well-being.

Recognition of this broad role of ECD cadres, which indicates that impact of programme delivery extends beyond simple outcomes associated with manualised approaches, is of particular importance in raising the status of cadres who as yet have little status. As outlined in the literature, significant challenges in implementation of integrated ECD are posed by the lack of institutional recognition and documentation of non-certified para-professionals in particular. Jonker and Stellenberg (2014) point out that this lack of recognition poses risks in terms of 'missed opportunities' to save lives, with many children and mothers not having access to formal services. The framework in Figure 1, which presents para-professionals as playing an integral role in the foundation of community-based ECD approaches, is intended to address this current gap.

Constraints / reflections on the process

Limitations to Delphi methodologies reported in the literature (Yousuf, 2007) apply to this study. By its nature, the Delphi process involves reduction of complex concepts, as noted by members of our Expert Panel. For example, two Experts in particular expressed concern about assumptions that issues around provision of training for ECD cadres across a very broad range of contexts can be reduced to a set of statements. We endeavoured to reduce this risk, as well as the possibility of Experts feeling uncomfortable about 'consensus' reached, by keeping channels of communication open throughout the process. In return, we received invaluable feedback from members of the Panel. Indeed, the level of feedback received in response to open-ended ended questions and optional comments boxes reflects the depth of commitment and engagement among our Expert Panel Members. While there are limitations in this data, therefore, we are fortunate to have benefited from a broad range and depth of knowledge.

A second constraint relates to the broad scope of issues covered. On the one hand, as reported, this has meant that the findings provide useful insight into commonalities across cadres groups. On the other, there is likely to be detail that has not been captured by this study (for example, where training should be located; specific insights into how monitoring and supervision can be successfully delivered). In relation to consensus around duration of training, we posed 6 'options' regarding duration of training, outlining proposed minimum duration. However, only one item *'Key to provision of training is availability of opportunities for continuing professional development and on-going training'* reached consensus. These responses were not unexpected and reflect the vast diversity in training approaches and contexts reflected in the literature review. However, these issues signpost important areas for future work in this area.

Relatedly, a third constraint relates to continued gaps at a broader level. There are aspects of ECD cadres training that were not addressed, specifically relating to issues around child protection; training for cadres working with unique groups of children (e.g. marginalised ethnic and linguistic groups; children with disabilities and children in situations of conflict / natural disasters). The set of findings presented provides underpinning principles for training that are equally applicable to all ECD cadres working across a variety of contexts, however further work is needed to examine specific additional needs for cadres working in these settings.

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Appendix A – Key sources of literature

Literature review matrix

Terms of the Desk Review

A literature review of studies or programmes conducted where service providers were trained to provide ECD that incorporates elements of stimulation within health, nutrition or education programmes in low-resource settings and how outcomes were monitored. The review will broadly summarise the current evidence around:

a. Key advantages and challenges faced in training different cadres (with different levels of education and skills) for delivering ECD and offer potential solutions to challenges highlighted.
b. Specific issues to consider when training ECD providers in different settings (e.g. in emergencies)
c. Specific issues to consider when training ECD providers working with care givers of children from different age ranges (preconception-2years, ages 3-5 and ages 6-8)
d. Specific issues to consider when integrating ECD training within certain vertical programmes focussed on nutrition, health and education.
e. Essential theoretical components to be included in the ECD curriculum for any cadre (e.g. on child development)
f. Essential practical skills training to be included in the ECD curriculum for any cadre (such as communication skills required by ECD providers to engage with care givers)
g. Methods for delivering training (including duration, intensity and tools needed)- particularly in sustaining retention of knowledge and skill of service providers
h. Methods of assessing impact of training on service provider's knowledge and skill

Packages: Identify and describe elements of training packages (commercial and freely available) on early childhood development within low-resource settings (e.g. Saving Brains and Care for Child Development)

Key
x = present
/=limited information
blank= not addressed

Reference	Country	Sample	Methods	a	b	c	d	e	f	g	h	Training package/ other notes
Abdillah 2014 Rowing the weaves of community participation.	Lombok, Indonesia (LMIC)	16 settings	Qualitative, interviews, documentary analysis	x					/	x		A small amount of information on training and ECD programme

Aboud 2010 Curriculum review of early childhood in Indonesia.	Indonesia (LMIC)	Not known	Observations and review of materials					x	x	x		Refs/appendix relate to pitfalls of curric/ training
Armecin et al. 2006 Early childhood development through integrated programmes. Evidence from the Philippines.	Philippines (LMIC)	Not known	Health assessments of children									No specific info on training
Cardenas 2015 Early childhood benefits at low cost.	Mexico (UMIC)	241 communities	Child development scores, observation of parents (RCT)									No detail
Chiparange 2016 Pre-school education. Unpacking dilemmas and challenges experienced by caregivers.	Mutare-Zimbabwe (LIC)	10 Private pre-schools 3-5 age group	Case study, grounded theory	x								No
Early Childhood Development Teachers' Resource Guide 2000 Sri Lanka.	Sri Lanka (LMIC)	N/A	N/A									Development and activity manual. Clear idea of possible activities for ECE but not training.
D'Aprano et al. 2015 Culturally appropriate training for remote Australian Aboriginal Health Workers.	Remote Northern Territory Australia (HIC)	10 Aboriginal Health Workers And 9 others	Case study, observation, interviews, documentary analysis etc.	x				x	x	x	x	Yes, developed for one intervention
EFA Global monitoring report 2007 Strong Foundations.	Global	N/A	N/A							x	x	Key components of ECD programmes
Ejuu 2012 Implementing the early childhood development teacher	Uganda (LIC)	106 tutors and principals from teacher training	Questionnaires and Interviews	x		x		x		x	x	Key headlines of training at diff levels

training framework in Uganda.												
Fernandez Rao et al. 2014 Integrating nutrition and early child-development interventions among infants and pre-schoolers in rural India.	India (LMIC)	Not known	RCT infant/ preschool nutrition and cognitive development assessed	x		x			x	x	x	Same as Pakistan study
Haraseb 2011 Early Childhood Education for the San in Namibia.	Namibia (UMIC)	Descriptive- not research	N/A professional knowledge	x				x	x	x		Limited information on training
ILO 2012 Right beginnings, early childhood education and educators.	Global	Overview	Report of statistics and issues	x						x		Possible detail to follow up from sources
ILO 2015 Conditions for early years workers.	Global	Overview	Report of statistics and issues with some LMIC cases									No
ILO Rwanda 2013-18 policy for development.	Rwanda (LIC)	Policy/strategy	Highlights 'school readiness' programme and ECD training									Follow up about school readiness and ECD training
ITK 2007 Inuit childhood education and care.	Northern Canada (HIC), low resource area	Summaries of practice from a conference	Survey of policy and practice.	x				x	x	x		Some detail of programme and training
Kelly et al. 2012 Early intervention for families with children with or at risk of an intellectual disability in Northern Malawi.	Malawi (LIC)	3 portage workers, 4 CHV. 10 parents of children 0-6.	Questionnaires/ interview	x	x		x	x	x	x	x	Some detail of programme not training

Kenya ECD service guidelines 2007.	Kenya (LMIC)	Policy	Standards for EC provision					/	/	x	x	Standards checklists and required qualification outlined.
Mahmud 2015/ UNESCO Teacher training in support of ECE in Pakistan.	Pakistan (LMIC)	Teacher resource centre	Case study	x		x		x	x	x	x	Highscope approach and components of training included
Mangwaya 2016 The readiness of schools in Zimbabwe for the implementations of early childhood education.	Zimbabwe (LIC)	5 primary schools, heads, teachers in charge and class teachers	Multiple case study, documentary evidence and interviews	x		x				x		Not a great deal of detail but explanation of problems with implementing EC curriculum
Munthali et al. 2014 ECD community based childcare centres Malawi.	Malawi (LIC)	All CBCCs in 28 districts of Malawi	Questionnaires									About running of community based childcare centres but no detail of training
Ng'asike 2014 African ECD curriculum and pedagogy.	Kenya (LMIC)	Turkana people	Ethnography	x								No specific details of training but asserts cultural relevance
Pence 2008 Early childhood development in Africa.	Subsaharan Africa (LIC and LMIC)	ECDVU participants number not specified	Descriptive of the Early Childhood Development Virtual University	x				x		x	x	Follow up ECDVU as a capacity building package for EC leaders (see Vargos- Baron 2005) and http://www.ecdvu.org/welcome.php
Phuka et al. 2014 Community health workers in Malawi.	Malawi (LIC)	N/A	Sub-evaluation of WHO Care for Child Development	x			x					No detail of training but barriers found in implementing the 'Care

			Programme									for development programme'
Sun, Rao and Pearson 2015 Policies and strategies to enhance the qualities of EC educators.	Global	Survey of previous research	EFA background paper	x				x	x	x		Some detail of Madrasa pre-schools training.
Rao et al. 2012 Is something better than nothing? An evaluation of early child hood programmes in Cambodia.	Cambodia (LMIC)	880, 5 year olds from six rural provinces	Cambodia developmental assessment test	x							x	No detail of training but evidence that limited training can improve outcomes
Santibanez 2010 The promise of ECD in Latin America (world bank).	Latin America UMIC/LMIC	Large scale review of policy and practice	N/A	x				x		x	x	Appendix summarises ECD programmes, effectiveness and some information on training.
Scherzer et al. 2012 Global perspective on early diagnosis and intervention for children with developmental delays and disabilities.	Global, LMIC	N/A	Survey of issues from previous research	x			x	x	x			Suggests developmental screening tools as something to be included in training
Sri Raman et al. 2011 Building communities for change: an experience in Mumbai.	Mumbai (LMIC)	N/A	No research methodology- description of practice	x		x	x	x	x	x	x	Significant scaling up through cascade model
Taylor and Kvalsvig 2008 Scaling up support for children in HIV infected families by involving ECD workers.	South Africa (UMIC)	Community members and service providers in 6 areas of KwaZulu Natal	In depth interviews and focus groups		x		x					Specific focus for orphans and families living with HIV and AIDS

Tinajero et al. 2015 Making social and emotional outcomes of parenting programmes more visible.	11 LIC	Caregivers/ participants in programme	Focus group								x	Learning Through Play parenting programme. No detail
Tinajero 2010 Scaling up ECD in Cuba.	Cuba but scaled up to other Latin American countries (UMIC/LMI)	Case study of scaling up ECD programme	Using existing data on ECD outcomes, project evaluation, increase in workers and participants	x			x	x	x		/	Developmental checklist in appendices, overview of 3 programmes. limited training detail.
UNESCO 2015 ECCE personnel in low and middle income countries.	Global	N/A	N/A									Follow up- see synopses
UNESCO 2010 Case studies of ECCE in sub-Saharan Africa.	Sub Saharan Africa (LMIC/ LIC)	N/A	Case studies compiled by country	x			x	x	x			Important consensus on barriers and key elements to include in training. Possible good practice from South Africa relevant
UNESCO 2016 ECCE guidance for South East Asia.	SE Asia (LMIC)	N/A	Minimum agreed standards and expectations for ECE teachers/ training							x	x	Broad overview
UNICEF 2013 Promoting care for child development in community health services.	Pakistan (LMIC)	3,550 Aged 0-2	Outcomes measured at 6, 12,18,24 Cognition/communication/growth/ feeding/nutrition	x		x	x	/	x	x	x	Some detail of care and development programme training.
Vargos-Barón 2005 Impact Evaluation	Sub-saharan	23 graduates of programme	Questionnaires and document scrutiny	x				x		x	x	Master level training programme- course

Early Childhood Development Virtual University in Sub-Saharan Africa.	Africa (LMIC and LIC)											content available

Literature review synopses

Appendix Example of literature review synopses conducted for this study		
Terms of Desk Review A literature review of studies or programmes conducted where service providers were trained to provide ECD that incorporates elements of stimulation within health, nutrition or education programmes in low-resource settings and how outcomes were monitored. The review will broadly summarise the current evidence around: i. Key advantages and challenges faced in training different cadres (with different levels of education and skills) for delivering ECD and offer potential solutions to challenges highlighted. j. Specific issues to consider when training ECD providers in different settings (e.g. in emergencies) k. Specific issues to consider when training ECD providers working with care givers of children from different age ranges (preconception-2years, ages 3-5 and ages 6-8) l. Specific issues to consider when integrating ECD training within certain vertical programmes focussed on nutrition, health and education. m. Essential theoretical components to be included in the ECD curriculum for any cadre (e.g. on child development) n. Essential practical skills training to be included in the ECD curriculum for any cadre (such as communication skills required by ECD providers to engage with care givers) o. Methods for delivering training (including duration, intensity and tools needed)- particularly in sustaining retention of knowledge and skill of service providers p. Methods of assessing impact of training on service provider's knowledge and skill Identify and describe elements of training packages (commercial and freely available) on early childhood development within low-resource settings (e.g. Saving Brains and Care for Child Development)		
Reference	Key findings synopsis bullet points coded a-h	Follow up sources/ projects
Abdillah 2014 Rowing the weaves of	ECD program Lombok , 16 ECD centres. 'toddlers' a. identify local facilitators (training the trainers) from education, health and child protection. Abdillah advocates grassroots leadership, participatory selection, refining training, mentoring and small incentive to	Try to find out more via UNICEF.

community participation.	be involved. Problems with access to training in rural community so formed 'sub-village cluster system' where 4 or 5 teachers are assigned a local facilitator. e. Programme includes: health, nutrition, psychosocial, play, educating parents about child development, school readiness. Training focused on pedagogy, stakeholder mapping and 'local wisdom based learning' (p5) for the facilitators (I think). Then in clusters facilitators work with ECD cadres (teacher managers) worked on things like indoor and outdoor activities and management level support. No effective measure of outcomes reported.	
Aboud 2010 Curriculum review of early childhood in Indonesia.	a. Theme based curriculum not viable with limited resources/ limited understanding from ECW. g. Initial training of ECWs should be longer, 5 days followed by regular refreshers. e.f. Cadres should not be planning or creating materials- these should be provided and they can try to generalise them to fit the local area. Higher level training for top tier personnel to make programme locally relevant. Cadres receive child development training and how to deliver activities- must have knowledge of parenting and local area. Programmes should be based on competencies, c. 50% free play for under 4s, 4-5 should be one third free play, one third structure activities, one third instruction.	Follow up references look at appendix
Armecin et al. 2006 Early childhood development through integrated programmes. Evidence from the Philippines.	Integrated multisector program aim within overarching ECCD act. New CDW (child development worker) role, focus on health, social and ed and linking centre and home interventions and referrals. High risk areas identified and cooperation of local officials gained. Menu of ECD services determined at local level. Impact on children measured but no detail of training or impact on CDW workers	Look at references to try to find out more about training and impact on workers.
Cardenas 2015 Early childhood benefits at low cost.	Parenting programme impacts on child development and parent interaction.	Find out more from Worldbank
Chiparange 2016 Pre-school education. Unpacking	a. Rapid expansion of ECD centres has led to many 'teachers' lacking qualifications and experience. Combining this with lack of necessary tools and resources makes it difficult to implement the ECD curriculum especially for the private sector and with expectations to support health, welfare, care and education objectives. ECD workers showed lack of knowledge of recommended health and safety policy, lack of	

dilemmas and challenges experienced by caregivers.	awareness of the importance of play, inadequate access to guidance documents and the curriculum. (not really specific or offering solutions but could be areas to consider as barriers when developing ECD training)	
Early Childhood Development Teachers' Resource Guide 2000 Sri Lanka.	Manual of developmental expectations/ some outline of the importance of play and the teachers role and activities for physical and intellectual development. Interesting example of training manual- 205 pages, activities which can be done with v limited resources.	
D'Aprano et al. 2015 Culturally appropriate training for remote Australian Aboriginal Health Workers.	AHW's had basic health training to set standards but not ECD training. a. (and g) met the needs of AHW from diff disciplines and with ESL: interactive, small group, AV, break out sessions, role play, modelling and broken into chunks (p6). Started with a 'needs analysis' before designing training and built on principles of using adult's existing funds of knowledge. e.f. Contained principles of growth and development, risk factors, developmental milestones and monitoring, using the adapted screening tool. g. Face to face workshop and workplace coaching- structured plan and manual. 2 days teaching, half day coaching on administering the tool in the community. 'Booster' 3 months later h. Evaluated using 'Guskey' prof dev model (detail p3) 'participant reaction, participant learning' training feedback survey and interviews. Also observed during training.	
EFA Global monitoring report 2007 Strong Foundations.	Chapter 7 wide ranging overview of effective components of ECD programs- doesn't consider training but could be used to recommend key feature of training content: parental support, parent education, welfare (social), nutrition, educational experience which ease the transition to school; culturally relevant; language rich interactions and environment; multilingual practice; address gender inequality and promote inclusion. (See p174 summary) ECD workers must be prepared for home visits/ groups/ work in ECD centres (different organisation and communication skills).	
Ejuu 2012 Implementing the early childhood development teacher training framework in Uganda.	a. Attempts to streamline ECD training since 2008 with an ECD teacher training framework disseminated to all ECD training providers who are nearly all privately operated and very different in approaches. c. and g. The framework sets qualifications at entry, tutor qualifications and ECD programmes to use. 5 levels of training in this framework with set entry requirements, time periods and content BUT not being put into practice consistently. a. Most tutors not grounded in ECD- 100% of respondents cited this as a problem, 94.3% struggled to provide adequate reference books,88.6% lacked equipment/ teaching aids. Only 11.7 % had ECD specific training.	

