Integrating health, social care and education across the first 2,000 days

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The early life period from conception to age five is a critical time during which the foundations of a child's lifelong health and wellbeing are laid.[1] Early life experiences and the conditions into which children are born and live are not equal, leading to inequalities in children's health and development outcomes.[2] During early life, the services that children and families are most likely to encounter are health, social care and education services. These are designed to support early childhood health and development; however, some families struggle to access some or all of the services they need.[2,3] This is likely in part because the service system can be difficult to navigate, with health, social care and education services often operating in silos.[3] A more coordinated approach across health, social care and education that targets the underlying drivers of child health and development may help address inequalities and improve children's health and development outcomes.

The importance of the first 2,000 days

The first 2,000 days of a child's life – the period from conception to age five – represents a critical opportunity for action to promote health and health equity.[4] During this time, the brain undergoes its most rapid period of development, building both structural and functional foundations. A child's skills and capacity for effective learning, memory and communication are all established during this period of early brain development.[5] Dietary preferences and weight trajectories are also established during this time.[6,7] Children's health and development are inextricably linked, and opportunities to alter lifelong pathways of health and development are greatest in the early life period.[8] Core components of nurturing care for early childhood development include health, nutrition, security and safety, responsive caregiving and opportunities for early learning and active play.[9] These domains cross multiple services and sectors, with practitioners across multiple disciplines playing a role to promote and support optimal child health and development.

It takes a village to raise a child

In the first five years of life, children typically have frequent contact with a range of health, social care and education services. Health services likely to be accessed by families with young children include primary healthcare provided by general practitioners, maternal and child health nurses, paediatricians and community health professionals. Social care services that families are likely to have contact with include parenting support programs, community services and cultural community services. Early childhood education and care services are utilised by many Australian families with around 45% of children aged 0–5 accessing childcare and 80% of 4-year-olds attending preschool.[10] The role of the practitioners in these settings is considered essential to supporting nurturing care[1] and the provision of high-quality services is associated with improved outcomes for children.[11] For Aboriginal and Torres Strait Islander peoples, culture is also foundational to health and wellbeing, shaping individuals, communities and societies. Cultural determinants of health include connection to country, Indigenous beliefs, knowledge and language, cultural expression, family, kinship and community, and self-determination and leadership.[12]

A more coordinated approach across the health, social care and education sectors requires commitment to and implementation of shared and collective action across the sectors, and acknowledgement of culture. A coordinated approach to health and social wellbeing is demonstrated by the Aboriginal community-controlled health sector,[12] but is not routinely practised more widely. Critically, a more coordinated approach is necessary to address the more complex needs of children who experience social or economic disadvantage and who stand to benefit the most from an integrated service system.[13] A coordinated approach also creates a greater voice to collectively address the needs of children and families.

Addressing the social determinants of health

A family's capacity to nurture optimal child health and development depends on the conditions in which they live, shaped by the social determinants of health. The social determinants of health are the conditions into which children are born, live and grow. These include early life experiences; opportunities for education; housing; employment and working conditions; access to healthcare; social exclusion, discrimination and unresolved stress; and social support. They also include the broader social, economic and political systems that shape the societies in which people live.[14] These determinants are not experienced equally by all children, leading to some groups of

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Aust NZ J Public Health. 2023; Online; https://doi.org/10.1016/j.anzjph.2022.100014

children living with a greater risk of poor health and development.[3] For example, marked socioeconomic inequalities in children's development outcomes have been observed at school entry across Australia, whereby children experiencing greater socioeconomic disadvantage are more likely to be developmentally vulnerable on one or more domains of the Australian Early Development Census.[15] What's more, the risk factors for poor health and development tend to cluster in such a way that a child exposed to one risk factor is likely to be exposed to multiple risks. An integrated health, social care and education system, where practitioners across disciplines and sectors are encouraged and supported to work together, is likely to be more responsive to the range of needs experienced by children and families, and better placed to address the common drivers of children's health and development risks.

