



"Promoting Quality Education for All"

THE LINK BETWEEN HEALTH, NUTRITION, CHILD DEVELOPMENT AND EDUCATION

ZANEC POLICY BRIEF ON ECCDE

INTRODUCTION

Zambia is about to adopt a new Early Childhood Education Policy in 2017. The present brief will examine on going policy implementation with reference to key areas defined in the new policy, specifically looking at main achievements to date, obstacles encountered, and lessons learned. While a number of activities have been delayed, considerable progress has been made, highlighting the inherent strengths of the Ministry of General Education (MoGE) in the Early Childhood Education sector or Directorate.

In Zambia, the framework for Early Childhood services in the Ministry of General Education has a strong bias to Education or Early Childhood Education (ECE) beginning at age 3 to 6 years. Whilst this stance taken sounds well for those in Education, the question we pose is who should decide when a framework operationalized operates within the public interest? How can decisions of this kind be made whilst avoiding the risk that politicians use such decisions and review as a lever to carry favour with the very public they are supposed to constrain, or that the framework itself shudders free speech?

BRIEF OVERVIEW OF ECCDE

There are different terminologies used by different institutions addressing Early Childhood. For instance, UNICEF, WHO and World Bank use Early Childhood Development (ECD) and the Consultative Group on Early Childhood Care and Development uses Early Childhood Care for Development (ECCD), as Zambia National Education Coalition (ZANEC) we use Early Childhood Care, Development and Education (ECCDE), Ministry of General Education (MoGE) and Ministry of Health in Zambia use Early Childhood Education (ECE) and Early Childhood Development (ECD) respectively. But all of them recognize the importance of these integrated and holistic interventions in the early age of a child.

While tossing the concept of Early Childhood Care and Education (ECCE) by UNESCO, it has been believed that combination of 'care' and 'education' is needed for good quality provisions for the children. As defined by UNESCO, 'Early Childhood Care and Education supports children's survival growth, development and learning – including health, nutrition and hygiene, and cognitive, social, physical and emotional development – from birth to entry into primary school in formal, informal and non-formal settings... ECCE represents a continuum of interconnected arrangements involving diverse actors: family, friends, neighbours; family day care for a group of children in a provider's home; centre-based programmes; classes/programmes in schools; and programmes for parents'.

As defined by Evans et.al. 2000: 2, *'Early Childhood Care for Development includes all the support necessary for every child to realize his/her right to survival, to protection, and to care that will ensure optimal development from birth to age eight'*.

HISTORICAL PERSPECTIVE OF ECCDE IN ZAMBIA

Historically, Early Childhood Care Development and Education (ECCDE) has not been a major responsibility of government in Zambia. This has been the case for both pre- and post-independence governments. In colonial times, Sub 0 education was offered for one year and included learning to write letters of the alphabet, on the ground, for African children. This was the closest the system then came to offering ECCDE. Later, the colonial government came up with Day Nursery Act of 1957 to benefit local children. After independence, the government established nurseries and pre-schools through the Ministry of Local Government and Housing. These were mainly located in welfare halls. The level of participation though remained low and by the middle 1980s this provision had fizzled off.

For a long time, the provision of ECCDE was not the responsibility of the Ministry of Education although the Education Reforms of 1977, Focus on Learning of 1992 and Educating our Future of 1996 policy documents all have recognised the critical role that ECCDE plays as a foundation for all later learning. Since the provision of ECCDE has never been fully supported by government, the operations of pre-schools are dependent on fees that the learners pay. Therefore, the majority of the children that access ECCDE are from higher income households. This has also influenced the distribution and location of ECCDE centres as most of them are located in urban areas.

The ECE Policy goal (2017-2030) to uphold the right to education for survival, healthy growth, education and holistic development of children aged fewer than 7 years including those with special educational needs. The ECE national policy is linked to other Child policies. MoGE recruited and deployed 1,000 ECE teachers (2013/2014). By March 2016 ECE Staff Audit reviewed 1,265 ECE trained teachers employed. The first ECE Teacher Education Diploma students will be graduating this year 2017. Government annexing ECE centres to existing Government Primary Schools (2013/2014- had 1,526 centres catering for 70, 000 children. By 2016 there are 2166 annexed ECE centres catering for 138, 000 learners.

WHAT NEEDS URGENT ATTENTION?