	Many recommended administrative/ managerial structures also missing. Problems with inappropriate pedagogy based on lack of ECD knowledge. The framework includes ICT which is not available or appropriate for locations without electricity, problems gaining placements in some locations, h. assessment ranges from exams, to 'being good'. Very inconsistent. However, more consistency in duration and qualifications on entry to courses as well as ECD tutors wanting to improve their own skills and beginning programmes to do so. Recommends ECD training becomes part of national schools monitoring system, speedier registering and licensing, more on the spot inspections, create one assessment body, urgently need postgrad training programmes to 'uplift' ECD teachers and tutors, more local research into ECD in Uganda.	
Fernandez Rao et al. 2014 Integrating nutrition and early child-development interventions among infants and pre-schoolers in rural India.	Adopted WHOs 'care for child development' module and the Pakistan early development study. a. Intervention materials and activities have to be carefully translated and adapted to work in context. Workers nervous about modelling interaction in front of well-educated/ high class parents. Emphasised that the goal was to get them to try and see their own child's reaction. Workers wanted to 'tell the mothers what to do'. Supervision, refresher training and praise needed to help them converse and listen to parents. g. Created laminated flipchart of interactions/ games for parents with notes for ECD workers, pack of locally available resources. Supervisors trained for 1 month, including role play. Have a manual and training materials. Workers (village parents with basic level of education nominated by local stakeholders) have 2 day intensive training: purpose, roles, confidentiality, engaging parents, skills using the materials and working with parents are modelled, role play interactions and demonstrated the activities. Ongoing training 1 day every 3 months, and weekly review meetings. h. Supervisors check the workers have followed the activities in sequence by reviewing the home visit evaluation forms completed by the workers after each visit. The supervisor uses a checklist to assess the worker/parent interactions after observing monthly home visit. Participants complete an evaluation form at interview.	Links to WHO's care for child development module and The Pakistan early development study.
Haraseb 2011 Early Childhood Education for the San in Namibia.	ECD centres (0-4) and pre-schools for this marginalised group- remote areas and harsh environment, issues with accessibility, seasonal movement, language and cultural barriers. Intervention =Teachers are trained local people with the same language, in home location, involve elders and parents, e/f use cultural activities to improve ch'ns cognition, introduce the language that will be used in school, activities for development-physical/ social/ emotional. a/g. Bring expert qualified trainers into the community to work with ECD teachers. Link the ECD 0-4 centres with a primary school to share resources.	

	Encourage mother tongue instruction.	
ILO 2012 Right beginnings, early childhood education and educators.	Headline info: in 2009 L/MIncome countries 90-100% of ECE trained but one quarter of these reported that less than half of their ECE staff met national standards (p39). Factors= diversity of provision, underfunding, lack of national policies for teaching quals, pressure of enrolment relaxed standards. Lack of synergy between desired pedagogy/ curriculum and ECE training. ECE fwks need to be flexible. e. Integration between care and education is essential but important components of EC fwks vary from country to country. a. P38- ECE qualification standards weak, prof dev unsystematic, short (1 year max) training and mismatch between training and deployment. Professional guidance and supervision by professionals is problematic but may be one solution. Challenges in recruitment in rural areas and g. P39- overview of training fwks in diff countries duration and quals. p41 limited information on professional development	Follow up sources: Awopegba 2010, ILO 2011b, Penn, 2008. Mwaura and Mohammed 2008 paraprofessional training MoE republic of Maldives 2011 UNESCO /UIS 2010 UNESCO 2011e
ILO 2015 Conditions for early years workers.	Tajikistan new national EC curriculum 7 days training for teachers P9 length of ECE training/ level of quals in diff countries P11 amount of prof dev time Case studies for The Philippines, Vietnam, Ghana (All LMIC)	Not specific programmes, some case studies for LMIC.
ILO Rwanda 2013-18 policy for development.	Emphasises 'school readiness programmes' from 4-6 as a key way to improve ECE and additional training for EC workers. (Also mentioned in Innovations in Africa summative doc)	Find out more about school readiness programmes in Africa and ECD training in Rwanda.
ITK 2007 Inuit early childhood education and care.	a. Similar barriers to LIC as lack of training staff and limited access/ resources. However, additional barrier to providing first language and culturally appropriate ECE in communities was the requirement to find staff trained to a designated level. Therefore ECE regulation and fwks could potentially act as a barrier to providing local ECE. Using staff from local community allows the indigenous people to incorporate cultural traditions into the EC centre and involve elders more effectively. e/f. Training of ECE staff key components: Areas of learning (curriculum), 'effective communication with parents, play based learning, value of routine and organized learning activities, the importance of interaction with children' p16. g. Set levels of training qualifications for ECE are mandated in different regions, for some a programme of	

	CPD provided in Nunatsiavut this is a required 30 hours for every 3years following qualifications but this is unusual.	
Kelly et al. 2012 Early intervention for families with children with or at risk of an intellectual disability in Northern Malawi.	Portage workers trained local, non-professional community home visitors to support parents in the context of isolation and stigma of parents with disabled children. Limited previous studies but they agree local community workers are important. a. access overcome by providing bikes and allocating CHVs to local families, paid in commodities. Challenges with knowing how to model play/ informal interaction and so were given more support in the home visits. b./d.More training in specific therapies and addressing family probs with feeding etc. identified as a need after the intervention. Sometimes parents lost enthusiasm for carrying out the activities so needed encouragement of CHV. However, the CHVs were able to encourage other family members and neighbours to help work with the children, and could potentially reduce stigma. e. Theories of child development normal vs delayed, developing alternative learning strategies, hygiene, f. Range of studies identifying empathy and communication skills as important on p196, In this research, skills with physio and sensory exercises (helping parents), supporting needs of whole community, empathy and listening skills g. Local village leader recruited CHV, literate in English, O level std education, want to help/ cooperate. 17 days training, 1 week then 1 day per week, and 8 days inservice training once a month. Practical training in homes with portage workers h. joint visits and video obs	Follow up 'learning to play' program in Pakistan (Rahman, Iqbal, Roberts and Hussain 2008). Portage for children with ID in Vietnam (Shin 2009) Ellis 2010 review of research
Kenya ECD service guideline 2007.	Very clear guidelines for EY settings, curriculum and personnel-level and length of qualifications and ECD staff dispositions specified. Monitoring checklist for ECD centre environment and procedure- health and safety. Could use these guidelines to interpret key features of training needed e.g. play, managing accidents	
Mahmud 2014/ UNESCO Teacher training in support of ECE in Pakistan.	Case study of independent non- governmental resource centre began in 1986. Has been working on scaling up inservice training for ECE in response to ECE fwk introduced in 1990s. Believe in combining personal and professional support for teachers. Workshops in impoverished schools-empowering teachers and helping them to see the value of new methods. Developed teacher training strategy, ECE fwk and materials. e/f. Brain stimulation/ how children learn/ constructivism, teacher/child interaction and understanding behaviour. g.Trained teachers using High scope curriculum and assessment using observation. Resource pack provided (first learning bag) and how to make/ select local resources p14. h. In visits to schools gave feedback, set targets, made suggestions on improving environment, staff encouraged to keep reflective journals.	Follow up Mahmud refs at the end of this publication. http://www.bbc.co.uk/news/magazine-32839660 http://trconline.org/

	Led to ECE national curriculum and mandatory training in this phase. NB argues for community support not just high level- provides outreach sessions to explain this new approach to parents and stakeholders.	
Mangwaya 2016 The readiness of schools in Zimbabwe for the implementations of early childhood education.	Case study of 5 schools, Zimbabwe policy to have a grade zero class in every school. Teachers had on average 2.5 days workshop preparation for this. Qualified ECE teachers were described positively whilst unqualified ECE teachers were not (not sure what is meant by qualified/ unqualified here). Unqualified ECE teachers were not able to discuss their preparation as they did not understand teaching and learning! Head teachers had 3 days workshop but were also unsure of what that needed to do to put Grade zero into practice. All Heads teachers and teachers in charge felt unprepared for this mandated new curriculum innovation.	
Munthali et al. 2014 ECD community based childcare centres Malawi.	No real detail on training. But does argue for a community based approach using parents and local committees in a low resource context.	
Ng'asike 2014 African ECD curriculum and pedagogy	No detail on training but criticises imposition of Kenyan westernised ECD school readiness on tribal people. Points out learning opportunities in community life which would be more meaningful.	
Pence 2008 Early childhood development in Africa.	a. Pence highlights concerns about the research base and perspective underlying changes to ECD practice and training as based on American psychological models. Cites the Early Childhood Development virtual university as a way of educating ECD leaders to consider culturally responsive ways to move forward in the development of ECD in their own countries (particularly sub-saharan Africa). e. child development but also post-structuralist, constructivist culturally situated views of development. Based on first nations programme in Canada with an emphasis on harnessing the knowledge and skills of the indigenous population. g. Graduate level, web based programme 6 month terms with 2 weeks face to face seminar at the mid point g. 3 year masters, 1 year CPD, nominated by intersectoral committees. Leaders or potential leaders trainers in ECD policy and practice development. 3-4 individuals per country h. Monitored impact through reflective discussion. (Whole programme internally evaluated and externally evaluated by the world bank)- see An example of the **potential** impact of these changes in ECD leaders	Find out about ECDVU

	thinking was developing Eritrean Refugee camps to follow the same model as the village community- where the elders had the same responsibilities in the camp and children and extended family/ community were kept together and able to support ongoing ECD. An example of where this approach was missing was in introducing programmes in school on children's rights before involving parents and community elders.	
Phuka et al. 2014 Community health workers in Malawi	2 main types of childcare workers, Child protection workers and Health service assistants. Different roles and conditions. a.Despite both Government policy and parents' opinion valuing integrated provision, Lack of collaboration by different Govt departments in charge of these different agendas at community level 'negatively affected integration of nutrition and ECD activities' p190 Need strategies and guidelines for integrated implementation.	
Policy Framework for Pre-Primary Education in the Context of Early Childhood Development in Bangladesh.	Sets out activities and expectations for development of ECE and what they children will be able to do at different points. Indicates the level of training needs to train ECE as a BEd with major in pre-primary then 4 weeks PP training. Basic training of Paraprofessional EC workers 12 days and monthly refreshers. Activities are play based and there is a manual about child development, teacher techniques, activities and prepping materials. Includes a monthly parent meeting. List of materials needed expected 1 year PP outcomes, outline of curriculum/ activities in appendix.	
Sun, Rao and Pearson 2015 Policies and strategies to enhance the qualities of EC educators.	a.issues and barriers outlined on p.10 Skills based training necessary but not enough (Kaplan and Lewis 2013) Cites TRC (Mahmud Pakistan) play/ parents/ learning environment/ cascade to other teachers Best training emphasises importance of interaction (UNESCO et al. 2012) Cambodia mothers training (Rao 2012) P26 Madrasa pre-schools. (Mwauza and Mohamed 2008) Key components of training: local culture and values, ECE theory, working with parents and other agencies, opportunities to practise skills, centre and field based, mentoring, using local low cost materials, CPD Evans and Bartlett 2008 Rashid and Bartlett 2009 Malmberg Mwaura and Sylva 2011 –positive outcomes for children	follow up: Gambia (Choi 2006), (Mwauza and Mohamed 2008) Evans and Bartlett 2008 Rashid and Bartlett 2009 Malmberg Mwaura and Sylva 2011 UNESCO et al. 2012 Use this reference list but also talk to Emma as she has probably read it all anyway!
Rao et al. 2012 Is something better than	Comparison of outcomes for 5 year olds in Cambodia following home based programme, local pre-school (worker with 10 days training, 3-6 days annual refresher, carrying out pre-school under her house, with lots of younger children too), and government run ECCE in school.	