Translating evidence into practice

In recognition of the benefits of integrated approaches to child health and development, there is support for the integration of child and family services to enhance early childhood health and development. For example, the South Australian Government has established a dedicated office for the Early Years within the Department of Education to lead an integrated early years system across education, health and community services.[16] The Victorian Government has outlined a framework to support the establishment and operation of children's centres[17] and the Victorian Early Years Learning and Development Framework[18] supports increased coordination and integration of early childhood services to achieve common outcomes for all children. Yet, many practitioners continue to be siloed by the settings they work in, the agencies they are employed by and linear practice approaches, as well as a reluctance to ask families about circumstances beyond the scope of their sector.[19]

A more collaborative approach will require changes to governance and organisational structures to enable joint planning and coordinated delivery of services. For practitioners, this means looking beyond differences in discipline-specific training and practices to establish and maintain collaborative working relationships that are underpinned by a shared vision for children's health and wellbeing. These practices can be supported by principles of inclusive governance, respectful relationships across disciplines, and a shared vision driven by the needs of children and families.[20]

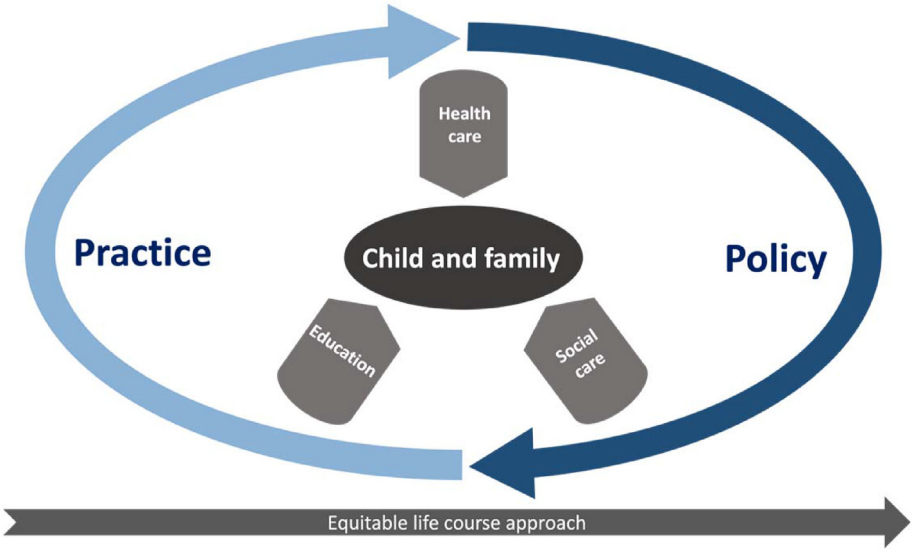
There are now several examples of integrated service delivery in Australia. The Doveton Model, at Doveton College in Victoria, provides a working example of how health, social care and education can be integrated to provide wraparound care to families, with academic benefits observed among children attending the Doveton College early learning centre.[21] In Western Australia, government-run Child and Parent centres are located in or near schools and have successfully brought together health and social services with close proximity to education facilities.[22] Co-designed with local communities, Tasmania's Child and Family Services have brought multiple services together, reducing barriers to access and increasing families' engagement with and uptake of services.[22]

Integrating health, social care and education to address the determinants of health

We propose widespread adoption of an integrated approach to health, social care and education to equitably improve children's health and development. Our vision is illustrated in a model that draws upon the respective strengths of each of the sectors and brings them together in policy and practice to meet the holistic needs of child health and development (Figure 1).

The model takes a socioecological view of child health and development. Positioned at the centre are the child and family. Placing the child and family at the nexus of health, social care and education takes the emphasis away from service providers as experts and recognises the role of the family in providing nurturing care.[23] Surrounding the child and family are health, social care and education, with integrated policies and practices wrapping around the child and family and coming together to collectively meet the holistic needs of the child.

Figure 1: An integrated model of health, social care and education.



