

The first 1,000 days: A crucial time for mothers and children — and the world by Roger Thurow, Hachette Book Group, 2016

Daniel W. O'Neill^a

^a MD, MTh, Managing Editor, CJGH; Assistant Professor of Family Medicine, University of Connecticut School of Medicine, USA

Roger Thurow, a senior fellow for global food and agriculture at the Chicago Council on Global Affairs, wrote this book to highlight the vital stage in the human life cycle of the formative first 1000 days (F1000D) from conception and to make the concepts tangible to the common reader. As stated in the introduction, this book supports a “revolutionary movement” (p18) to focus development resources and attention on this time period when malaria, diarrhea, and the “neglected stepchild” of nutritional deficiencies (historically <1% of international development aid and affecting half the world’s population, p 9) can have profound effects on economies and global well-being. He builds on the 2004 Copenhagen Consensus when economists placed nutrition strategies, especially in early childhood, as highest priority after HIV¹; the 2007 World Bank awakening to the F1000D as a key to “human capital development,”² and the landmark 2007-8 *Lancet* series on early childhood as the “critical window of opportunity,” and “an enormous unfinished agenda.”^{3,4}

Thurow advances this agenda through this book by following, in a reporter-like fashion, four specific family units embedded in communities in four corners of the earth: Rural Northern Uganda, Northern India, the highlands of Guatemala, and the South Side of Chicago, USA. He explores the relevant science, economics, politics, and development innovations, weaving these creatively throughout the stories in a captivating narrative tapestry. He uses four sections, like acts in an epic play, to focus on the life cycles of families in these four regions from early stages of pregnancy to birth,

the first year, and the second year — the critical first thousand days.

Part One: Pregnancy

He begins with an account of Brenda and Esther’s journey through pregnancy in Uganda where micronutrient deficiencies (*e.g.*, vitamin A and iron), particularly during pregnancy, are being addressed with World Vision programs, introducing the orange-flesh sweet potato and iron-containing beans which were already demonstrating some health benefits.

He then paints a vivid picture of a low caste village in Uttar Pradesh, a populous and impoverished state characterized by a 55% incidence of stunting (small for age due to malnutrition), a 50% incidence of anemia in pregnant women, 63 infant deaths per 1000 live births, and maternal mortality of 345 per 100,000 live births. The latter number is well above the global rate of 210. He traces the work of Vishwajeet Kumar, founder of the *Community Empowerment Lab* at Johns Hopkins University. He sensed a calling to community-based empowerment to reduce these dismal statistics through addressing traditional practices rooted in the caste system, culture, and spirituality to overcome fatalism.⁵ Thurow then introduced the characters Mohana and Shamkali, whose progress would be traced throughout the book.

Switching scenes, Thurow then introduces Susana Menchu, an indigenous Guatemalan woman and her family who were receiving training from *Primero Pasos*, a nutrition program to address the income disparities and cultural tastes of a potato-

based diet leading to one of the worst malnutrition, stunting, and parasitic infestation rates in the Americas. Paradoxically, many other nutritious vegetables are grown and exported, and it took a concerted political will on the part of the ruling class to develop the *Zero Hunger Pact* to take action on hunger and disparities. The effects are well-studied in Guatemala.⁶

Then the scene switches to Patricia in inner-city Chicago whose pregnancy benefitted from the *Ounce of Prevention* program, her committed doula Patricia, Catholic Charities, and Mayor Emmanuel's program of correcting the poor nutrition and "food deserts" in the city — what was described as, "malnutrition amid abundance," (p. 69) like the examples for the other countries.

The messages in these stories are, "uniformly mundane — and revolutionary" (p. 74) — that investing in micronutrients during pregnancy and avoiding obesity from excessive empty calories (under- and over- nutrition) has profound life-cycle effects on health and survival. Deficiencies in protein, omega-3 fatty acids, iron, zinc, iodine, thiamine, selenium, folate, and vitamin A and D affects fetal neurological development. The author contextualizes the approach in these countries in detail as each pregnant woman approaches their due dates, struggling to obtain quality prenatal care, adequate water, sanitation, and hygiene. He paints a picture of the extremes of limited resources in birth facility descriptions in vivid detail.