nothing. An evaluation of early child hood programmes in Cambodia.	a. Show big difference between no ECCE, and the local programmes. We can conclude that minimal training still makes the ECCE worthwhile whilst more training and resources in the school make it better. Cites other studies which show the same. In this study, home based programmes (2 day training course) were as effective as local pre-school. These needed less training but integrated child development, nutrition and parenting and may have enabled parents to continue the impact in their home. Evidence for grassroots programmes….when resources scarce	
Rule 2005 Ten years of early childhood development: a case study of Little Elephant Training Centre for Early Education.	Outlines development of a pre-school to become an outreach training centre for ECD at different certificated levels- over a decade! Highlights problems with focus on school-based care for 5 years olds in Africa as cheaper for families but less effective, as teachers not ECD trained. Now need to work with 0-4 year old especially with HIV issues but funding for NGOs harder to come by.	100s of workers in impoverished rural communities trained- now meeting national fwks for ECD and qualification expectations. rulep@ukzn.ac.za
Santibanez 2010 The promise of ECD in Latin America (world bank).	Appendices p138-148 in particular give a summary table of ECD programmes used in Latin America, the following narrative outlines the growth (or not) of these programmes and some brief training/ content information. In general much in common with other approaches seen so far: e.f.g. Madre Guias p141 integrated programme for 0-6 in the community, parenting, development, nutrition. Training for local women with basic education pre and during the intervention which involved home and group work (very similar to WHO care for development programme). More formal ECE centres and pre-schools with longer training also summarised. a. Main barriers- policy/ funding for continuation of projects. H. Advocate setting up a long term impact study for any new programme and suggest that even studies which are evaluated as effective are not always sustainable. One way to consider whether able to scale up is on cost-effectiveness.	Useful overview of programmes in Latin America, some triangulation of local programme effectiveness seen elsewhere. Could search for specific programmes.
Scherzer et al. 2012 Global perspective on early diagnosis and intervention	P1080 Most LMIC ECD teacher training focuses on growth and acute childhood illnesses and doesn't cover neurodevelopmental delays. Training for physicians may also be more limited. There are some screening tools developed for example in Malawi, Bangladesh and Aboriginal Australia but this article asserts that regular surveillance of development during clinical contact is most effective for identification. Advocates longitudinal record of developmental milestones such as a health worker checklist. As identification can support parents early.	Not specific details of training. Rather lack of training in identifying developmental issues and referring on. Mentions Malawi

for children with developmental delays and disabilities.	Argues there is insufficient focus from global organisations on survivors of childhood illness at risk of developmental delay. a. Barriers = limited training in early identification of developmental issues especially for children at risk. And limited funding/ guidance/ large scale prioritisation. Therefore, Need planning, simple resources and training to support early ID NB should be including this in scaling up…	development assessment tool, Aboriginal and Bangladeshi assessments- could follow up refs
Sri Raman et al. 2011 Building communities for change: an experience in Mumbai	Scaling up. Sesame workshop trust ECCE birth to six. 5000+ centres a.Integrated child development services oversee anganwadi workers in Mumbai. Deliver programmes for e/f. Health/ nutrition/ECE. Immunisation, health checks, referrals, non-formal education, supplementary nutrition. a. However, training and working conditions poor. e.f So SWT aimed to improve ECE with pre-literacy, pre-numeracy, health and hygiene training for existing workers.p5. P6. Piloted and then refined to scale up. Sesame Street TV on a trolley (chosen focus programmes) and then follow up workshop- engages local community and offers ongoing support to parents, including phone 'tips'. Then training for AWW workers (separate to SWT TV programme I think) 1. Trained 15 women as 'training specialist' 4 day training. 2. In groups of 4 trained 25 supervisors (as master trainers) 3. Master trainers train 2 or 3 groups of 25 AWW each (1 day training) Focuses on improving interaction with children and caregivers. c. A play based curriculum and materials is provided for 3-4 and 4-6 year olds g. To upskill workers: Kits on health and hygiene and pre-literacy given out (materials for children and workers)150 supervisors trained as master trainers (trained 4,300 AWW every year). h.Spot checks at intervals, third party evaluation, phone support. g.Training includes using different materials/ resources for play	Is in Emma's review of innovative programmes- return to this for scaling up info? Follow up authors/ Sesame workshop trust
Taylor and Kvalsvig 2008 Scaling up support for children in HIV infected families	a. Barrier is lack of understanding about Aids and HIV and belief that it is witch craft/ TB. Discrimination against children whose parents have died of AIDs. CHWs provided support for caregivers and children but there were not enough of them available. An increasing number of young orphans could be helped by ECD sites but couldn't afford the fees. NB ECD workers should work with CHW for referral and support/ access to grants and suitable care. Therefore ECD training should include this information and the skills for intersectoral communication. In	

by involving ECD workers.	addition ECD workers need knowledge of AIDs/ HIV transmission, prevention, treatment and care and detail of programmes which can assist. They also need training in supporting children with emotional and behavioural problems arising from bereavement.	
Tinajero et al. 2015 Making social and emotional outcomes of parenting programmes more visible.	Argues that we need more qualitative data to see the impact of parenting programmes in LIC. Based on focus group data looks at parents' understanding of developmental needs of children aged 0-6. NB: should evaluate training and outcomes of ECD programmes taking into account qualitative data to find impact on participants.	atinajero@hincks-dellcrest.org Toronto Canada. Follow up Learning Through Play programme- on Hincks-dellcrest website.
Tinajero 2010 Scaling up ECD in Cuba.	Educate your child programme. Multi sector, community based. 0-6 and mums/carers. Has been rolled out to Chile, Brazil, Mexico, Guatemala, Ecuador, Venezuela and Colombia. History and development of ECE and health explained. Massive network of polyclinics for health set up from the 70s. family at the centre. Programs and services in place for preventing pregnancy and birth problems. 3 main ECE programs summary p11. e/f. Educate your child program for 0-2 and 2-6, home visits, age specific group sessions in the community. Each session includes: orientation to area of development, resources and progress so far (what to do); stimulation activities with parents and child (try it out); parents evaluate/ ask questions and plan for steps in the home. Aim is to support parents to help children move through stages of development in EC curriculum. Overview of planning at all levels p14. d/e/f. P13, training included 'pedagogizing' doctors and other medical professionals in ECE. P16 complex network of health and education involvement P18 thoroughly evaluated program impact at all ages and different home/ group delivery. All show positive impact on children's outcomes. h.Whole section on monitoring outcomes g. Training at national, provincial, municipal and local levels. Doctors, day care teachers and other specialists trained as instructors and worked on plans with local groups. Training designed to match their professionals needs and cascaded through the levels. The report concludes that it is possible to roll out this programme in other contexts- see comparison with other Latin American countries p36 p37	Useful child development checklist in appendix. Gives overview of macro/ meso level org and support needed. Not massive amount of detail on training programme but very useful case of scaling up as a whole from all angles with a focus on integrated services

UNESCO 2015 ECCE personnel in low and middle income countries.	Children do better with better trained teachers. Community based ECE with trained educators can have positive effects but limited evidence of what sort of training is most significant. (p18) P41- some specific programs to follow up in diff countries	Follow up Rao et al. 2012 Cambodia. Search for inf on other training progs from p41
UNESCO 2010 Case studies of ECCE in sub-Saharan Africa.	Issues: Burkino Faso a. insufficient number of trained workers (even with frameworks for training in place) Trained ECCE staff assigned to ministeries instead of practice c/d/e/f. Training need more child psychology and development, must (and doesn't always) differentiate between kindergarten and school. Needs to involve the family and support children's transition. Professional development should be part of this. Need help with management and teaching techniques. Knowledge of HIV/AIDS crucial.p5/6 Congo Tiered system of teacher qualification and standard of Ed for teacher trainers and inspectors, pre-school teacher= 2 years, minimum training for ECCE is end of 3rd year of General education. a./e/f .Difficulties with malnutrition under 5 are significant. Need to include, hygiene practices and nutrition in ECCE and move trained teachers from the ministeries.p11 Ethiopia a. at this point there was nothing in place to ensure quality of ECCE educator training, lack of monitoring and standards, (e). issues with inappropriate environments (may need to be part of training), lack of parental involvement, inconsistent use of first language (p15). HIV/ AIDs education not included in pre-school. ECCE centred in urban areas. Recommends standardisation of training and curriculum (seems to be advancing based on inf from Frances) Lesotho Have a certificate in early childhood education (CECE) and framework for teacher ed as well as training for IECCD (integrated workers) based on a cascade system. a. However, the level of qualifications of these trainers is varied and many ECCE workers need more qualifications. d/e/f. Ongoing CPD includes HIV/Aids, integrated working, nutrition, children's rights, gender, inclusion. Emphasise need for more qualified trainers and more available training of a high standard. Nigeria a. standard of teacher training moderate at best. Limited resources, including water and waste disposal. Indigenous cultures not part of teaching, training does not include home languages or computer skills.	Add to lit review to support lack of trainers to train the teachers/ quality needed/ lack of fwk and monitoring and private provision p13 (Ethiopia) Overall, lack of quality trainers need focus on AIDs/ HIV Hygiene/ nutrition Follow up UNICEF rapid appraisal model Ntataise University of Pretoria

	Need ongoing programme of prof dev- HIV/ Aids, management and handling? South Africa new FE certificate in ECE but in reality most provision home based and teachers untrained. Advocate better co-ordination of services and infrastructure Best practice Generally community based and upskilling parents. In SA outreach from university trained teachers to ECE in rural deprived areas to provide CPD.	
UNESCO 2016 ECCE guidance for South East Asia.	p4/5 minimum requirements for certification p9 minimum teacher standards p15 key components of ECE 'competencies' Sets out expectations agreed by a range of South East Asian countries to develop policy and practice for ECCE tracher training, recruitment and deployment.	
UNICEF 2013 Promoting care for child development in community health services.	a. Worked well to add ECD programme to Lady health workers who were already working in communities. c. working with 0-2 year addresses issues of early nutrition and stunting and maternal mental health. d. need to help ECD workers to balance nutrition and other messages as the benefits of 'sprinkles' (additional supplements) were lost in other foci. e. Care for child development and nutrition and pre-natal well-being, alludes to breast feeding, supplements, handwashing, managing illness f. Skills emphasised over knowledge: to lead/model play activities, observe interaction, find out what families know, problem solve, counselling g. On the job training, mentoring and modelling from ECD workers at least one field support and observation per month and at least 2 monthly contact such as phone calls. Play and communication guide, packs and topics for weekly group meetings (resource kits including homemade toys), problem solving checklist and counselling checklists for LHW to complete (p. 9) Some attrition not explained(p30) h. on the job observation and feedback from ECD facilitators, supervisory checklist, records of meetings. Family satisfaction with programmes measured.	Don't know Lady HW starting point quals or detail of specific elements of their initial training.
Vargos-Barón 2005 Impact Evaluation Early Childhood Development	Web-based and face-to face interaction (communities of learners), Context sensitive courses and culturally relevant assignments, Local knowledge as well as published knowledge Teaching and learning strategies (p24) Including sending out materials, online communication, face to face workshops and video conferencing although this was problematic, locally focused research project. Course details (p26) and appendix	Offers case study for top tier-training / capacity building http://www.ecdvu.org/welcome.php

Virtual University in Sub-Saharan Africa (ECDVU).		
World bank 2013 ECD SABER country report Mali.	**P3. SABER checklist –what should be in place for ECD at country level-** use in LR. SABER (Systems approach) evaluates where countries are on a sliding scale of ECD policy development. Preprimary is not compulsory and there are no publicly supported parenting programmes. SABER and policy in Mali advocate an intersectoral approach (although this is barely developed) **P7 foci for different age ranges really useful** Specific directorate set up to co-ordinate provision of ECD across Govt departments. However in practice this is not working!p7 (final para) and is 'too education centric' not co-ordinating with other agencies. No criteria or methods to determine ECD spending within departments. **P11. Diagram about 'what do parents and children need to develop healthfully 0-**8' More ECD health and nutrition programmes (some national) than ECE and child protection, little for vulnerable children (summary diag p12) Small scale private, public and community ECE in diff regions.	Follow up references at the bottom of p7.

Appendix B – Invitation letter

DfID- funded project:

Reaching expert consensus on training different cadres in delivering

Early Childhood Development (ECD) at scale

Project Title: Reaching expert consensus on training different cadres in delivering early childhood development at scale - Delphi study

Research Team: Frances Aboud; Helen Hendry; Junko Miyahara; Emma Pearson; Abbie Raikes; Nirmala Rao; Iram Siraj.

Dear,

We are writing to you as a leading global expert in the field of Early Childhood Development (ECD), to invite you to participate in an exploratory study of expert views regarding training for ECD cadres. The study has been commissioned by the UK Government Department for International Development (DfID) and we are using a Delphi approach to find expert consensus on the provision of ECD training for different cadres of workers in employed in the field of ECD.

We would like to gain your expertise on (i) essential theoretical components and practical skills to be included in ECD training for any cadre, (ii) appropriate methods for delivery of training (including duration and intensity) for different cadres involved in delivery of ECD, (iii) factors needed to create enabling environments for scale-up of ECD training for different cadres, and (iv) possible methods for assessing impact of training.

The Delphi method involves reaching a level of consensus through repeated rounds of data collection. For this study, we will be conducting three rounds that we estimate will require no more than a total of 3 hours of your time during March–May 2017, as follows:

- Round One – open-ended, on-line questionnaire completed using Survey Monkey online survey tool. The questionnaire will consist of two parts – part one designed to gather information about experts' demographic and 'expertise' characteristics; part two with issues related to ECD training for different cadres.
- Round Two – based on results from Round One, a series of statements regarding ECD training will be posed and experts asked to rank using Likert scales, with options for open-ended clarification.
- Round Three – presentation of results from Round Two to experts, showing levels of consensus for each item rated in Round Two, requesting further feedback and response for final consensus-checking.

We feel that your expertise would be extremely beneficial in developing credible approaches to enhancing this crucial area of human resource development in the field of early childhood and would be most grateful if you would consider participating in this study. Please note, the timescale of the project requires that participants are able to respond by set dates. We are anticipating that the first Round of data collection will be completed by 24th March, 2017.

Confidentiality/Anonymity.

The data we collect from you will be kept confidential. It will be stored securely in line with the Data Protection Act.

For Further Information:

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Appendix C –Management of the Delphi process and Round One survey

Management of the process

In line with recent recommendations regarding accessibility and maintenance of response rates (Gill, Leslie, Grech, & Latour, 2013; Iqbal & Pipon-Young, 2009) Rounds One and Two were conducted using the online survey tool SurveyMonkey. A review of online survey tools conducted by Gill et al(2013) indicates that security measures employed by SurveyMonkey, including encryption of passwords, digital surveillance, intrusion detection systems and weekly network security audits, render SurveyMonkey a preferred option for this type of research. It also ensures full ethical protocols concerning anonymity and confidentiality of data, and security of data storage.

Prior to administration of each data collection round, surveys were sent to members of the research team who had not been involved in the design process, for testing and review. This process lead to enhancement revisions at each step. Details on survey content and analysis of results for each of the three Rounds are provided in Appendices D-G.

Recommended protocols (including personalised invitations / guidance for completing surveys; reminder emails, and follow-up 'thank-you' messages) were followed. In order to avoid 'forced' consensus responses (Thangaratinam & Redman, 2005), opportunities for open-ended responses and open communication team were provided to Expert Panel members throughout the period of data collection. This open channel of communication resulted in additional important insights. These are incorporated in the Results section.

Round One Survey

We are most grateful for your participation in this study, commissioned by the UK Government Department for International Development (DfID). As outlined in the invitation information, we are using a Delphi approach to find consensus among globally recognised experts, on the provision of ECD training for different cadres of workers employed in the field of ECD. This survey forms Round One of the Delphi process. Once we have received data from all participating experts, we will analyse findings and move forward to Rounds Two and Three. We anticipate that the full process should not require more than 3 hours of your valuable time. Once again, we greatly appreciate your participation.

Should you have any concerns or queries about the survey, please contact emma.pearson@bishopg.ac.uk.

	Consent Form	**Yes**	**No**
1	I confirm that I have read and understand the invitation explaining this research project, and I have had the opportunity to ask questions.		
2	I understand that my participation in this survey is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline.		
3	I give permission for my anonymised responses to be used during the Delphi process, and to be accessed by members of the research team. I understand that, unless I give permission, my name will not be linked with the research materials, and I will not be identifiable during the Delphi survey or in the reports that result from the research.		
4	I agree to take part in this research project.		
5	Our team is required, under the UK Data Protection Act, to ensure that participants are fully informed about use of data collected as part of any research project. Please indicate that you have read the following, by clicking the 'yes' box provided. I understand that data collected from me during my participation in this study will be stored securely and that any computer files containing information about me will be made anonymous, unless I give permission otherwise. I agree to members of the research team recording and processing my data anonymously. I understand that my data will be used only for this purpose and my consent is conditional on the research team complying with their duties and obligations under relevant Data Protection Acts.		

Delphi Questionnaire Round 1

1.	Please outline the role/s of ECD cadres that your work has been primarily focused on. For example: community health workers, pre-school ECE practitioners, traditional birth attendants, parent group leaders	
2.	Please outline the nature of programmes that you have led, or been involved in (i.e. primary beneficiaries, delivery agents and training methods)	
3.	Have you had any direct experience with a training curriculum, with preparation of training materials, with delivering ECD training, and/or assessing cadres' competencies? If so, please outline the nature of this experience.	
4.	What broad characteristics, particularly in terms of sensitivity and relationship-building, do you consider to be important for practitioners working in the field of ECD?	

For questions 5-13, 4 categories of ECD cadres are listed. You may respond to one or more of these categories, according to your preference. Although we have asked about essential knowledge and high priority methods, you may also describe *inessential knowledge and low priority methods* if you feel strongly about these.

