Most paediatric research is conducted in public health or hospital inpatient settings. The Australian Paediatric Research Network (APRN) is a network that fosters research in office-based settings, where most practice actually occurs. In 2007, we surveyed members to ascertain their research priorities.[1] Seven years on, we repeated this survey to ensure on-going relevance of APRN's research agenda for practising paediatricians. Ethics approval was granted by The Royal Children's Hospital Human Research Ethics Committee (HREC #34099).

We invited APRN members (n=448-478) to participate in a two-stage Delphi email survey. In Stage 1 members were asked "*Thinking about your clinical practice, what is/are the most important research question(s) which need addressing*?" Where necessary responses were re-worked into answerable research questions. In Stage 2, members rated each question's importance to their practice on a 5-point scale. Ratings were averaged to generate a ranked list of research priorities.

70 APRN members contributed 189 research questions, of which 45 were both amenable for study in a practice-based research network and not previously adequately researched. 163 APRN members completed Stage 2. In both 2007 and 2014, *obesity treatment* and a*utism spectrum disorder outcomes* ranked in the top four research priorities. Developmental, behavioural and mental health topics comprised 20% of questions in 2007 and 35%in 2014. This rise is perhaps explained by an increase in the proportion of developmental and behavioural problems managed by general paediatricians.[2] "Systems-based" questions (i.e. questions pertaining to the functioning of the health system as opposed to specific conditions)

made up 30% of the Stage 2 questions, double that of the 2007 study. The highest ranked "systems-based" priority was "*What conditions traditionally seen by a subspecialist paediatrician could be safely co-managed with a general paediatrician?*" (see table). Other "systems-based" topics included *access to health and education for children with chronic conditions*, *shared care models*, and *transition to adult care*.

Australian paediatricians prioritise research into developmental, behavioural, mental health, and "systems-based" topics. Their priorities likely reflect changing casemix and practice. Yet current child health research in Australia tends to focus on specific diseases.[3] Developing and evaluating new models of care which address concerns raised by APRN members - such as shared care (with subspecialist and general practitioners), access to care, and transition to adult care - has the potential to benefit large numbers of Australian children, beyond specific disease management.

Table: Mean ratings of the top 23 research priorities proposed in Delphi Stage 2 Survey, by importance.

Priorities	Mean[¥] (Std. Dev)
1. What are the most effective treatment options for childhood obesity?	3.91 (1.15)
2. What are the trajectories of pre-schoolers diagnosed with ASD over time, and to what extent are trajectories influenced by baseline severity and early intervention?	3.77 (1.17)
3. In crying babies where a paediatrician deems no medical treatment is needed, what information and approach helps to reassure parents?	3.61 (1.12)
4. What conditions traditionally seen by a subspecialist paediatrician could be safely co-managed with a general paediatrician?	3.61 (1.10)
5. How should general paediatricians help families of children with chronic conditions to access services in the health and education systems?	3.53 (1.10)
6. Can brief interventions delivered in the paediatric outpatient setting improve short and long-term outcomes of children with challenging behaviours?	3.50 (1.15)
7. What low cost, low burden strategies (e.g. on-line activities, relaxation apps) are most effective in reducing anxiety?	3.50 (1.17)
8. Does upskilling primary care providers to co-manage developmental/behavioural problems reduce paediatric waiting lists?	3.48 (1.20)
9. Which conditions are associated with late transition to adult services and what factors (patient, family, doctor, healthcare system) influence transition timing?	3.43 (1.10)
10. For children with suspected obstructive sleep apnoea what clinical indicators would suggest first line medical as opposed to other management?	3.38 (1.06)
11. Does better detection and management of common ADHD co-morbidities (e.g. working memory, anxiety) lead to better outcomes?	3.35 (1.14)
12. For young people with chronic conditions, what are the health economic costs (to the family and the system) of poor transition to adult care?	3.34 (1.10)

13. Which of a) inhaled steroid b) oral steroid, or c) leukotriene receptor antagonist therapy has the best efficacy in preschoolers with viral-induced wheeze?	3.33 (1.30)
14. In children with serious illnesses, what is the impact of managing behavioural sleep problems on their well-being and functioning?	3.26 (1.02)
15. What are the primary school outcomes of preschoolers with multi-domain non-ASD developmental/behavioural concerns and no clinical diagnosis?	3.24 (1.18)
16. Does standardised co-morbidities assessment enhance behaviour change and/or improve outcomes in childhood obesity?	3.20 (1.09)
17. How do Australian paediatricians currently use and monitor second generation anti-psychotics?	3.20 (1.19)
18. What is the impact of comprehensive health assessments on the health and well-being of children entering out of home care?	3.14 (1.17)
19. Can practical clinical tools be developed to better identify which obese children will develop adverse outcomes (e.g. polycystic ovarian syndrome)?	3.13 (1.12)
20. How health literate are parents with regard to their children's diet?	3.13 (1.13)
21. What are the barriers and enablers to use of evidence-based resources to manage constipation prior to seeing a paediatrician?	3.11 (1.10)
22. What model of follow-up (GP, paediatrician, nurse) provides the best and most cost effective outcomes for asthma?	3.08 (1.11)
23. What are the benefits and costs of telehealth to paediatricians and patients?	3.00 (1.07)

[¥] Average of all responses on 5-point scale from 1 = "not important" to 5 = "extremely important/essential"

References

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