Part 2 – Birth

Thurow describes the perilous birth process for these four regions in stark detail, sharing statistics on how one million babies perish per year at birth globally — usually from birth asphyxia, infection, or prematurity. Simple interventions such as soap and water, resuscitation devices, antiseptic cord cleanser, antibiotics for sepsis, and steroids for premature fetal lung maturity could save many lives. Immediate chest swaddling, drying the newborn to prevent hypothermia, and overcoming barriers to support

breast-feeding the newborn were elaborated in each context. The economic, cultural, seasonal, and social factors that affect birth location and timing are described as a "lottery," but are subject to intervention for improved outcomes. Photos of the people described in the book make their reality and opportunity more palpable and real to the reader.

Part 3 – The First Year

This section of the book continues the chronicles that started with the death of Mohana's infant daughter in India of an infectious respiratory disease, a community bout of dysentery from a chronically- contaminated well, and the recovery of Brenda's son after medical intervention and the subsequent challenge of malaria treatment. Diarrhea killed 600,000 children in 2013 — a preventable and treatable illness. He notes that 660 million people still access unsafe water sources, and 2 billion people do not use adequate latrines or practice adequate hygiene. Susy in Guatemala applied standard nutrition and WASH methods to avoid chronic environmental enteropathy from infants ingesting contaminated items, which leads to stunting and poor cognitive development.

He then traces the innovative agricultural work of Howdy Bouis who championed the growth of crops designed to include needed micronutrients. The transition to solid food for these infants requires complementary feeding — diverse fruits and vegetables with breast feeding to avoid stunting and facilitate strong development.

Part 4 – The Second Year

The final section emphasizes the allurements of undocumented immigration to the United States for the Guatemalan family ostensibly to procure a better life for their daughter and the perils that present. Jessica's struggle continued as teen mother through public high school in Chicago while retaining her aspirations for her daughter, and Shyamkali's hard-working husband, Rajender, took responsibility for their 5, then 6 girls.

Economic down-turns and corruption undermined the effectiveness of programs targeting the F1000D in Guatemala. The key role parents play in infant and toddler cognitive and social development by “tuning in, talking more, and taking turns” and the science behind it was explained (p. 232), and thinking beyond just child survival was critical. The four acts conclude on the childrens’ second birthdays.

Epilogue

The book ends with a hopeful but challenging plea that describes the estimated annual loss US\$3.5 trillion globally caused by stunting and child malnutrition. The World Bank, United Nations, the Gates Foundation, and many other organizations have begun to focus efforts on nutrition and the F1000Ds to fight intractable poverty in a multi-dimensional approach. The UN’s Ban Ki-moon noted, “children are agents of change” and Thurow added that, though progress is being made, and setbacks do occur, the movement will be secure if it can “grab ahold of our collective conscience.” (p. 259)

Assessment

This book indeed appeals to the conscience, especially the Christian conscience, providing four very real contexts where the importance of the F1000Ds is magnified. The stories are captivating and at times heart-wrenching, although the narrative can be a little hard to follow, as it kept skipping back and forth between characters and locations. The intercalation of both global health statistics and accounts of the engagement of activists, researchers, and organizations created a compelling case for the priority of the F1000D. Given his agricultural background, it is no surprise that Thurow emphasizes that aspect of the F1000D throughout the book: “nutrition is the cornerstone of all development efforts.” (p. 250)

The book includes a Reading Group Guide with thought-provoking questions and a brief list of ways to get involved. Many of the organizations mentioned are Christian ones. Although it not an academic book replete with references, it has appeal for the common reader who would desire to make a difference in the world, giving them a clearly-defined place in the life cycle to do just that.