5. What essential skills do ECD cadres require as components of an ECD training programme?	
Certified education professional	
Certified health professional	
Non-certified paraprofessional	
Other (please specify)	

6. What essential knowledge do ECD cadres require as components of an ECD training programme?	
Certified education professional	
Certified health professional	
Non-certified paraprofessional	
Other (please specify)	

7. What essential qualities, attributes and qualifications do ECD cadres require?	
Certified education professional	
Certified health professional	
Non-certified paraprofessional	
Other (please specify)	

8. What criteria should (or should not) be used to select people for training as an ECD cadre?	
Certified education professional	
Certified health professional	
Non-certified paraprofessional	
Other (please specify)	

9. In your opinion what are the most effective methods of organising and delivering ECD training?	
Certified education professional	
Certified health professional	
Non-certified paraprofessional	
Other (please specify)	

10. What is the minimum period of training desirable for an ECD cadre?	
Certified education professional	
Certified health professional	
Non-certified paraprofessional	
Other (please specify)	

11. How should ECD cadres be monitored and supported once trained? Can you give any examples based on your experience?	
Certified education professional	
Certified health professional	
Non-certified paraprofessional	
Other (please specify)	

Training materials

12. What training materials should be used for ECD training?	
Certified education professional	
Certified health professional	
Non-certified paraprofessional	
Other (please specify)	

Administration and monitoring / follow-up following training

13. Who should be responsible for administering and monitoring ECD training?	
Certified education professional	
Certified health professional	
Non-certified paraprofessional	
Other (please specify)	

Scaling up ECD training

14. What features of organisation at different levels need to be in place to scale up ECD training?	
At community level	
At local-district level	
At Government / policy level	

15. What are your key recommendations for key steps in the process of scaling up ECD training?

16. Do you have any other suggestions about how ECD training should be differentiated, in terms of content or method of delivery, for different cadres e.g. medical practitioners, community health workers, parent group leaders, pre-school teachers?

17. Based on your experience and responses to the questions above, what recommendations do you have for assessing the short-term impact of ECD training?

18. Based on your experience and responses to the questions above, what recommendations do you have for assessing the long-term impact of ECD training?
19. Are there any other suggestions / comments you would like to make about provision of ECD training for different cadres?

Certified education professional	
Certified health professional	
Non-certified paraprofessional	
Other (please specify)	

Thank you for taking the time to complete Round One.

We will be in contact again soon with the Round Two survey.

Appendix D – Analysis of Round One responses and Round Two survey

Analysis of Round One responses

Responses to the open-ended Round One questions were analysed independently by two members of the research team, using a content analysis approach. Similar responses were grouped together into one statement and organised into key categories, with some adjustment to the original categories to reflect patterns in response, as follows:

1. Responses to questions in the section titled 'desirable qualities and qualifications' appeared to indicate an emphasis among expert panel members on essential *dispositions*, or personal qualities. Furthermore, open-ended responses indicated that, while 'ideal', requiring specific qualifications prior to ECD cadres training may not be realistic in most low-resource contexts. For the Round Two survey, therefore, these items were grouped within a category named '*dispositions*'.
2. Responses confirmed (i) distinctions between the different cadres groups (certified education professionals; certified health professionals and non-certified para-professionals) to be reflected in the Round Two structure, and (ii) similar needs *across* cadres groups that could be grouped around a category of 'all ECD cadres'. Therefore, Round Two included a combination of items to be applied across all groups (indicating shared requirements / needs) and some distinct items, pertinent to each group respectively.

Round Two Survey

Dear,

Thank you for your timely and insightful completion of the first round of this Delphi study. The open-ended responses generated a rich set of insights into training needs for ECD cadres in low-resource contexts. We greatly appreciate your invaluable expertise, given in the face of many other competing demands on your time.

We would now like to invite you to complete the Round Two questionnaire. The questionnaire has been developed through a process of reduction and simplification of both similar and diverse responses collected from Round One. Some of the more detailed recommendations for specific training programmes, organisation and materials that you also provided are of great value and these essential details will form part of the findings narrative in our final report, a copy of which we will send to you upon completion of the project.

Please click on the 'Begin Survey' button below to access the Round Two survey (guidance for saving and exiting the survey is provided on the first page of the survey).

Once again, the research team is enormously grateful for your expertise and time. Thank you for your time and welcome to Round Two.

Survey guidance

As indicated in the invitation email, this survey comprises items developed on the basis of responses collected during Round One, and is presented in 6 sections:

A. Dispositions; B. Essential skills; C. Essential Knowledge; D. Training; E. Assessing Impact of ECD training, and F. Scale-up of ECD Training.

Items within each section are rated on a scale from 0 (Not important / applicable) to 7 (Essential).

Underneath each item, a 'comments' box is available for any (optional) additional feedback.

Each section appears on a separate page, which means that your data should be saved each time you click the NEXT button. You should therefore be able to return to the survey (provided you are using the same electronic device as the one on which you began answering the survey). However, if you would prefer to complete the questionnaire using a paper-based version, please contact Clare Hemming (clare.hemming @bishopg.ac.uk) or Emma Pearson (emma.pearson@bishopg.ac.uk).

In order to maintain our scheduled timeline for DFID we would be most grateful if you could complete the questionnaire by Friday 21st April.

A. DISPOSITIONS

The following items relate to desirable ECD cadres dispositions. Please rate the importance of each item (NB. These apply across all ECD cadres categories):

		Not important	Neutral	Somewhat important				Essential	
		0	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1.	Knowledgeable and Sensitive to local context								
2.	Sensitive to needs of target group								
3.	Respectful of diverse groups								
4.	Respectful of parents' views and aspirations								
5.	Treats children with respect								
6.	Shows empathy and understanding of children								
7.	Open to feedback and others' ideas								
8.	Open to innovation								
9.	Interested in children, their learning and well-being (demonstrated through previous experience, voluntary or formal)								
10.	Has a sense of humour								
11.	Curious and eager to learn / motivated								
12.	Persistent (in overcoming barriers)								
13.	Flexible and creative								
14.	Confident								
15.	Hard-working and energetic								
16.	Well-organised								
17.	Caring								

18.	Patient								
19.	Elicits trust and respect from community								

B. ESSENTIAL SKILLS

The following items relate to essential skills for ECD cadres. Please rate the importance of each item (NB. The first section applies to <u>all ECD cadres;</u> subsequent sections apply respectively to Certified Education Professionals; Certified Health Professionals, and Non-Certified Para-Professionals):

		Not important	Neutral	Somewhat important				Essential	
	<u>All trained ECD cadres</u> need to be able to:	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1.	Work effectively with peers and others								
2.	Collaborate and cooperate with other related sectors / agencies								
3.	Work with and involve parents								
4.	Apply good listening, observation and communication skills								
5.	Interact responsively with children								
6.	Interact responsively with parents								
7.	Reflect on practice and self-evaluate								
8.	Actively problem-solve and look for solutions to challenges								
9.	Be accountable – implement and monitor ECD programmes in line with guidance and instructions								
	Certified Education Professionals need to be able to <u>also</u>:								
10.	Apply creativity in developing learning plans and resources								
11.	Demonstrate strong language skills								
12.	Facilitate effectively – articulate complex ideas in simple ways								
13.	Work effectively in multi-lingual environments								
14.	Work with local community members and value their views								
15.	Connect with parents, families and communities								
16.	Modify practice for individual children's needs								
17.	Identify long-term goals for ECD programmes								

	Certified Health Professionals need to be able to <u>also</u>:								
18.	Facilitate effectively – articulate complex ideas in simple ways								
19.	Coach effectively - instruct and mentor others								
20.	Use dialogue to communicate, rather than just instruction								
21.	Sensitively and effectively influence and challenge perceptions or customs that are counter to child rights								
22.	Work with local community members and value their views								
23.	Connect with parents, families and communities								
24.	Track / monitor children's development, as well as physical health needs								
	Non-Certified Para- Professionals need to be able to <u>also</u>:								
25.	Make simple toys and learning materials for children, with caregivers								
26.	Make use of available resources to model / set up language-rich, stimulating environment for young children								
27.	Adapt new programme materials and content to existing programmes								
28.	Sensitively and effectively influence perceptions or customs that are counter to child rights								
29.	Work with local community members and value their views								
30.	Connect with parents, families and communities								
31.	Modify practice for individual children's needs								

C. ESSENTIAL KNOWLEDGE

The following items relate to essential knowledge for ECD cadres. Please rate the importance of each item (NB. The first section applies to <u>all ECD cadres;</u> subsequent sections apply respectively to Certified Education Professionals; Certified Health Professionals, and Non-Certified Para-Professionals):

<u>All trained</u> ECD cadres need to know about:

		Not important	Neutral			Somewhat important		Essential	
		0	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1.	Principles of holistic child development (multiple domains)								
2.	Child development milestones								
3.	Child rights in the early years								
4.	How to identify developmental delay and refer children to appropriate professionals / support								
5.	Local referral systems								
6.	Neuroscience and the significance of early brain development								
7.	Home and family context impacts on learning and development								
8.	The importance of quality interactions for infant and child development								
9.	How to assess parenting/ caregiving practices								
10.	How to respond sensitively with parents and establish positive, trusting relationships								
11.	How to monitor children's progress								
12.	Accountability – how to follow programme guidelines, monitor and identify / demonstrate outcomes								

<u>Certified Education Professionals</u> trained in ECD need <u>also</u> to know about:

		Not important	Neutral	Somewhat important				Essential	
		0	**1**	**2**	**3**	**4**	**5**	**6**	**7**
13.	School readiness concepts								
14.	How to identify and support pre-literacy and pre-numeracy skills								
15.	Links between evidence and practice								
16.	How to develop curriculum and lesson plans								
17.	How to adapt / apply curriculum approach to local context								
18.	Early childhood competencies and learning activities / experiences that support them								
19.	Play-based learning approaches and their importance for children's holistic development								
20.	How to plan learning experiences / adapt curriculum to fit individual children's needs								
21.	How to develop new activities and materials								
22.	Classroom management strategies for large and small groups of children								
23.	How to provide a range of learning experiences including varied themes and areas of learning								
24.	How to balance play and directed learning								
25.	Setting learning and development targets for children								
26.	How children learn / child-centred learning approaches								
27.	Parenting and early stimulation for supporting early learning and development								
28.	Principles of inclusive practice								
29.	How to appropriately support children and families from diverse backgrounds								
30.	Local networks and resources that support children and families								

<u>Certified Health Professionals</u> trained in ECD need <u>also</u> to know about:

		Not important	Neutral	Somewhat important				Essential	
		0	**1**	**2**	**3**	**4**	**5**	**6**	**7**
31.	Early childhood health and nutrition needs								
32.	Maternal and new-born health needs								
33.	The impact of toxic stress on early development								
34.	The long-term impact of development during the early years of life								
35.	The significance of the first 1000 days for later development; evidence from neuroscience								
36.	How to support and promote care during pregnancy in home-based settings								
37.	How to support and promote care during pregnancy in facility-based settings								
38.	Identification of high risk pregnancy and referral actions								
39.	Preventive, promotive health practices and care for young children and families								
40.	How to provide neonatal care in home -based settings								
41.	How to provide neonatal care in facility-based settings								
42.	Maternal and child nutrition (breastfeeding support; infant feeding support)								
43.	Using different tools to monitor children's growth and development								
44.	Signs of maternal depression and appropriate support, including referrals								

45.	Identifying developmental delay in infants and young children, and providing appropriate referral advice								
46.	How children learn / child-centred learning approaches								
47.	Parenting and early stimulation for supporting early learning and development								
48.	Principles of inclusive practice								
49.	How to appropriately support children and families from diverse backgrounds								
50.	Local networks and resources that support children and families								

<u>Non-certified Para-professionals</u> trained in ECD need <u>also</u> to know about:

		Not important	**Neutral**	**Somewhat important**				**Essential**	
		0	**1**	**2**	**3**	**4**	**5**	**6**	**7**
51.	WASH (Water, Sanitation & Hygiene) guidelines								
52.	The importance of early stimulation and responsive caregiver-infant / child interactions								
53.	How to support and guide mothers and primary caregivers in providing early stimulation and warm, responsive caregiving								
54.	Basic running / administration of programmes								
55.	How to establish effective working relationships								
56.	Understanding of local networks and resources available to parents and families								
57.	Provision of first aid								
58.	How to observe children, to support parents in recognising developmental changes in their children								
59.	How to identify and support pre-literacy and pre-numeracy skills								

60.	How children learn / child-centred learning approaches								
61.	Parenting and early stimulation for supporting early learning and development								
62.	Principles of inclusive practice								
63.	How to appropriately support children and families from diverse backgrounds								
64.	Local networks and resources that support children and families								

D. TRAINING

SYSTEMS / APPROACHES:

The following statements refer to <u>systems and possibilities for approaches to</u> ECD training. Please indicate how strongly you agree with / support each statement (NB. These apply across all ECD cadres categories):

		Not important	**Neutral**	**Somewhat important**				**Essential**	
		0	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1.	Training should be operated through universities, colleges or other accredited institutions (both pre- and in-service)								
2.	Training should be aligned with recognised professional standards, if available								
3.	Training should be centralised and administered by government								
4.	Training should be administered by a recognised institution (such as NGO; training institute)								
5.	A generalised 'ECD' course should be offered to all cadres working in ECD (including, for example, monitoring; social welfare; child protection), with additional specialisations offered to cadres from different professions / backgrounds, where applicable								
6.	It would be valuable to have COMBINED training sessions, where those involved in ECD from different professions / backgrounds come together								
7.	Training should provide some clear differentiation between cadres from different professions / backgrounds, because the needs are different.								
8.	Training for all cadres should incorporate a strong field-based component, where trainees / candidates spend part of their time receiving instruction in formal settings, followed by implementation of what they have learned in their respective professional settings (community; clinic; early childhood								

	centre).								
9.	Training should be delivered by people who are experienced in providing adult education								
10.	There should be opportunities for both pre-service and in-service training for all ECD cadres								
11.	There should be clear professional / training pathways for all ECD cadres								
12.	There should be opportunities for different levels of training (ie. initial; intermediate; advanced) for various ECD cadres working within provision of early childhood services		1	2	3	4	5	6	7
	FOLLOW-UP MENTORING & SUPERVISION								
13.	Training on its own is far less effective than training that is supported by follow-up supportive supervision								
14.	Training should be followed by on-site, on-going mentoring and supervision								
15.	Supervisors should be experienced								
16.	Supervisors should be inspirational								
17.	Effective supervisor training is critical for programme success								
18.	Supervision and monitoring should be delivered in a non-threatening manner								
19.	Supervision and monitoring should include emphasis on self-monitoring (for example, via self-monitoring checklists and forms)								
20.	Observations of practices as part of supervision should be conducted using well-designed checklists								
21.	Observations of practices as part of supervision should be followed up by dialogue and reflection sessions								
22.	Systems of supervision and monitoring should provide opportunities for regular sharing sessions with peers								

TEACHING METHODS

The following items refer to <u>possible teaching methods</u> for use in delivery of ECD training. Please indicate how applicable each item is for each category of cadre (NB. The first section applies to <u>all ECD cadres;</u> subsequent sections apply respectively to Certified Education Professionals and Non-Certified Para-Professionals only):

		Not applicable	Neutral	Somewhat applicable				Extremely applicable	
		0	**1**	**2**	**3**	**4**	**5**	**6**	**7**
	Methods for training all ECD cadres should include:								
23.	Learning from examples of good practice /case studies								
24.	Peer to peer learning in groups								
25.	Reflection on practice								
26.	Participatory/ interactive sessions								
27.	Combination of online and face to face delivery (where possible)								
28.	Supportive supervision and mentorship by skilled personnel								
29.	Planned refreshers and continuing professional development sessions								
30.	Analysing examples of effective practice								
31.	Combination of instruction and active learning strategies, such as role-play								
32.	Interactive sessions (Q & A)								
	Methods for training Certified Education Professionals should <u>also</u> include:								
33.	Focus on delivery of a specific curriculum / package, to ensure in-depth knowledge of each aspect and accompanying materials								
34.	Cadres carry out their own local/ classroom / practice-based research into practice as part of the training process (cycle of input/ application in practice/ supervision and follow up sessions)								