This approach is underpinned by an equitable life-course approach,[4] recognising the critical window of opportunity for early intervention during the first 2,000 days of a child's life,[5] and acknowledging the lifelong and intergenerational impacts of early childhood health and development.[1] The explicit focus on equity is necessary to motivate efforts to eliminate inequalities.[24,25] Reducing inequalities means reducing the social gradient in health that runs across the whole of society by levelling up the health of all those whose health is below the highest attainable standard. This requires actions that are delivered universally *and* proportionately to the level of need.[26] These approaches need to be embedded within policies, strategies and services throughout the health, social care and education systems. Indeed, there is consensus that early interventions to support the best start to life for all children are multi-sectoral and integrated with existing preventive and early intervention strategies and leverage existing intervention delivery platforms to enhance scalability and sustainability.[5]

This model also has benefits for practitioners. Advantages of a more coordinated approach include opportunities for cross-disciplinary learning and connection, a broader understanding of the impact of social and cultural determinants, and a more holistic view of health and development.

Drawing on core principles to drive action

To guide practice, we draw upon the principles of the Ottawa Charter: build healthy public policies, create supportive environments, strengthen community actions, develop personal skills and reorient services.[27] Policy reform and revised funding models will be necessary to facilitate collaboration between departments across all levels of government, and with the many service providers, organisations, and business and philanthropy stakeholders engaged in early childhood health and development. Policies that address key social issues such as income support, employment and housing are also essential to protect and promote child health and development.[13] Community leadership must be central to the co-design, prioritisation, and implementation of strategies to improve health and development and address inequities.[4] The Victorian Health Promotion Foundation (VicHealth) has demonstrated its commitment to adopting this approach through its recent investment in Future Healthy, working *with* communities across Victoria to listen, learn and implement programs alongside them to create environments that support the health and wellbeing of children and young people. A system responsive to individual family needs should have at its core the goal to empower parents and families. This is especially important in making programs and services more accessible to the often underserved families who experience vulnerabilities.[3] Finally, there is a need to reorient services to facilitate a more coordinated, collaborative approach to care, supported by a systematic strengthening of partnerships between health, social care and education providers.

Conclusion

Early childhood is a critical period for prevention and early intervention to give every child the best start in life; however, current models of care are not fully meeting the needs of all children and families. Drawing on theory and evidence from public health and social sciences, we support the widespread adoption of an integrated model of health, social care and education that brings together different disciplines and sectors to support children's development across the first 2,000 days, underpinned by policy commitments that support coordinated and collaborative ways of working. An integrated approach has mutual benefits for families and practitioners alike and may help to address common drivers of children's health and development inequalities. Commitment to integration across health, social care and education throughout the first 2,000 days is a necessary step towards equitably improving health and development for all Australian children.

Ethics approval

Ethics approval was not required for the preparation of this article.

Funding

AC receives funding from the Medical Research Future Fund Preventive and Public Health Research Initiative (APP1199826) and a VicHealth Postdoctoral Fellowship. MG receives funding from a National Health and Medical Research Council Postgraduate Scholarship (GNT2005401).

Conflicts of interest

The authors declare no competing interests.

Acknowledgements

Alexandra Chung and Michelle Gooey are joint first authors.