While much progress has been made due to the Government's pioneering initiatives in ECE since 2004, a number of areas still need improvement. The situational analysis carried out in 2016 by the Zambia National Education Coalition (ZANEC) revealed that while the MoGE is doing its best for the provision of quality learning to children three to six years, Iodine and iron deficiency in the first three years of life have dire consequences on psychomotor development and competence and confidence development. The earlier we as a nation avert the nutritional deficiency situation for children, with years fewer than five, then we will better the performance of children at later grade levels. Adequate nutrition is necessary for young children to achieve their potential level of cognitive functioning and overall well-being (Engle et al. 2007; Grantham-McGregor et al. 2007; Shonkoff and Phillips 2000). Undernutrition is most common and severe during periods of greatest vulnerability the first 2–3 years of life (Martorell 1997; UNICEF 1998). Undernourished children score lower than do better-nourished children on tests of cognitive functioning, have poorer psychomotor development and fine motor skills, have lower activity levels, interact with others less frequently, fail to acquire skills at normal rates, have lower enrollment rates, and complete fewer grades of schooling (Alderman et al. 2001b; Alderman, Hoddinott, and Kinsey 2006; Behrman 1996; Behrman, Cheng, and Todd 2004; Glewwe, Jacoby, and King 2000; Glewwe and King 2001; Grantham-McGregor et al. 1997; Grantham-McGregor et al. 1999a, 1999b; Johnston et al. 1987; Lasky et al. 1981). It is believed that these effects reflect, in part, biological pathways by which under nutrition affects neurological development.

Whilst all these nutritional facts are underlined; Zambia's malnutrition problem is significant, with 40% of children with fewer than five years of age are stunted (low height for age) and 15 % underweight (low weight-for-age)¹. The absolute number of children who are stunted has increased, from 685,000

¹ *Central Statistical Office (CSO) [Zambia]; Ministry of Health (MOH) [Zambia], and ICF International; 2014 Zambia Demographic and Health Survey 2013-14. Rockville, Maryland, USA: Central Statistical Office, Ministry of Health, and ICF International*

in 1992 to 1.14 million in 2013. Children from the poorest quintile are 1.7 times as likely to be stunted as children from the wealthiest quintile. Children in rural areas (42%) are more likely to be stunted than those in urban areas (36%). At the provincial level, Northern has the highest proportion of stunted children (49%), while Copperbelt, Lusaka, and Western have the lowest proportions (36% each).

In Zambia, around 60% (7.9 million) of the entire population lives in poverty and 40% (5.5 million) are extremely poor. In 2010, rural poverty was estimated at 77.9%, compared to urban poverty levels of 27.5%². Similarly, more than half of the rural population (approximately 58%) was afflicted by extreme levels of poverty whereas, in urban areas, the extreme poor remained at approximately 13%³. The situation is particularly dire for children, with an estimated 65% (4.6 million) children and adolescents living in poverty. Child poverty is also predominantly rural: 85% (3.89 million) of poor children live in rural areas. However, there is growing urban poverty for those living in informal settlements and urban poor areas⁴.

According to FAO 2009, 60% of Zambian households cannot afford 3 meals a day. This translates in the higher levels of under five year olds malnutrition. The Zambian child nutrition profile shows that 60% of households cannot afford three meals per day⁵, which leads to inadequate nutrient intake and malnutrition. The same research shows that in the 2000–02 periods, the dietary energy supply was only 1,905kcal per capita/day (ibid.). This indicates that households' actual calorie intake is lower than the estimated necessary requirement of 2,056kcal per capita/day. Carbohydrates such as cereals and starchy roots are the main source of energy which account for 80% of the total energy intake (ibid.). This suggests that the intake of other essential nutrients as well as protein and lipids is generally insufficient

All the informants discussed with in the study, demonstrated a level of understanding on diet, nutrition and child feeding but attributed their failure to comply practically with lack of resources both material and financial especially for the female headed homes. This confirmed the 2008 National Nutrition Surveillance Survey that found on average, only 4 out of 13 food groups were consumed in a day by households. Commonly consumed food groups included cereals and cereal products (98.9%), dark leafy vegetables (80.0%), oil and fats (60.6%), sugary foods (48.8%) and legumes, nuts and oil seeds (40.7%). Only 1% of the dietary energy supply (DES) is provided by fruit and vegetables. The low supply (5%) of foods of animal origin (meat and offal, milk and eggs, and fish) contribute to iron and protein deficiency. Study results show that 27% to 65% of the population cannot afford a minimum cost of a nutritionally adequate diet.