35.	Cadres develop and use practical resources <u>during</u> training								
	Methods for Non-Certified Para-professionals should <u>also</u> include:								
36.	Focus on delivery of a specific curriculum / package, to ensure in-depth knowledge of each aspect and accompanying materials								
37.	Cadres carry out their own local/ classroom / practice-based research into practice as part of the training process (cycle of input/ application in practice/ supervision and follow up sessions)								
38.	Cadres develop and use practical resources <u>during</u> training								
39.	Cadres have opportunity to observe experienced peers 'in action' in home or early childhood settings								

TEACHING MATERIALS – ALL CADRES

The following statements refer to <u>possible teaching materials</u> for use in delivery of ECD training. Please indicate how applicable each is *(NB. The first 11 items apply across all ECD cadres categories, items 12-14 apply to Certified Education Professionals only, and item 15 to Non-certified Para-Professionals):*

		Not applicable	Neutral	Somewhat applicable				Extremely applicable	
	Materials for training all ECD cadres should include:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
1.	Case studies of effective practice								
2.	Written modules of study, including theory, practice, learning materials, and assessment tools								
3.	Culturally sensitive text books								
4.	Exposure to a variety of materials but with a view to fit with national policies, curriculum guidelines								
5.	Video of good (or bad) practices, such as effective (and not effective) pedagogical interactions								
6.	Materials that are locally developed and accredited								
7.	A wide variety of materials that combine theory and practice with access to research findings								
8.	Individual ECD information booklets as reference for each cadre during and after training								
9.	Visuals (posters)								
10.	Job aides (tip sheets etc)								
	Methods for training Education Professionals should <u>also</u> include:								
11.	Teacher made resources as examples for cadres to make their own								
12.	Puppets								

13.	Established ECE curriculum tailored to level of practitioners								
	Methods for training Non-Certified Para-Professionals should <u>also</u> include:								
14.	Programmes / manuals / ECE curriculum (training should closely follow guides and /or curriculum that cadres will be implementing, to ensure that they are equipped to deliver by completion of training)								

E. ASSESSING IMPACT OF ECD TRAINING

The following items refer to <u>possibilities for documentation of short- and long-term impacts resulting from provision of ECD training</u>. Please indicate how applicable each item is (NB. These apply across all ECD cadres categories):

		Not applicable	Neutral		Somewhat applicable			Extremely applicable	
	Short-term impacts of ECD training should be documented via:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
1.	Baseline assessment of trainees and post-test at end of training								
2.	Evaluation of how knowledge is implemented after training, via observations of practice								
3.	Validated observational measures of process quality in ECE settings following training (e.g. ECERS or <u>adapted versions of such tools</u>)								
4.	Validated observational measures of community health worker parent interactions following training (e.g., HOVRS or <u>adapted versions of such tools</u>)								
5.	Tools developed to support self-evaluation by ECD cadres								
6.	Documented changes in relationships with community and families								
7.	Documented changes in levels of teamwork among respective cadres								
8.	Documented changes in creating child-centred, age-appropriate learning environments								
9.	Documented goal setting for 6-months, 12-months, 24-months, 5-years based on programme specifics (e.g. at minimum in the first 6-months is content being delivered and are early learning opportunities improving, are children/families participating?)								
10.	Use of follow up questionnaires asking cadres about self-reported changes in practice								

11.	Use of follow up questionnaires for parents and wider community about perceived changes in the setting or activities								
12.	Child-centred impact assessment – Use of follow up questionnaires for children about perceived changes in the setting or activities								

		Not applicable	Neutral	Somewhat applicable				Extremely applicable	
	Long-term impacts of ECD training should be documented via:	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
13.	Pupil tracking (adjustments to drop out rates or attendance at primary school over the long-term)								
14.	Pupil progress tracking by teachers at the beginning, middle and end of a year								
15.	Non-high-stakes monitoring of curriculum-based child outcomes								
16.	Assessment of knowledge and practice of cadres a year or 2 after training								
17.	Documentation of ECD cadres roles in supporting sustainability of ECD programmes								
18.	Controlled trials that vary key aspects of training - intensity, duration, frequency, trainer characteristics (any controlled trials should take account of the likely impact of various influences, such as poor school conditions)								
19.	Documentation of ECD cadres retention rates								
20.	Evaluation using child development assessment tools to measure impact on holistic development - implemented annually								
21.	Documentation of 'growth' of ECD programmes (ie. ECD cadres roles in building and improving provision of ECD)								

F. SCALE-UP OF ECD TRAINING

The following items refer to <u>requirements / needs for scale-up of ECD training.</u> Please rate the importance of each item (NB. These apply across all ECD cadres categories):

		Not important	Neutral	Somewhat important				Extremely important	
		0	**1**	**2**	**3**	**4**	**5**	**6**	**7**
	Across 'the system' as a whole:								
1.	Availability of trained <u>personnel</u> to support ECD training initiatives								
2.	Stable workforce to support scale-up at all levels								
3.	Accredited training unit or institute at national/regional level to set policy and procedure								
4.	Commitment to intervention and accountability across all levels of administration								
5.	Centralised plans for on-going supervision and mentoring								
6.	Financing plan / budget								
7.	Reflection on gaps in practice (based on assessment of existing needs and capabilities)								
8.	Holistic ECD policy, inter-ministerial coordination mechanism and action plan								
9.	Establishment of strong, knowledgeable, dedicated 'mobile' teams at central government level who work across sectors and levels of administration (central; district, local) to ensure consistency and continuity								
10.	Alliance of formal and non-formal sectors to ensure reach/coverage of training to all ECD cadres								

11.	Established, recognised professional standards and clear career pathways that offer progression from basic training through to post-graduate level								
12.	System of salary increments / incentives related to progression through these scales								
13.	Standardised and piloted training materials / modules								
14.	Attention to how to scale to remote areas								
15.	Use and recognition of flexible, portable training tools, such as online learning modules								
16.	Advocacy for ECD cadres with low status, to improve working status and remuneration								
17.	Active ECCD management committee at community level								
18.	Use of 'model' centres / programmes to promote ECD across communities								
19.	Facilitation of 'self scale-up' at district and community level, through linkage across communities, schools and programmes								
20.	Commitment from various stakeholders (local leaders / elders; faith-based institutes; government departments) at local level								
21.	Allocation of space for training								
22.	Cooperation across local NGO's; government departments; schools at local and district levels								
23.	Competent local trainers available at community level, who understand local culture, language and needs								
24.	Strategic location of training centres – for accessibility and ownership among local communities								

THANK-YOU, ONCE AGAIN, FOR GIVING UP YOUR VALUABLE TIME AND CONTRIBUTING YOUR EXPERTISE TO THIS PROJECT

Appendix E – Analysis of Round Two survey responses

For Rounds Two and Three, all responses, in the form of raw scores, were extracted from SurveyMonkey and transferred to Excel and SPSS for analysis. Data were eyeballed for completion trends. All items appeared to have been completed in accordance with guidance. Data for Sections B, C, and D (which included items specific to different cadres groups) was further sub-divided by cadre for analyses. Mean and standard deviation are presented in the table below, to give an overall measure of response per item, however items were initially ranked (from largest to smallest) by median, as this measure is more appropriate for ordinal level data such as these, and then by mean as a more sensitive indication of central tendency.

Frequency data and descriptive statistics were collated from the surveys in order to assess levels of consensus per item. These are presented in the table below as a percentage of the sample who rated the item as:

- 'essential' (7 - top importance measure),
- 'essential - 7' or '6' (top two importance measures),
- 'essential - 7', '6' or '5' (top 3 importance measures).

Items were categorised as having reached *'strong consensus'* if

>90% of participants rated them in the top 2 levels of importance, OR

>80% of participants rated using the top 2 responses AND 100% of participants used the top 3 levels of importance.

Items were categorised as achieving *'consensus'* if

>80% of participants rated them in the top 2 levels of importance, OR 90% in the top 3.

The remaining items were deemed not to have achieved consensus and were labelled '*low consensus'*.

Every item received at least one response of "essential" and so the maximum score was 7 in all cases.

	Italicised = revised / grey font = deleted								
		% top 3 (5, 6, or 7)	**% top 2 (6,7)**	**% essential (7)**	**mean**	**median**	**(SD)**	**Min rating**	**# Respondents**
	A. Dispositions								
A5	Treats children with respect -	100	100	93	6.93	7.00	0.27	6	14
A6	Shows empathy and understanding of children and families -	100	100	79	6.79	7.00	0.43	6	14
A17	Caring -	100	100	79	6.79	7.00	0.43	6	14
A3	Respectful of diverse groups -	93	93	71	6.57	7.00	0.85	4	14
A7	Open to feedback and others' ideas -	100	93	57	6.50	7.00	0.65	5	14
A19	Elicits trust and respect from community -	100	86	43	6.29	6.00	0.73	5	14
A18	Patient -	93	79	64	6.36	7.00	1.01	4	14
A1	Knowledgeable and sensitive to local context -	93	71	64	6.29	7.00	1.07	4	14
A2	Sensitive to needs of target group -	93	79	64	6.14	7.00	1.66	1	14
A11	Curious and eager to learn / motivated -	93	57	57	6.07	7.00	1.14	4	14
A8	*Open to innovation* *(Revised to: Open to possibilities for changing / enhancing practice to better suit the needs of children and families)*	93	64	36	5.86	6.00	1.17	3	14
A4	Respectful of parents' views and aspirations -	86	79	64	6.29	7.00	1.14	4	14
A9	Interested in children, their learning and well-being (demonstrated through previous experience, voluntary or formal) -	86	71	57	6.14	7.00	1.17	4	14
A12	Persistent (in overcoming barriers) -	100	71	43	6.14	6.00	0.86	5	14
A15	Hard-working and energetic -	100	71	43	6.14	6.00	0.86	5	14
A13	Flexible and creative -	100	62	46	6.08	6.00	0.95	5	14
A16	Well-organised -	79	57	43	5.79	6.00	1.25	4	14
A14	Confident -	86	50	43	5.64	5.50	1.50	2	14
A10	Has a sense of humour -	57	43	21	4.86	5.00	1.70	2	14

	B. Essential Skills - All ECD cadres:								
B5	Interact responsively with children -	100	100	79	6.79	7.00	0.43	6	14
B3	Work with and involve parents -	100	86	71	6.57	7.00	0.76	5	14
B6	Interact responsively with parents -	100	92	62	6.54	7.00	0.66	5	14
B4	Apply good listening, observation and communication skills -	100	93	57	6.50	7.00	0.65	5	14
B8	Actively problem-solve and look for solutions to challenges -	100	85	54	6.38	7.00	0.77	5	14
B7	Reflect on practice and self-evaluate -	100	79	64	6.43	7.00	0.85	5	14
B1	Work effectively with peers and others -	100	79	50	6.29	6.50	0.83	5	14
B2	Collaborate and cooperate with other related sectors / agencies -	86	43	36	5.57	5.00	1.28	3	14
B9	Be accountable - implement and monitor ECD programmes in line with guidance and instructions -	86	64	43	5.93	6.00	1.14	4	14
	Certified education professionals need to be able to also:								
B10	Apply creativity in developing learning plans and resources -	100	86	50	6.36	6.50	0.74	5	14
B16	Modify practice for individual children's needs -	100	79	64	6.43	7.00	0.85	5	14
B15	Connect with parents, families and communities -	93	79	50	6.21	6.50	0.97	4	14
B11	Demonstrate strong language skills -	93	79	43	6.14	6.00	0.95	4	14
B12	Facilitate effectively - articulate complex ideas in simple ways -	92	69	46	6.08	6.00	1.04	4	14
B14	Work with local community members and value their views -	93	64	29	5.86	6.00	0.95	4	14
B17	Identify long-term goals for ECD programmes -	64	64	36	5.64	6.00	1.34	4	14
B13	*Work effectively in multi-lingual environments* *(Revised to: Work effectively in multi-lingual environments (where applicable))*	71	50	36	5.36	5.50	1.74	1	14
	Certified health professionals need to be able to also:								
B18	Facilitate effectively - articulate complex ideas in simple ways -	92	92	69	6.54	7.00	0.88	4	13
B19	Coach effectively - instruct and mentor others -	100	85	62	6.46	7.00	0.78	5	13
B23	Connect with parents, families and communities -	100	77	62	6.38	7.00	0.87	5	13
B24	Track / monitor children's development, as well as physical needs -	92	75	75	6.33	7.00	1.30	3	12
B21	Sensitively and effectively influence and challenge the perceptions or customer that are counter to child rights -	92	77	46	6.15	6.00	0.99	4	13

B20	Use dialogue to communicate, rather than just instruction -	92	69	54	6.15	7.00	1.07	4	13
B22	Work with local community members and value their views -	85	69	38	5.92	6.00	1.12	4	13
	Non-certified para-professionals need to be able to also:								
B26	Make use of available resources to model/set up language-rich, stimulating environments for young children -	100	77	62	6.38	7.00	0.87	5	13
B30	Connect with parents, families and communities -	92	77	54	6.23	7.00	1.01	4	13
B31	Modify practice for individual children's needs -	92	69	46	6.08	6.00	1.04	4	13
B29	Work with local community members and value their views -	83	75	25	5.83	6.00	1.03	4	12
B28	Sensitively and effectively influence perceptions or customs that are counter to child rights -	85	77	31	5.69	6.00	1.65	1	13
B25	Make simple toys and learning materials for children, with caregivers -	69	62	38	5.62	6.00	1.45	3	13
B27	Adapt new programme of materials and content to existing programmes -	75	33	25	4.58	5.00	2.35	0	12
	C. Essential Knowledge - All ECD cadres:								
C1	Principles of holistic child development (multiple domains) -	100	86	79	6.64	7.00	0.74	5	14
C8	The importance of quality interactions for infant and child development -	93	93	79	6.64	7.00	0.84	4	14
C10	How to respond sensitively to parents and establish positive, trusting relationships -	100	86	57	6.43	7.00	0.76	5	14
C2	Child development milestones -	93	79	57	6.21	7.00	1.19	3	14
C7	Home and family context impacts on learning and development -	100	71	64	6.36	7.00	0.93	5	14
C11	How to monitor children's progress -	100	64	50	6.14	6.50	0.95	5	14
C4	How to identify developmental delay and refer children to appropriate professionals/support -	100	69	31	6.00	6.00	0.82	5	14
C3	Child rights in the early years -	93	57	43	5.93	6.00	1.07	4	14
C5	*Local referral systems* *(Revised to: How to locate and work with other sectors in the community (health, education; welfare and others as appropriate to context / cadre)*	79	71	50	6.00	6.50	1.24	4	14
C9	How to assess parenting/caregiving practices -	85	77	31	5.92	6.00	1.04	4	14
C12	Accountability - how to follow programme guidelines, monitor and identify/demonstrate outcomes -	83	67	42	5.83	6.00	1.34	3	14