References

1. 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.
2. Pearce A, Dundas R, Whitehead M, Taylor-Robinson D. Pathways to inequalities in child health. *Arch Dis Child* 2019;**104**(10):998–1003.
3. Moore T, McDonald M, McHugh-Dillon H. *Early Childhood Development and the Social Determinants of Health Inequities: A Review of the Evidence*. Melbourne: AUST): Royal Children's Hospital Murdoch Childrens Research Institute Centre for Community Child Health; 2014.
4. Skouteris H, Bergmeier HJ, Berns SD, Betancourt J, Boynton-Jarrett R, Davis MB, et al. Reframing the early childhood obesity prevention narrative through an equitable nurturing approach. *Maternal & Child Nutrition* 2021;**17**(1):e13094.
5. 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.
6. Birch LL, Doub AE. Learning to eat: Birth to age 2 y. *Am J Clin Nutr* 2014;**99**(3): 723S–8S.
7. Simmonds M, Llewellyn A, Owen CG, Woolacott N. Predicting adult obesity from childhood obesity: A systematic review and meta-analysis. *Obes Rev* 2016; **17**(2):95–107.
8. Goldfeld S, O'Connor M, Cloney D, Gray S, Redmond G, Badland H, et al. Understanding child disadvantage from a social determinants perspective. *J Epidemiol Community Health* 2018;**72**(3):223–9.
9. World Health Organization, United Nations Children's Fund, World Bank Group. *Nurturing Care for Early Childhood Development: A Framework for Helping Children Survive and Thrive to Transform Health and Human Potential*. Geneva (CHE): WHO; 2018. Licence: CC BY-NC-SA 3.0 IGO.
10. Australian Institute of Health and Welfare. *Childcare and Early Childhood Education*. Canberra: (AUST): AIHW; 2021.
11. Newman S, McLoughlin J, Skouteris H, Blewitt C, Melhuish E, Bailey C. Does an integrated, wrap-around school and community service model in an early learning setting improve academic outcomes for children from low socioeconomic backgrounds? *Early Child Dev Care* 2022;**192**(5):816–30.
12. Finlay S, Canuto K, Canuto K, Neal N, Lovett R. Aboriginal and Torres Strait Islander connection to culture: building stronger individual and collective wellbeing. *Med J Aust* 2021;**214**(8 Suppl):S12–6.
13. 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.

14. Commission on Social Determinants of Health. *Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health. Final Report of the Commission on Social Determinants of Health*. Geneva (CHE): World Health Organization; 2008.
15. Collier LR, Gregory T, Harman-Smith Y, Gialamas A, Brinkman SA. Inequalities in child development at school entry: A repeated cross-sectional analysis of the Australian Early Development Census 2009-2018. *Lancet Reg Health West Pac* 2020;**4**:100057.
16. South Australian Government Department for Education. *South Australia's Early Learning Strategy 2021 to 2031*. Adelaide: AUST): State Government of South Australia; 2021.
17. Centre for Community Child Health. Evaluation of Victorian Children's Centres. *Melbourne (AUST)*. Victorian Government Department of Education and Early Childhood Development; 2010.
18. Victorian Curriculum, Assessment Authority. *Victorian Early Years Learning and Development Framework*. Melbourne: (AUST): Victorian Government Department of Education and Training; 2016.
19. Browne-Yung K, Freeman T, Battersby M, McEvoy DR, Baum F. Developing a screening tool to recognise social determinants of health in Australian clinical settings. *Public Health Res Pract* 2019;**29**(4):28341813.
20. Royal Children's Hospital Murdoch Childrens Research Institute Centre for Community Child Health. *Victorian Government Department of Education and Training. Evaluation of Victorian Children's Centres: Framework to Support the Establishment and Operation of Children's Centres*. Melbourne: (AUST): State Government of Victoria; 2010.
21. Newman S, McLoughlin J, Skouteris H, Blewitt C, Melhuish E, Bailey C. Does an integrated, wrap-around school and community service model in an early learning setting improve academic outcomes for children from low socioeconomic backgrounds? *Early Child Dev Care* 2022;**192**(5):816–30.
22. Moore TG. *Developing Holistic Integrated Early Learning Services for Young Children and Families Experiencing Socio-economic Vulnerability*. Melbourne (AUST): The Royal Children's Hospital Murdoch Children's Research Institute Centre for Community Child Health; 2021.
23. Black M, Behrman JR, Daelmans B, Prado EL, Richter L, Tomlinson M, et al. The principles of nurturing care promote human capital and mitigate adversities from preconception through adolescence. *BMJ Glob Health* 2021;**6**(4):e004436.
24. Braveman P. What is health equity: And how does a life-course approach take us further toward it? *Matern Child Health J* 2014;**18**(2):366–72.
25. Munari SC, Wilson AN, Blow NJ, Homer CSE, Ward JE. Rethinking the use of 'vulnerable'. *Aust N Z J Public Health* 2021;**45**(3):197–9.
26. Marmot M, Bell R. Fair society, healthy lives. *Public Health* 2012;**126**(Suppl 1):S4–10.
27. World Health Organization. *The Ottawa Charter for Health Promotion*. Geneva (CHE): WHO; 1986.