Further Developments

Since the book was released in 2016, *the Nurturing Care for Early Childhood Development (ECD): a framework for Action and Results* was launched in many countries from August 2017 to May 2018.⁷ The ECD Action Network, Partnership for Maternal, Newborn, & Child Health, WHO, World Bank Group, and UNICEF have all advanced this movement. ECD was included in the SDGs (4.2) in 2015. The landmark *Lancet* Series on ECD in 2017^{8,9,10,11} with an added emphasis on the preconception stage of development in 2018^{12,13} reinforced the concept that there are huge downstream effects on health, education, just societies, and job creation.

A research gap exists in studying the effect of faith on the F1000Ds.¹⁴ The multi-faith Moral Imperative convened by the World Bank garnered collective will in 2018 to focus on women and early childhood for faith-based strategies in poverty alleviation.¹⁵ Religious commitment’s effect on parenting is one such area being explored.¹⁶ Olusanya from Nigeria is a leader in prioritizing ECD by applying the best evidence for timely intervention in LICs.¹⁷ DeAngulo from Peru emphasized how Christian faith can inform an emphasis on this vital developmental period, which he proposed should be considered a new paradigm for global health.¹⁸ Lundie and Hancox in this issue supports a much needed call for the Church to play a significant role in the F1000Ds.¹⁹

The First 1,000 Days: A Crucial Time for Mothers and Children — and the World is an

excellent place for FBOs, global health practitioners, and churches around the world to begin being sensitized to the need to become engaged with this most pressing global health need.