C6	*Neuroscience and the significance of early brain development -* *(Revised to: Early brain development and links to the importance of early stimulation)*	79	43	29	5.43	5.00	1.28	3	14
	Certified education professionals need to also know about:								
C19	Play-based learning approaches and their importance for children's holistic development -	100	100	79	6.79	7.00	0.43	6	14
C26	How children learn / child-centred learning approaches -	93	86	64	6.43	7.00	0.94	4	14
C20	How to plan learning experiences/adapt curriculum to fit individual children's needs -	100	86	64	6.50	7.00	0.76	5	14
C18	Early childhood competencies and learning activities/experiences that support these -	93	86	71	6.50	7.00	0.94	4	14
C22	Classroom management strategies for large and small groups of children -	93	86	57	6.36	7.00	0.93	4	14
C23	How to provide a range of learning experiences including varied themes and areas of learning -	100	79	57	6.36	7.00	0.84	5	14
C14	How to identify and support pre-literacy and pre-numeracy skills -	92	85	62	6.31	7.00	1.18	3	14
C24	How to balance play and directed learning -	93	86	71	6.29	7.00	1.64	1	14
C21	How to develop new activities and materials -	93	71	57	6.21	7.00	1.05	4	14
C17	How to adapt/apply curriculum approaches to local context -	92	69	62	6.08	7.00	1.50	2	13
C29	How to appropriately support children and families from diverse backgrounds -	92	85	31	6.08	6.00	0.86	4	13
C16	*How to develop curriculum and lesson plans -* *(Revised to: How to develop lesson plans in line with the curriculum)*	79	64	57	5.93	7.00	1.44	3	14
C25	Setting learning and development targets for children -	86	71	50	6.07	6.50	1.14	4	14
C28	Principles of inclusive practice -	86	71	43	6.00	6.00	1.11	4	14
C30	*Local networks and resources that support children and families -* *(Revised to: How to work with communities to establish and manage an ECD programme)*	86	64	36	5.86	6.00	1.10	4	14
C27	Parenting and early stimulation for supporting early learning and development -	79	71	43	5.93	6.00	1.21	4	14
C13	School readiness concepts -	86	79	43	5.79	6.00	1.76	1	14
C15	Links between evidence and practice -	86	50	43	5.57	5.50	1.70	1	14

	Certified health professionals need to also know about:								
C31	Early childhood health and nutrition -	100	100	92	6.92	7.00	0.28	6	14
C39	Preventive, promotive health practices and care for young children and families -	100	100	92	6.92	7.00	0.28	6	13
C32	Maternal and new-born health needs -	100	100	92	6.77	7.00	0.83	4	13
C42	Maternal and child nutrition (breastfeeding support; infant feeding support) -	100	92	77	6.69	7.00	0.63	5	13
C34	The long-term impact of development during the early years of life -	100	85	69	6.54	7.00	0.78	5	13
C38	Identification of high risk pregnancy and referral actions -	92	92	85	6.46	7.00	1.66	1	13
C47	Parenting and early stimulation for supporting early learning and development -	100	85	62	6.46	7.00	0.78	5	13
C33	*The impact of toxic stress on early development - Item moved to apply to ALL ECD CADRES in response to feedback*	*92*	*77*	*69*	*6.62*	*7.00*	*0.77*	*5*	*13*
C45	Identifying developmental delay in infants and young children, and providing appropriate referral advice -	100	77	62	6.38	7.00	0.87	5	13
C44	Signs of maternal depression and appropriate support, including referrals -	100	77	54	6.31	7.00	0.85	5	13
C35	The significance of the first 1000 days for later development; evidence from neuroscience -	92	77	69	6.31	7.00	1.25	3	13
C36	How to support and promote care during pregnancy in home-based settings -	92	75	67	6.25	7.00	1.29	3	12
C40	How to provide neonatal care in home-based settings -	92	62	54	5.85	7.00	1.72	1	13
C41	How to provide neonatal care in facility-based settings -	92	62	54	5.85	7.00	1.72	1	13
C46	How children learn / child-centred learning approaches -	100	54	46	6.00	6.00	1.00	5	13
C48	Principles of inclusive practice -	100	62	38	6.00	6.00	0.91	5	13
C49	How to appropriately support children and families from diverse backgrounds -	100	50	42	5.92	5.50	1.00	5	12
C37	How to support and promote care during pregnancy in facility-based settings -	85	85	69	6.31	7.00	1.32	3	13
C50	Local networks and resources that support children and families -	85	69	69	6.23	7.00	1.24	4	13
C43	Using different tools to monitor children's growth and development -	85	62	46	5.92	6.00	1.19	4	13
	Non-certified para-professionals need to also know about:								
C52	The importance of early stimulation and responsive caregiver / child interactions -	100	92	85	6.77	7.00	0.60	5	13
C51	WASH (Water, Sanitation & Hygiene) guidelines -	100	85	69	6.54	7.00	0.78	5	13
C53	How to support and guide mothers and primary caregivers in providing early stimulation and warm, responsive care giving -	100	92	58	6.50	7.00	0.67	5	12

C60	How children learn / child-centred learning approaches -	100	69	69	6.38	7.00	0.96	5	13
C61	Parenting and early stimulation for supporting early learning and development -	92	69	69	6.31	7.00	1.11	4	13
C57	Provision of first aid -	100	54	46	6.00	6.00	1.00	5	13
C63	How to appropriately support children and families from diverse backgrounds -	100	69	31	6.00	6.00	0.82	5	13
C62	Principles of inclusive practice -	100	62	31	5.92	6.00	0.86	5	13
C56	Understanding of local networks and resources available to parents and families	77	62	54	5.85	7.00	1.46	3	13
C58	How to observe children, to support parents in recognising developmental changes in their children -	77	62	38	5.69	6.00	1.38	3	13
C59	How to identify and support pre-literacy and pre-numeracy skills -	85	54	31	5.69	6.00	1.11	4	13
C55	How to establish effective working relationships -	85	62	15	5.62	6.00	0.96	4	13
C64	Local networks and resources that support children and families -	85	62	38	5.85	6.00	1.14	4	13
C54	Basic running / administration of programmes -	54	46	23	5.08	5.00	1.50	3	13
	D. Training (systems) - All cadres								
D10	There should be opportunities for both pre-service and in-service training for all ECD cadres -	100	100	86	6.86	7.00	0.36	6	14
D11	There should be clear professional / training pathways for all ECD cadres -	100	100	79	6.79	7.00	0.43	6	14
D8	Training for all cadres should incorporate a strong field-based component, where trainees / candidates spend part of their time receiving instruction in formal settings, followed by implementation of what they have learned in their respective professional	100	86	64	6.50	7.00	0.76	5	14
D12	*There should be opportunities for different levels of training (i.e.. initial; intermediate; advanced) for various ECD cadres working within provision of early childhood services -* *(Revised to: Training opportunities should include bridging programmes for ECD cadres who may not have formal education backgrounds)*	85	77	69	5.85	7.00	2.23	1	14
D2	*Training should be aligned with recognised professional standards, if available -* *(Revised to: training should be aligned with recognised professional standards, which account for diversity across contexts)*	71	64	29	5.50	6.00	1.51	2	14

D5	*A generalised 'ECD' course should be offered to all cadres working in ECD (including, for example, monitoring; social welfare; child protection), with additional specialisations offered to cadres from different professions / backgrounds, where applicable* *(Revised to: Training for different ECD cadres should be differentiated, but training for each cadre should raise awareness about commonalities and benefits of working across sectors)*	79	57	43	5.50	6.00	1.95	0	14
D6	*It would be valuable to have COMBINED training sessions, where those involved in ECD from different professions / backgrounds come together -* *(Revised to: On-going CPD should provide support and guidance on working across sectors (for example, opportunities to interact with ECD cadres working in other sectors))*	71	57	29	5.00	6.00	2.18	1	14
D7	Training should provide some clear differentiation between cadres from different professions / backgrounds, because the needs are different -	79	50	29	5.21	5.50	1.93	0	14
D9	Training should be delivered by people who are experienced in providing adult education -	79	50	21	5.00	5.50	2.00	1	14
D4	Training should be administered by a recognised institution (such as NGO; training institute) -	57	43	29	4.64	5.00	2.21	1	14
D1	Training should be operated through universities, colleges or other accredited institutions (both pre- and in-service) -	64	43	21	4.57	5.00	2.38	0	14
	Added to Round Three to replace all 3 items above: Training should fit within a clear framework that involves a mix of providers suited to the context (including NGO's, higher and further education institutes, other training providers)								
D3	Training should be centralised and administered by government -	29	21	14	2.64	2.00	2.50	0	14
	Mentoring & Supervision - All cadres								
D21	Observations of practice as part of supervision should be followed up by dialogue and reflection sessions -	100	85	77	6.62	7.00	0.77	5	13
D14	Training should be followed by on-site, on-going mentoring and supervision -	93	93	71	6.57	7.00	0.85	4	14
D18	Supervision and monitoring should be delivered in a non-threatening manner -	100	86	64	6.50	7.00	0.76	5	14
D13	Training on its own is far less effective than training that is supported by follow-up supportive supervision -	93	93	79	6.43	7.00	1.60	1	14
D15	Supervisors should be experienced -	93	93	71	6.43	7.00	1.34	2	14

D17	Effective supervisor training is critical for programme success -	100	79	64	6.43	7.00	0.85	5	14
D22	Systems of supervision and monitoring should provide opportunities for regular sharing sessions with peers -	93	71	57	6.21	7.00	1.05	4	14
D19	Supervision and monitoring should include emphasis on self-monitoring (for example, via self-monitoring checklists and forms) -	93	71	50	6.07	6.50	1.21	3	14
D20	Observations of practice as part of supervision should be conducted using well-designed checklists -	86	71	43	5.79	6.00	1.67	1	14
D16	Supervisors should be inspirational -	86	71	29	5.64	6.00	1.60	1	14
	Teaching methods - all cadres								
D26	Participatory/ interactive sessions -	100	93	71	6.64	7.00	0.63	5	14
D29	Planned refreshers and continuing professional development sessions -	100	93	64	6.57	7.00	0.65	5	14
D31	Combination of instruction and active learning strategies, such as role-play -	100	86	64	6.50	7.00	0.76	5	14
D25	Reflection on practice -	100	79	57	6.36	7.00	0.84	5	14
D28	Supportive supervision and mentorship by skilled personnel -	93	86	64	6.21	7.00	1.63	1	14
D24	Peer to peer learning in groups -	93	79	50	6.21	6.50	0.97	4	14
D30	Analysing examples of effective practice -	93	86	43	6.21	6.00	0.89	4	14
D32	Interactive sessions (Q & A) -	93	79	43	6.14	6.00	0.95	4	14
D23	Learning from examples of good practice /case studies -	86	71	43	6.00	6.00	1.11	4	14
D27	Combination of online and face to face delivery (where possible) -	71	57	36	5.07	6.00	2.23	1	14
	Certified education professionals also:								
D35	Cadres develop and use practical resources during training -	92	77	46	6.15	6.00	0.99	4	13
D33	Focus on delivery of a specific curriculum / package, to ensure in-depth knowledge of each aspect and accompanying materials -	85	54	38	5.54	6.00	1.61	2	13
D34	Cadres carry out their own local/ classroom / practice-based research into practice as part of the training process (cycle of input/ application in practice/ supervision and follow up sessions) -	75	67	25	5.33	6.00	1.83	1	12
	Non-certified para professionals also:								
D39	Cadres have opportunity to observe experienced peers 'in action' in home or early childhood settings -	100	77	54	6.31	7.00	0.85	5	13
D36	Focus on delivery of a specific curriculum / package, to ensure in-depth	92	75	58	6.17	7.00	1.27	3	12

	knowledge of each aspect and accompanying materials -								
D38	Cadres develop and use practical resources during training -	92	67	58	6.17	7.00	1.11	4	12
D37	Cadres carry out their own local/ classroom / practice-based research into practice as part of the training process (cycle of input/ application in practice/ supervision and follow up sessions) -	58	33	25	4.83	5.00	1.80	1	12
	Teaching materials - all cadres								
D5	Video of good (or bad) practices, such as effective (and not effective) pedagogica interactions -	92	85	62	6.38	7.00	0.96	4	13
D6	Materials that are locally developed and accredited -	93	71	57	6.21	7.00	1.05	4	13
D1	*Case studies of effective practice -* *(Revised to: Case studies of effective practice from a diverse range of contexts)*	*86*	*57*	*36*	*5.79*	*6.00*	*1.12*	*4*	*14*
D2	Written modules of study, including theory, practice, learning materials, and assessment tools -	71	57	29	5.50	6.00	1.34	3	13
D8	Individual ECD information booklets as reference for each cadre during and after training -	64	57	43	5.29	6.00	1.94	2	14
D4	Exposure to a variety of materials but with a view to fit with national policies, curriculum guidelines -	79	50	36	5.43	5.50	1.60	2	14
D7	A wide variety of materials that combine theory and practice with access to research findings -	86	50	43	5.36	5.50	2.10	0	14
D10	Job aides (tip sheets etc.) -	71	50	36	5.00	5.50	2.15	1	14
D3	Culturally sensitive text books -	69	46	46	5.00	5.00	2.42	0	13
D9	Visuals (posters) -	64	43	29	5.00	5.00	1.80	2	14
	Added to Round Three to replace all 6 items above: Use of a range of materials to promote engagement and familiarity with both local programmes and similar programmes operating in other parts of the world								
	Certified education professionals also:								
D11	Teacher made resources as examples for cadres to make their own -	93	79	50	6.21	6.50	0.97	4	14
D13	*Established ECE curriculum tailored to level of practitioners -* *(Revised to: Established ECE curriculum tailored to level of practitioners and including information on strategies to adapt to diverse contexts)*	*79*	*64*	*43*	*5.57*	*6.00*	*1.83*	*1*	*14*
D12	Puppets -	50	36	7	4.29	4.50	1.94	0	14

	Non-certified para-professionals also:								
D14	Programmes / manuals / ECE curriculum (training should closely follow guides and /or curriculum that cadres will be implementing, to ensure that they are equipped to deliver by completion of training) -	92	85	62	6.31	7.00	1.18	3	13
	E. Assessing impact of ECD training								
	Assess short-term								
E8	Documented changes in creating child-centred, age-appropriate learning environments -	100	79	43	6.21	6	0.80	5	13
E2	Evaluation of how knowledge is implemented after training, via observations of practice -	86	79	57	6.14	7	1.29	3	13
E1	Baseline assessment of trainees, followed by assessment post-training, to measure changes related to knowledge about theory and practice	86	64	50	5.79	7	1.63	2	13
E3	Validated observational measures of process quality in ECE settings following training (e.g. ECERS or adapted versions of such tools) -	86	57	43	5.64	6	1.60	2	13
E4	Validated observational measures of community health worker parent interactions following training (e.g. HOVRS or adapted versions of such tools) -	69	62	46	5.54	6	1.85	1	13
E6	Documented changes in relationships with community and families -	79	57	43	5.50	6	1.83	1	13
E9	Documented goal setting for 6-months, 12-months, 24-months, 5-years based or programme specifics (e.g. at minimum in the first 6-months is content being delivered and are early learning opportunities improving, are children/families participating?) -	71	57	29	5.21	6	1.89	1	13
E5	*Tools developed to support self-evaluation by ECD cadres -* *(Revised to: Evaluation of how knowledge is implemented by ECD cadres after training, collected via self-report)*	79	50	29	5.36	6	1.55	2	13
E10	Use of follow up questionnaires asking cadres about self-reported changes in practice -	71	50	29	5.21	6	1.67	2	13
E7	Documented changes in levels of teamwork among respective cadres -	71	43	21	5.14	5	1.51	2	13
E11	Use of follow up questionnaires for parents and wider community about perceived changes in the setting or activities -	64	43	21	5.00	5	1.62	2	13
E12	Child-centred impact assessment - Use of follow up questionnaires for children about perceived changes in the setting or activities -	43	36	21	4.29	4	2.13	1	13
	Assess long-term								13