WHAT DO CLASSIC STUDIES ON HEALTH AND NUTRITION SAY?

There is clear established evidence from a study done by Lozoff et al., in Costa Rica. The evidence is that iron deficiency anaemia affects social and emotional development. In Costa Rica Lozoff et al., 1987, infants with iron-deficiency anaemia were found to maintain closer contact with caregivers; to show less pleasure and delight; to be more wary, hesitant, and easily tired; to make fewer attempts at test items; to be less attentive to instructions and demonstrations; and to be less playful. When these infant were followed up at age 11-12 years, the formerly anaemic group was more likely to have a number of behavioral problems. They were more anxious and depressed, had more attention problems, social problems and behavioral problems overall. They were also more likely to repeat grades at school and to be referred for special service”.

It is believed that these effects reflect, in part, biological pathways by which under nutrition affects neurological development. Controlled experiments with animals suggest that undernutrition results

² The World Bank- Mapping Sub-national poverty in Zambia pages 5 -9

³ Urban Child Poverty: A case for Copperbelt and Lusaka provinces 2015 by Economist Frank Kakungu funded by UNICEF through Save The Children Zambia Office

⁴ The World Bank report 2014

⁵ (FAO 2009)

in irreversible damage to brain development such as that associated with the insulation of neural fibres. The adverse effect of undernutrition on fine motor control suggests that physical tasks associated with attending school, such as learning to hold a pencil, are more difficult for the undernourished child. Nutrition in early childhood has a lasting impact on health and well-being in adulthood. Children with deficient growth before age 2 are at an increased risk of chronic disease as adults if they gain weight rapidly in later stages of childhood.

The principal underlying the nutrition intervention was that ***improved early childhood nutrition would accelerate mental development.*** An examination of the effects on physical growth also was included to verify that the nutritional intervention had biological potency, which was demonstrated⁶. The results provide the first evidence of its kind from a prospective survey of the important role played by early childhood nutrition in subsequent educational attainments and thus underscore the value of a lifecycle approach to education that includes the early childhood period. The study suggests that programs that include nutritional supplements to very young children, or in other ways improve their nutritional intakes, may have substantial, long-term educational consequences.

CONCLUSION

With the findings in this study on the effects of nutrition, health and education on child development from parents, teachers, DEBS office, Line Ministries, Health practitioners, and many others it would be gratifying for the stakeholders to go back to the sketch boards and see how they can help the children to fully develop their full potential by providing comprehensive ECCDE programs and activities. There can be no question that quality in ECCDE provision is paramount, both for the well-being of young children and if investments are to result in significant returns in the form of the well-prepared and productive future citizens. There is extensive evidence that investments in the nutritional, cognitive, and socio-emotional development of young children have high payoffs.

Approaches to Early Childhood Care, Development and Education (ECCDE) increasingly recognise that young children's survival, health, care and learning are impacted upon by multiple, interconnected factors from before the infant is born through to their early school years. The Lancet series on Early Childhood Development estimated that "200 million children under 5 years fail to reach their potential in cognitive development because of poverty, poor health and nutrition, and deficient care."⁷ The factors and processes contributing to this loss of developmental potential and the evidence for effective prevention and intervention are reviewed in the Lancet series⁸.

Neuroscience research is beginning to reveal the physical expressions of these processes in the growing and changing structure and function of the brain⁹. Toxic stress from early childhood adversity can lead to changes in learning, behavior and physiology. Physiological disruptions increase the chance of stress - related chronic disease which can further widen health disparities¹⁰.

It is now generally accepted that it is the dynamic interaction of nature and nurture that brings about changes in children's brain growth, function and capacities. That is, children's environments and experiences mediate (either enhancing or diminishing) the potential with which children are born. In the past, it was commonly thought that intelligence was 80% genetic and 20% environmental. Current thinking reverses the balance, that is, it is now thought to be 20% genetic and 80% environmental¹¹, with genes and experience being interdependent.

⁶ (Martorell et al. 1995)

⁷ (Grantham McGregor et al., 2007, p. 60)

⁸ (Grantham McGregor et al, 2007; Engle et al., 2007; 2011; Walker et al., 2011)

⁹ (Oates et al., 2012; Shonkoff and Phillips, 2000; Center on the Developing Child, 2011)

¹⁰ (Shonkoff et al., 2012)

¹¹ (Westwell, 2009)