References

- Behrman JR, Alderman H, Hoddinott J. Hunger and malnutrition. Copenhagen Consensus — Challenges and Opportunities [Internet]. 2004 Feb 19. Available from: https://www.copenhagenconsensus.com/sites/default/files/Hunger_and_Malnutrition_070504.pdf
- World Bank Group. Early childhood development. Understanding poverty [Internet]. Available from: <https://www.worldbank.org/en/topic/earlychildhooddevelopment>
- Grantham-McGregor S, Cheung YB, Cueto S, Glewwe P, Richter L, et al. Developmental potential in the first 5 years for children in developing countries. *Lancet*. 2007 January 6;369(9555):60-70. [https://doi.org/10.1016/S0140-6736\(07\)60032-4](https://doi.org/10.1016/S0140-6736(07)60032-4)
- Walker SP, WACHS td, Gardner JM, Lozoff B, Wasserman GA, Pollitt E, et al. Child development: risk factors for adverse outcomes in developing countries. *Lancet* 2007;369:145-57. [https://doi.org/10.1016/S0140-6736\(07\)60076-2](https://doi.org/10.1016/S0140-6736(07)60076-2)
- Vishwajeet Kumar: TEDxChange @ TEDxDelhi [Internet]. Bill & Melinda Gates Foundation. Available from: <https://www.youtube.com/watch?v=ftBxX4dGKSM>
- Hoddinott J, Maluccio JA, Behrman JR, Flores R, Martorell R. Effect of a nutrition intervention during early childhood on economic productivity in Guatemalan adults. *Lancet*. 2008;371(9610):411-6. [https://doi.org/10.1016/S0140-6736\(08\)60205-6](https://doi.org/10.1016/S0140-6736(08)60205-6)
- WHO. Nurturing care for early childhood development: a framework for helping children survive and thrive to transform health and human potential. 2018. Available from: <https://apps.who.int/iris/bitstream/handle/10665/272603/9789241514064-eng.pdf>
- Black MM, Walker SP, Fernald LCH, Andersen CT, DiGirolamo AM, Lu C, et al. Early childhood development coming of age: science through the life course. *Lancet*. 2017;389(10064):77-90. [https://doi.org/10.1016/S0140-6736\(16\)31389-7](https://doi.org/10.1016/S0140-6736(16)31389-7)
- Richter LM, Daelmans B, Lombardi J, Heymann J, Boo FL, Behrman JR, et al. Investing in the foundation of sustainable development: pathways to scale up for early childhood development. *Lancet*. 2017;389(10064):103-18. [https://doi.org/10.1016/S0140-6736\(16\)31698-1](https://doi.org/10.1016/S0140-6736(16)31698-1)
- Britto PR, Lye SJ, Proulx K, Yousafzai AK, Matthews SG, Vaivada T, et al. Nurturing care: promoting early childhood development. *Lancet*. 2017;389(10064):91-102. [https://doi.org/10.1016/S0140-6736\(16\)31390-3](https://doi.org/10.1016/S0140-6736(16)31390-3)
- Chan M, Lake A, Hansen K. The early years: silent emergency or unique opportunity? *Lancet*. 2017;389(10064):11-3. [https://doi.org/10.1016/S0140-6736\(16\)31701-9](https://doi.org/10.1016/S0140-6736(16)31701-9)
- Stephenson J, Hoeslehurst N, Hall J, Schoenaker DAJM, Hutchinson J, Cade JF, et al. Before the beginning: nutrition and lifestyle in the preconception period and its importance for future health. *Lancet*. 2018. [https://doi.org/10.1016/S0140-6736\(18\)30311-8](https://doi.org/10.1016/S0140-6736(18)30311-8)
- Fleming TP, Watkins A, Velazquez MA, Mathers JC, Prentice AM, Stephenson J, et al. Origins of lifetime health around the time of conception: causes and consequences. *Lancet*. 2018. [https://doi.org/10.1016/S0140-6736\(18\)30312-X](https://doi.org/10.1016/S0140-6736(18)30312-X)
- Bartkowski J P, Xu X, Levin M L. Religion and child development: evidence from the Early Childhood Longitudinal Study. *Social Science Research*. 2008;37(1):18-36. <https://doi.org/10.1016/j.ssresearch.2007.02.001>
- The Moral Imperative. Results for children: high-level advocacy forum on investing in early childhood development [Internet]. Annual Meetings of the World Bank and IMF. Bali, Indonesia. 2018 Sept. Available from: <https://jliflc.com/wp/wp-content/uploads/2018/09/MI-Bali-WB-IMF-Annual-Meetings-Concept-FINAL1.pdf>
- Goeke-Morey MC, Cummings EM. Religiosity and parenting: recent directions in process-oriented research. *Current Opinion Psych*. 2017;15:7-12. <http://dx.doi.org/10.1016/j.copsyc.2017.02.006>
- Olusanya BO. Priorities for early childhood development in low-income countries. *J Dev Behav Pediatr*. 2011;32: 476-81. <https://doi.org/10.1097/DBP.0b013e318221b8c5>
- De Angulo JM, Losada LS. The emerging health paradigm in the 21st century: The formative first 1000 days of life. *Chr J Glob Health*. Nov



2016;3(2):113-28.
<https://doi.org/10.15566/cjgh.v3i2.38>

Health. 7(2);June 2020.
<https://doi.org/10.15566/cjgh.v7i2.323>.

19. Lundie RE, Hancox DM. The local church and the first thousand days of a child's life. *Chr J Glob*

Submitted 15 June 2020, accepted 17 June 2020, published 5 Aug 2020

Competing Interests: None declared. Dr. O'Neill is the co-chair of the evidence working group of the Moral Imperative.

Correspondence: Dr. Daniel O'Neill, Connecticut, USA. dwoneill@cjgh.org

Cite this article as: O'Neill DW. The first 1,000 days: A crucial time for mothers and children — and the world by Roger Thurow, Hachette Book Group, 2016. *Christ J for Global Health*. Aug 2020; 7(3):23-27. <https://doi.org/10.15566/cjgh.v7i2.407>

© Author. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are properly cited. To view a copy of the license, visit <http://creativecommons.org/licenses/by/4.0/>