E13	Pupil tracking (adjustments to drop out rates or attendance at primary school over the long-term) -	79	57	43	5.50	6	1.74	2	13
E15	Non-high-stakes monitoring of curriculum-based child outcomes -	62	62	46	5.38	6	1.89	2	13
E14	Pupil progress tracking by teachers at the beginning, middle and end of a school year -	69	54	31	5.31	6	1.65	2	13
E16	Assessment of knowledge and practice of cadres a year or 2 after training -	71	71	43	5.29	6	2.37	0	13
E17	Documentation of ECD cadres roles in supporting sustainability of ECD programmes -	62	54	15	4.62	6	2.26	0	13
E19	Documentation of ECD cadres retention rates -	79	43	29	5.21	5	1.63	2	13
E21	Documentation of 'growth' of ECD programmes (i.e.. ECD cadres roles in building and improving provision of ECD) -	69	46	23	5.15	5	1.57	2	13
E20	Evaluation using child development assessment tools to measure impact on holistic development - implemented annually -	64	43	29	5.07	5	1.73	2	13
E18	Controlled trials that vary key aspects of training - intensity, duration, frequency, trainer characteristics (any controlled trials should take account of the likely impact of various influences, such as poor school conditions) -	57	36	21	4.57	5	1.99	1	13
	Added to Round Three to replace items above and in response to feedback: Long-term assessment of impact should be conducted using a combination of tools and measures (including site-based observations of practice; reflection and self-assessment; population-level assessment of child outcomes using contextually appropriate child development measures)								
	Added to Round Three to replace items above and in response to feedback: Long-term assessment of impact should measure impact on children, caregivers and wider communities								
	Added to Round Three to replace items above and in response to feedback: Assessment of impact of ECD training should avoid using high-stakes measures								
	F. Scale-up of ECD training								
F1	Availability of trained personnel to support ECD training initiatives -	100	86	64	6.50	7.00	0.76	5	14
F2	Stable workforce to support scale-up at all levels -	100	79	57	6.36	7.00	0.84	5	14
F5	Centralised plans for on-going supervision and mentoring -	100	92	67	6.25	7.00	1.14	4	12
F14	Attention to how to scale to remote areas -	100	85	62	5.14	5.00	1.75	1	13

F6	Financing plan / budget -	100	71	71	6.43	7.00	0.94	5	14
F11	Established, recognised professional standards and clear career pathways that offer progression from basic training through to post-graduate level -	93	86	50	6.29	6.50	0.91	4	14
F10	Alliance of formal and non-formal sectors to ensure reach/coverage of training t all ECD cadres -	100	79	43	6.21	6.00	0.80	5	14
F4	Commitment to intervention and accountability across all levels of administration -	100	64	43	6.07	6.00	0.92	5	14
F3	Accredited training unit or institute at national/regional level to set policy and procedure -	93	71	36	6.00	6.00	0.96	4	14
F15	Use and recognition of flexible, portable training tools, such as online learning modules -	86	50	29	6.46	7.00	0.78	5	14
F17	Active ECCD management committee at community level -	79	43	29	6.29	7.00	1.44	2	14
F7	Reflection on gaps in practice (based on assessment of existing needs and capabilities) -	86	71	64	6.21	7.00	1.19	4	14
F12	System of salary increments / incentives related to progression through these scales -	86	71	57	6.14	7.00	1.17	4	14
F24	Strategic location of training centres for accessibility and ownership among local communities -	71	43	29	6.07	6.50	1.14	4	14
F21	Allocation of space for training -	86	50	36	5.93	6.00	1.07	4	14
F8	Holistic ECD policy, inter-ministerial coordination mechanism and action plan -	79	57	43	5.64	6.00	1.55	2	14
F23	Competent local trainers available at community level, who understand local culture, language and needs -	79	64	36	5.64	6.00	1.50	2	14
F20	Commitment from various stakeholders (local leaders / elders; faith-based institutes; government departments) at local level -	86	71	36	5.08	6.00	2.11	1	14
F16	Advocacy for ECD cadres with low status, to improve working status and remuneration -	93	79	71	5.64	5.50	1.08	4	14
F22	Cooperation across local NGO's; government departments; schools at local and district levels -	79	64	36	5.64	5.50	1.28	3	14
F13	Standardised and piloted training materials / modules -	71	50	29	5.29	5.50	1.68	1	14
F9	Establishment of strong, knowledgeable, dedicated, mobile teams at central government level who work across sectors and levels of administration (central; district, local) to ensure consistency and continuity -	71	50	14	5.07	5.50	1.64	1	14

F18	Use of model centres / programmes to promote ECD across communities -	64	36	21	5.29	5.00	1.64	1	14
F19	Facilitation of self scale-up at district and community level, through linkage across communities, schools and programmes -	75	58	25	4.36	5.00	2.47	0	14

Appendix F – Analysis of Round Two responses and Round Three survey

Analysis of Round Two responses

Consensus levels on importance of items included in Round Two are presented in Appendix E. In reviewing responses to prepare for the final, Round Three survey, where feedback from Expert Panel members indicated a lack of clarity, or concern about items, minor edits were made to enhance clarity. This method of making minor revisions to items in response to Expert feedback, is reported by van Vliet and colleagues (2016) in a Delphi study that focused on the need to ensure feasibility of items that are identified in the final round as having reached consensus. Similarly, in the case of this Delphi study, given (i) the range of complex issues covered, and (ii) the relative novelty in focus on 'training of ECD cadres', we felt it appropriate to ensure that items reflected Expert feedback and concerns as closely as possible. Items that were revised in the case of this study are highlighted in italics in the table below, which presents items from Round Three. Examples include:

- *A8 Open to innovation*
  (Revised to: Open to possibilities for changing / enhancing practice to better suit the needs of children and families)
- *D2 Training should be aligned with recognised professional standards, if available -*
  (Revised to: training should be aligned with recognised professional standards, which account for diversity across contexts)
- *D1 Case studies of effective practice -*
  (Revised to: Case studies of effective practice from a diverse range of contexts)
- *D13 Established ECE curriculum tailored to level of practitioners -*
  (Revised to: Established ECE curriculum tailored to level of practitioners and including information on strategies to adapt to diverse contexts)

A draft version of the Round Three survey and guidelines was circulated to members of the research team. Revisions included notes in the guidance sent to members of the Expert Team to enhance clarity on the purpose of the final round (e.g. an emphasis on aiming to confirm items that could be considered as having reached 'strong consensus' or 'consensus' in terms of being essential or important for inclusion / consideration with regard to ECD cadres training). In response to feedback from members of the research team, a decision was made to include a small number of items that had not reached consensus in Round Two, in order to be able to confirm low consensus (interpreted as consensus that an item was *not important*), with the justification that identifying some factors that are considered to be unimportant is also useful in terms of highlighting elements of ECD training considered to be essential.

Round Three Survey

Dear,

Greetings and thank you, once again, for your continued participation in the UK Government DFID-funded Delphi study on 'Reaching expert consensus on training different cadres in delivering early childhood development at scale'.

We are deeply gratified by the time that you have committed so far, and the depth of feedback that we have received. We are confident that the key aspects of ECD training you have identified will be of crucial significance for individuals and groups working in the field of ECD.

We are now inviting you to complete the Third and final Round of this Delphi study. The purpose of this Round is to confirm levels of consensus on all items presented by (i) providing you with the data on *overall consensus levels among Panel members* reached on items presented in Round Two, and (ii) inviting you to *reconsider your ratings from Round Two, in the light of these results, either confirming the rating you initially made (please see in Column D on the excel spreadsheet) or revising it.*

To facilitate this process, we have attached two documents to this message:

1. Round Three_survey.xls (excel spreadsheet), presenting a list of items that have been identified, based on analysis of results from Round Two, as Essential (strong consensus), Important (consensus) or Somewhat important (low consensus) for ECD training. This document also provides you with an aggregated overview of results, as well as your own responses from Round Two (in Column D on the excel spreadsheet), so that you can review your Round Two responses in the light of this data.

2. Round 2 summary data.pdf, which provides an overview of Round Two survey data that includes open-ended responses.

Please note that, in response to open-ended feedback and in line with our analyses, some items have been deleted from Round Two. Six items have been added and others have been revised, specifically where open-ended responses suggested a lack of clarity in the original items. In particular, for the section on 'Assessing impact' of ECD training, revised items are now phrased as over-arching items that refer to principles of impact assessment, rather than to specific tools.

In order to facilitate ease of data entry (which for this Round involves cross-referencing sources), we would like to offer you the option of either:

A. Entering your *responses to Round Three directly into the excel spreadsheet* in Column F (titled Round Three Data Entry).

OR

B. If you are more comfortable completing an online survey, please follow the link provided below. Please refer to attachment 1 (excel spreadsheet) for information on responses from Round Two.

https://www.surveymonkey.co.uk/r/CLM6RWW

If you opt to enter your final responses into the excel spreadsheet, please email your completed spreadsheet to Clare Hemming(clare.hemming@bishopg.ac.uk). If you have any questions about completing the survey, please do not hesitate to contact Clare or Emma (emma.pearson@bishopg.ac.uk).

As this study is working to extremely tight deadlines, we would be most grateful if you could please complete and return the survey to us by **Wednesday 24th May**. Once again, the research team is indebted to you for agreeing to contribute your invaluable time and expertise to this important study. We look forward to sharing the final set of findings with you.

Round Three survey – items and results

Levels of consensus on importance of items included in the Round Three survey are presented below, as per methods outlined in Appendix E. A small number of items failed to reach consensus due to a wide range in ratings of importance within the Expert Panel, and were categorised as '*non-consensus'*, i.e. an item that included at least 2 scores of 3 or lower. All but five items received at least one response rating of 7 (essential) and all items received at least a rating of 6. As such the items reaching *consensus of disagreement* or *non-consensus* received a wider range of ratings than the three consensus categories.

In this final Round, consensus was also measured by the extent of change in responses between Round Two and Three. In order to ascertain whether any of these differences were statistically significant, i.e. response patterns changed substantially by Round Three, a series of t tests were conducted on items presented at both rounds (results presented below in the column 'Average change'). Results were non-significant for all items. As such responses were deemed to be stable across both Rounds of analysis.

A. Dispositions

		% top 3 ratings (5, 6 or 7)	% top 2 ratings (6, 7)	% top Essential rating (7)	Mean	Median	(SD)	Average change	Min Rating	# Responses
strong consensus	Treats children with respect	100	100	91	6.91	7.0	0.30	0.02	6	11
strong consensus	Shows empathy and understanding of children and families	100	100	82	6.82	7.0	0.40	0.03	6	11
strong consensus	Caring	100	100	73	6.73	7.0	0.47	0.06	6	11
strong consensus	Open to feedback and others' ideas	100	100	45	6.45	6.0	0.52	0.21	6	11
strong consensus	Respectful of diverse groups	100	91	45	6.36	6.0	0.67	0.01	5	11
strong consensus	Elicits trust and respect from community	100	82	45	6.27	6.0	0.79	0.05	5	11
consensus	Patient	100	73	27	6.00	6.0	0.77	0.36	5	11
consensus	Knowledgeable and sensitive to local context	100	64	27	5.91	6.0	0.83	0.38	5	11
consensus	Sensitive to needs of target group	91	64	55	5.82	7.0	1.83	0.32	1	11
consensus	Curious and eager to learn / motivated	91	64	36	5.73	6.0	1.49	0.34	2	11
Consensus - revised	Open to possibilities for changing / enhancing practice to better suit the needs of children and families	90	70	20	5.60	6.0	1.43	0.26	2	10

B. Essential Skills

		% top 3 ratings (5, 6 or 7)	% top 2 ratings (6, 7)	% top Essential rating (7)	Mean	Median	(SD)	Average change	Min Rating	# Responses
	All ECD cadres need to be able to:									
strong consensus	Interact responsively with children	100	100	75	6.75	7.0	0.45	0.04	6	12
strong consensus	Apply good listening, observation and communication skills	100	83	58	6.42	7.0	0.79	0.08	5	12
strong consensus	Interact responsively with parents	100	92	50	6.42	6.5	0.67	0.12	5	12
strong consensus	Actively problem-solve and look for solutions to challenges	100	92	50	6.42	6.5	0.67	0.03	5	12
consensus	Work with and involve parents	92	83	58	6.08	7.0	1.73	0.49	1	12
consensus	Reflect on practice and self-evaluate	100	75	25	6.00	6.0	0.74	0.43	5	12
consensus	Work effectively with peers and others	92	75	17	5.83	6.0	0.83	0.45	4	12
	Be accountable - implement and monitor ECD programmes in line with guidance and instructions	83	50	25	5.58	5.5	1.08	0.35	5	12
	Collaborate and cooperate with other related sectors / agencies	83	25	8	5.08	5.0	1.00	0.49	3	12
	Certified education professionals need to be able to <u>also</u>:									
consensus	Modify practice for individual children's needs	92	83	42	6.08	6.0	1.16	0.35	3	12
consensus	Apply creativity in developing learning plans and resources	92	83	42	6.00	6.0	1.41	0.36	2	12
consensus	Demonstrate strong language skills	75	67	33	5.75	6.0	1.22	0.39	4	12
consensus	Facilitate effectively - articulate complex ideas in simple ways	75	50	17	5.42	5.5	1.08	0.66	1	12
consensus	Connect with parents, families and communities	67	58	25	5.17	6.0	1.85	1.05	1	12
consensus	Work with local community members and value their views	67	42	8	4.92	5.0	1.56	0.94	0	12
low consensus - revised	Work effectively in multi-lingual environments (where applicable)	64	27	9	4.64	5.0	1.63	0.72	1	11
	Identify long-term goals for ECD programmes	55	27	9	4.45	5.0	1.86	1.19	0	11
	Certified health professionals need to be able to <u>also</u>:									
strong consensus	Coach effectively - instruct and mentor others	91	91	45	6.18	6.0	1.17	0.28	3	11
consensus	Track / monitor children's development, as well as physical needs	100	73	45	6.18	6.0	0.87	0.15	5	11
consensus	Facilitate effectively - articulate complex ideas in simple ways	91	82	45	6.09	6.0	1.22	0.45	3	11
consensus	Connect with parents, families and communities	100	73	36	6.09	6.0	0.83	0.29	5	11
consensus	Use dialogue to communicate, rather than just instruction	100	73	27	6.00	6.0	0.77	0.15	5	11

consensus	Sensitively and effectively influence and challenge perceptions or customs that are counter to child rights	100	55	27	5.82	6.0	0.87	0.34	5	11
consensus	Work with local community members and value their views	91	36	9	5.09	5.0	1.51	0.83	1	11
	Non-certified para-professionals need to be able to <u>also</u>:									
consensus	Make use of available resources to model/set up language-rich, stimulating environments for young children	91	82	36	6.00	6.0	1.18	0.38	3	11
consensus	Connect with parents, families and communities	100	64	27	5.91	6.0	0.83	0.32	5	11
consensus	Modify practice for individual children's needs	82	64	27	5.64	6.0	1.29	0.44	3	11

C. Essential Knowledge

		% top 3 ratings (5, 6 or 7)	% top 2 ratings (6, 7)	% top Essential rating (7)	Mean	Median	(SD)	Average change	Min Rating	# Responses
	All ECD cadres need to know about:									
strong consensus	The importance of quality interactions for infant and child development	100	100	58	6.58	7.0	0.51	0.06	6	12
strong consensus	Principles of holistic child development (multiple domains)	100	92	58	6.50	7.0	0.67	0.14	5	12
consensus	Child development milestones (applied appropriately across diverse cultural contexts)	92	67	25	5.83	6.0	0.94	0.38	4	12
consensus	Home and family context impacts on learning and development	100	50	33	5.83	5.5	0.94	0.52	5	12
consensus	How to respond sensitively to parents and establish positive, trusting relationships	92	67	42	5.75	6.0	1.71	0.68	1	12
consensus	How to identify possible signs of developmental delay and refer children to appropriate professionals/support	100	58	17	5.75	6.0	0.75	0.25	5	12
New item (to reflect open-ended comments) - consensus	*How to locate and work with other sectors in the community (health; education; welfare and others as appropriate to context / cadre)*	92	50	17	5.33	5.5	1.56	#DIV	1	12
consensus	Child rights in the early years	67	33	17	4.83	5.0	1.64	1.10	2	12
consensus	How to monitor children's progress	92	58	8	5.25	6.0	1.76	0.89	0	12
Revised (moved from certified health professional to apply to all	The impact of toxic stress on early development and how provision of ECD can help to counter its effects	83	42	8	5.00	5.0	1.76	#DIV	0	12

cadres)

low consensus - revised	Early brain development and links to the importance of early stimulation	67	58	8	4.92	6.0	1.93	0.51	0	12
	Certified education professionals need to also know about:									
strong consensus	Play-based learning approaches and their importance for children's holistic development	100	92	58	6.50	7.0	0.67	0.29	5	12
consensus	How to plan learning experiences/adapt curriculum to fit individual children's needs	92	83	58	6.33	7.0	0.98	0.17	4	12
consensus	How children learn / child-centred learning approaches	92	83	50	6.25	6.5	0.97	0.18	4	12
consensus	Classroom management strategies for large and small groups of children	92	83	42	6.17	6.0	0.94	0.19	4	12
consensus	How to balance / combine play and directed learning	92	75	42	6.00	6.0	1.21	0.29	3	12
consensus	Early childhood competencies and learning activities/experiences that support these	83	75	42	6.00	6.0	1.13	0.50	4	12
consensus	How to provide a range of learning experiences including varied themes and areas of learning	92	67	33	5.92	6.0	1.00	0.44	4	12
consensus	How to identify and support emergent literacy and numeracy skills	92	67	33	5.92	6.0	1.00	0.39	4	12
consensus	How to develop new activities and materials	92	67	33	5.83	6.0	1.19	0.38	3	12
consensus	How to adapt curricula to suit local contexts	83	50	33	5.25	5.5	2.05	0.83	3	12
consensus	How to appropriately support children and families from diverse backgrounds	75	42	17	5.17	5.0	1.40	0.91	2	12
low consensus - revised	How to develop lesson plans in line with the curriculum	83	42	33	5.33	5.0	1.61	0.60	2	12
New item (to reflect open-ended comments) - low consensus	*How to work with communities to establish and manage an ECD programme*	73	36	9	4.73	5.0	1.79	#DIV	1	11
	Certified health professionals need to also know about:									
strong consensus	Maternal and child nutrition (breastfeeding support; infant feeding support)	100	100	70	6.70	7.0	0.48	0.01	6	10
strong consensus	Early childhood health and nutrition	90	90	80	6.50	7.0	1.27	0.42	3	10
strong consensus	Identification of high risk pregnancy and referral actions	100	80	70	6.50	7.0	0.85	0.04	5	10
strong consensus	Preventive, promotive health practices and care for young	90	90	70	6.40	7.0	1.26	0.52	3	10

	children and families									
strong consensus	Parenting and early stimulation for supporting early learning and development	100	90	50	6.40	6.5	0.70	0.06	5	10
strong consensus	Signs of maternal depression and appropriate support, including referrals	100	80	30	6.10	6.0	0.74	0.21	5	10
strong consensus	Identifying developmental delay in infants and young children, and providing appropriate referral advice	100	80	20	6.00	6.0	0.67	0.38	5	10
consensus	Maternal and new-born health needs	90	80	80	6.50	7.0	1.08	0.27	4	10
consensus	The long-term impact of development during the early years of life	90	90	50	6.30	6.5	0.95	0.24	4	10
consensus	The significance of the first 1000 days for later development (including evidence on early brain development)	90	80	40	6.10	6.0	0.99	0.21	4	10
consensus	How children learn / child-centred learning approaches	100	50	10	5.60	5.5	0.70	0.40	5	10
consensus	How to support and promote care during pregnancy in home-based settings	90	60	10	5.30	6.0	1.64	0.95	1	10
consensus	Principles of inclusive practice	80	50	0	5.00	5.5	1.56	1.00	1	10
consensus	How to appropriately support children and families from diverse backgrounds	80	20	0	4.80	5.0	1.14	1.12	2	10
consensus	How to provide neonatal care in home-based settings	80	40	10	4.70	5.0	2.06	1.15	1	10
consensus	How to provide neonatal care in facility-based settings	70	40	10	4.50	5.0	2.12	1.35	1	10
	Non-certified para-professionals need to also know about:									
strong consensus	How to support and guide mothers and primary caregivers in providing early stimulation and warm, responsive care giving	100	100	64	6.64	7.0	0.50	0.14	6	11
strong consensus	The importance of early stimulation and responsive caregiver / child interactions	91	91	73	6.55	7.0	0.93	0.22	4	11
consensus	Parenting and early stimulation for supporting early learning and development	100	73	45	6.18	6.0	0.87	0.13	5	11
consensus	How children learn / child-centred learning approaches	91	73	36	5.82	6.0	1.47	0.57	2	11
consensus	Provision of first aid	91	64	18	5.64	6.0	1.12	0.36	3	11
consensus	WASH (Water, Sanitation & Health) guidelines	91	64	27	5.45	6.0	1.97	1.08	0	11
consensus	How to appropriately support children and families from diverse backgrounds	82	55	9	5.18	6.0	1.47	0.82	2	11
consensus	Principles of inclusive practice	82	45	9	5.00	5.0	1.67	0.92	1	11

D. Training

		% top 3 ratings (5, 6 or 7)	% top 2 ratings (6, 7)	% top Essential rating (7)	Mean	Median	(SD)	Average change	Min Rating	# Responses
	Training systems (<u>all ECD cadres</u>):									
strong consensus	There should be opportunities for both pre-service and in service training for all ECD cadres	100	100	92	6.92	7.0	0.29	0.06	6	12
strong consensus	There should be clear professional / training pathways for all ECD cadres	100	92	75	6.67	7.0	0.65	0.12	5	12
strong consensus	Training for all cadres should incorporate a strong field-based component, where trainees / candidates spend part of their time receiving instruction in formal settings, followed by implementation of what they have learned in their respective professional settings	100	100	64	6.64	7.0	0.50	0.14	6	11
low consensus - revised	Training opportunities should include bridging programmes for ECD cadres who may not have formal education backgrounds	83	58	8	5.33	6.0	1.30	#DIV /0!	2	12
low consensus - revised	Training should be aligned with recognised professional standards, which account for diversity across contexts	82	55	9	5.18	6.0	1.60	0.32	1	11
low consensus - revised	Training for different ECD cadres should be differentiated, but training for each cadre should raise awareness about commonalities and benefits of working across sectors	82	45	18	5.18	5.0	1.66	#DIV /0!	1	11
New item (to reflect open-ended comments) - low consensus	*On-going CPD should provide support and guidance on working across sectors (for example, opportunities to interact with ECD cadres working in other sectors)*	82	36	0	4.91	5.0	1.45	#DIV /0!	1	11
low consensus - revised	Training programmes should fit within a clear training framework that involves a mix of providers suited to the context (including NGO's, higher and further education insitutes, other training providers)	73	36	0	4.82	5.0	1.47	#DIV /0!	1	11
consensus that item not agreed with	Training should be centralised and administered by government	25	0	0	2.83	3.0	1.75	0.05	1	12

	Follow-up mentoring & supervision (<u>all ECD cadres</u>):									
strong consensus	Supervision and monitoring should be delivered in a non-threatening manner	100	100	58	6.58	7.0	0.51	-0.08	6	12
strong consensus	Observations of practice as part of supervision should be followed up by dialogue and reflection sessions	100	92	58	6.50	7.0	0.67	0.12	5	12
strong consensus	Training should be followed by on-site, on-going mentoring and supervision	100	92	50	6.42	6.5	0.67	0.15	5	12
strong consensus	Effective supervisor training is critical for programme success	100	100	42	6.42	6.0	0.51	0.01	6	12
strong consensus	Supervisors should be experienced	92	92	58	6.33	7.0	1.15	0.10	3	12
strong consensus	Training on its own is far less effective than training that is supported by follow-up supportive supervision	92	92	58	6.17	7.0	1.70	0.26	1	12
consensus	Systems of supervision and monitoring should provide opportunities for regular sharing sessions with peers	92	83	17	5.92	6.0	0.79	0.30	5	12
consensus	Supervision and monitoring should promote self-monitoring and reflection (for example, via self-monitoring guidelines)	92	67	25	5.75	6.0	1.14	0.32	3	12
	Teaching <u>methods</u> - possible teaching methods for use in delivery of ECD training (<u>all ECD Cadres</u>):									
strong consensus	Planned refreshers and continuing professional development sessions	100	83	42	6.25	6.0	0.75	0.32	5	12
strong consensus	Reflection on practice	83	67	25	5.75	6.0	1.06	0.61	4	12
consensus	Participatory/ interactive sessions	92	92	58	6.42	7.0	0.90	0.23	4	12
consensus	Combination of instruction and active learning strategies, such as role-play	92	83	50	6.25	6.5	0.97	0.25	4	12
consensus	Supportive supervision and mentorship by skilled personnel	92	75	42	5.83	6.0	1.70	0.38	1	12
consensus	Interactive sessions (Q & A)	83	67	25	5.75	6.0	1.06	0.39	4	12
consensus	Peer to peer learning in groups	83	67	8	5.58	6.0	0.90	0.63	4	12
consensus	Analysing examples of effective practice	75	58	8	5.42	6.0	1.00	0.80	4	12
	Teaching <u>methods</u> - possible teaching methods for use in delivery of ECD training (<u>certified education professionals</u>):									
consensus	Cadres develop and use practical resources during training	100	58	33	5.92	6.0	0.90	0.24	5	12
consensus that item not agreed with	Focus on delivery of a specific curriculum / package, as well as strategies for contextualising curriculum content	58	25	25	4.33	5.0	2.23	1.21	0	12

	Teaching methods - possible teaching methods for use in delivery of ECD training (non-certified para professionals):									
consensus	Cadres have opportunity to observe experienced peers 'in action' in home or early childhood settings	92	58	17	5.67	6.0	0.89	0.64	5	12
consensus	Cadres develop and use practical resources during training, in preparation for implementation in the field	67	50	8	5.25	5.5	1.06	0.92	4	12
consensus	Focus on delivery of a specific programme package, to ensure in-depth knowledge of each aspect and accompanying materials	73	64	27	5.18	6.0	2.14	0.98	0	11
	Teaching materials -possible teaching materials for use in delivery of ECD training (all cadres):									
consensus	Video resources (eg. examples of a range of practices across different contexts that can promote discussion of various pedagogical approaches and interaction styles)	83	67	25	5.75	6.0	1.06	0.63	4	12
consensus	A combination of relevant and appropriate materials, including locally developed and accredited resources	82	55	9	5.45	6.0	0.93	0.76	4	11
low consensus - revised	Use of a range of materials to promote engagement and familiarity with both local programmes and similar programmes operating in other parts of the world	83	50	8	5.42	5.5	0.90		4	12
low consensus - revised	Case studies of effective practice from a diverse range of contexts	75	50	8	5.33	5.5	0.98	0.45	4	12
consensus	Teacher made resources as examples for cadres to make their own	92	75	33	5.83	6.0	1.40	0.38	2	12
previously low consensus - revised - consensus now achieved	Established ECE curriculum tailored to level of practitioners and including information on strategies to adapt to diverse contexts	91	27	9	5.09	5.0	1.22	0.48	2	11
low consensus - revised	A wide variety of materials that combine theory and practice with access to research findings / grey literature on similar programmes	82	36	0	4.64	5.0	1.91	0.72	0	11
	Teaching materials -possible teaching materials for use in delivery of ECD training (non-certified para-professionals):									
consensus	Programmes / manuals / ECE curriculum (training should closely follow guides and /or curriculum that cadres will be implementing, to ensure that they are equipped to deliver by completion of training)	83	75	33	5.75	6.0	1.42	0.56		12

E. Assessing impact of ECD Training - short- and long-term impacts

		% top 3 ratings (5, 6 or 7)	% top 2 ratings (6, 7)	% top Essential rating (7)	Mean	Median	(SD)	Average change	Min Rating	# Responses
consensus	Documented changes in creating child-centred, age-appropriate learning environments	80	70	10	5.40	6.0	1.43	0.81	2	10
low consensus - revised	Evaluation of how knowledge is implemented by ECD cadres after training, via observations of practice	80	70	20	5.50	6.0	1.43	0.64	3	10
low consensus - revised	Validated observational measures of community health worker parent interactions following training (e.g. HOVRS, adapted to suit the context)	70	30	20	5.00	5.0	1.49	0.54	2	10
low consensus - revised	Validated observational measures of process quality in ECE settings following training (e.g. ECERS, adapted to suit the context)	73	27	18	4.82	5.0	1.66	0.82	2	11
low consensus - revised	Evaluation of how knowledge is implemented by ECD cadres after training, collected via self-report	73	9	0	4.45	5.0	1.21	0.90	2	11
low consensus	Controlled trials that vary key aspects of training - intensity, duration, frequency, trainer characteristics (any controlled trials should take account of the likely impact of various influences, such as poor school conditions) -	50	10	10	8.20	5.0	13.41	3.63	1	10
New item (to reflect open-ended comments) - strong consensus	*Assessment of impact of ECD training should avoid using high-stakes measures, such as one-off summative testing*	100	80	40	6.20	6.0	0.79		5	10
New item (to reflect open-ended comments)	*Long-term assessment of impact should be conducted using a combination of tools and measures (including site-based observations of practice; reflection and self-assessment; population-level assessment of child outcomes using contextually appropriate child development measures)*	78	56	11	5.11	6.0	1.62		2	9

New item (to reflect open-ended comments)	*Long-term assessment of impact should measure impact on children, caregivers and wider communities*	80	50	10	5.10	5.5	1.52		2	10
low consensus - revised	On-going assessment of knowledge and practice of cadres (linked to on-going CPD and training)	80	40	0	5.00	5.0	1.15	0.29	3	10
low consensus	Pupil tracking (adjustments to drop out rates or attendance at primary school over the long-term)	70	40	0	4.70	5.0	1.49	0.80	2	10
consensus that item not agreed with	Documentation of ECD cadres retention rates	50	20	0	4.40	4.5	1.17	0.81	3	10

F. Scale-up of ECD training - requirements / needs for scale-up of ECD training

		% top 3 ratings (5, 6 or 7)	% top 2 ratings (6, 7)	% top Essential rating (7)	Mean	Median	(SD)	Average change	Min Rating	# Responses
strong consensus	Financing plan / budget	100	92	42	6.33	6.0	0.65	0.05	5	12
strong consensus	Availability of a range of trained personnel to support ECD training initiatives	92	92	42	6.25	6.0	0.87	0.29	4	12
consensus	Stable workforce to support scale-up at all levels	92	83	50	6.25	6.5	0.97	0.13	1	12
consensus	Attention to how to scale to remote areas	92	75	42	6.08	6.0	1.00	0.42	5	12
consensus	Alliance of formal and non-formal sectors to ensure reach/coverage of training to all ECD cadres	92	75	25	5.92	6.0	0.90	0.31	4	12
consensus	Centralised plans for on-going supervision and mentoring	91	73	45	5.82	6.0	1.78	0.43	4	11
consensus	Established, recognised professional standards and clear career pathways that offer progression from basic training through to post-graduate level	83	83	25	5.75	6.0	1.36	0.48	3	12
consensus	Accredited training unit or institute at national/regional level to set policy and procedure	92	58	25	5.75	6.0	0.97	0.25	4	12
consensus	Commitment to intervention and accountability across all levels of administration	92	58	17	5.67	6.0	0.89	0.49	4	12