Practice teams helping parents improve nutrition for children

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Nutrition is a major child health issue in New Zealand. The RNZCGP have adapted their Quality Cycle to include the WellChild framework to assist practice teams with their management of nutrition. The RNZCGP WellChild resource also has a number of other practice review activities[1] that have been developed as a general practice response to the National WellChild Strategy.[2]

The WellChild Strategy was developed as a New Zealand response to the intention and direction of the United Nations Convention on the Rights of the Child.[3] It is consistent with the principles of the Ottawa Charter and the Treaty of Waitangi. The main objectives of the Strategy are to improve, promote and protect the health and development of children by focusing on evidence-based health promotion and improvement strategies.

Components of the WellChild Strategy

1 Principles of best practice care

Best practice care is based on:

- the child and their family
- availability, good quality and safety
- cooperative relationships with other organisations/providers
- equity and fairness
- best practice, research and education
- a service that is culturally safe, acceptable and values diversity
- the best use of available resources.

2 A framework for developing strategies for WellChild care

- A greater focus on health promotion, prevention and early intervention
- Better coordination
- Child health information strategy
- Child health workforce development
- Child health evaluation and research
- Leadership in child health.

The framework has been incorporated into the RNZCGP Quality Cycle to assist practice teams develop their own solutions for improved child health.

General practice interventions for improving outcomes for child health

There are seven interventions that have been identified as being effective and having the ability to produce positive change in services for children.[2] In a general practice setting the different and complementary skills of the practice team are important to improving outcomes, as are the links to other organisations in the community that can provide complementary care and support.

1. **Early interventions**

   Preventive focus

2. **Multiple settings**

   Involving family, school or other community support agencies

3. **Multi-component**

   Providing health education directly to the child, working with parents to develop parenting skills etc.

4. **Multi-year interventions**

   Identifying intergenerational issues, multiple disadvantages

5. **Empowering**

   Identifying interventions that build on family strengths

6. **Practical help**

   Undertaking a needs assessment to identify and evaluate the situation, and potential for change

7. **Support networks**

   Promoting support networks to share responsibility - formal, informal, community

The general practice team

To provide child-friendly care, the general practice team needs to have an understanding of children, their families and whanau and the diverse cultures in which they live. Knowing the child in the context of their family and providing continuity of care along the continuum is a key factor in general practice care.

If a practice team has good information combined with an understanding of a child's situation, or potential for risk, it provides an opportunity to prevent or respond to signs of stress or ill health.

The RNZCGP also has developed expectations for the care a GP provides to babies, infants and children.

RNZCGP standards for GP care of babies, infants and children[4]

Indicators

1. Develop appropriate and effective relationships with infants, children and their caregivers.
2. Ensure that the practice environment is appropriate for children (child friendly).
3. Recognise the influence of the family on prevention, presentation and management of childhood illness.
4. Recognise, assess and manage common and/or important physical conditions in babies, infants and children.
5. Recognise, assess and manage common and/or important behavioural and mental health conditions in babies, infants and children.
6. Distinguish between normal and abnormal developmental changes.
7. Respond to neonatal and serious childhood illness at an early stage.
8. Use current screening practices for neonates and children.
9. Use current immunisation guidelines.
10. Promote uptake of immunisation.
11. Encourage and support appropriate parenting skills and family involvement in the maintenance of child health.
12. Use appropriate legal and support systems available to protect and care for children.
13. Recognise and assist in managing child abuse.

Children at high risk for poor health outcomes

There are a number of factors that children have no control over and which put them at risk of poor health outcomes. The underlying risk factors need to be identified and acted upon as they can have a cumulative effect. A regular check of children that present with nutrition problems provides the practice team with information about the circumstances surrounding a child that could affect their overall health status.

Major risk factors for poor outcomes in children[2]

- Prolonged low income
- Long-term unemployment
- Socio-economic disadvantage
- Poor housing and poor neighbourhoods
- Low educational and vocational attainment of parents
- Very young, unsupported parents
- High residential mobility
- Parent's psychiatric illness
- Marital conflict and family breakdown
- Drug and alcohol abuse
- Tobacco smoking parents
- Low birth weight
- Non-breastfeeding
- Poor parental care.

Practice Review Activity

Developing solutions for nutrition

The purpose of a Practice Review Activity is to assist the practice team to determine the standard of care, identify solutions for improvement and discover whether change did happen as a result of the activity.

Are we doing what we should be doing?
What could we do better?

Appropriate nutrition during childhood plays a part in preventing illness later in life[3] and is essential for maintaining growth and good health. The significant food and nutrition issues for New Zealand children are iron deficiency, calcium intake, obesity, food insecurity, and food safety.

The *Guideline Eating for Healthy Children*[2] recommends that healthy children need enough energy to sustain optimal growth.

Children need to:

- eat many different foods
- eat enough for activity and growth
- eat mini-meals or snacks
- have plenty to drink
- have treat foods now and then
- take part in regular physical activity.

The national goals for nutrition are:

- to reduce the incidence of food-related health disorders by improved nutrition
- to increase participation in regular physical activity.[2]

	TOPIC	ACHIEVING HEALTHY BODY WEIGHT	IRON DEFICIENCY	CALCIUM	FOOD SAFETY
		Achieving a healthy body weight and composition is important in preventing disease and promoting wellbeing. Health risks are associated with being: • overweight, and • underweight. Efforts to achieve a healthy body weight should begin in childhood. While there are no agreed standards for defining the range of healthy body weights in children, the rate and height gain is more significant than the actual size achieved.[5] *(In New Zealand the current height-weight charts are produced by the Royal New Zealand Plunket Society Inc. for children up to five years of age.)*	Iron deficiency is the most common nutrient deficiency found in industrialised countries and is most common in infants and children. Studies show that up to 24% of children in New Zealand may be iron deficient and there is a higher incidence among Maori children.[6] Adequate iron intake is critically important during the early childhood years as it can have a permanent effect on learning and wellbeing	Between 45 and 59% of girls and 30–55% of boys in New Zealand have a calcium intake below 70% of the recommended dietary intake. Calcium has an important role in bone health, particularly in preventing osteoporosis. Adequate calcium intake during childhood and adolescence reduces the severity, delays the onset of osteoporosis and reduces the risk of associated fractures. Calcium is important as bones are in a state of rapid growth and remodelling from birth until about 16 years of age.[3]	The major causes of foodborne illness in children are salmonella, campylobacter, escherichia coli and yersinia. Listeria monocyogenes is rare, but serious when it occurs. Preschool children are those most frequently affected by these organisms.[5] Unsafe handling of food during preparation is the most common cause of food-borne illness. Other risk factors include cross contamination, inadequate personal hygiene and repeated reheating of food.
	PLAN **(Where are we going?)** **Indicators, criteria and standards**	**MANAGEMENT OF HEALTHY BODY WEIGHT** • Obese children may suffer psychological and social pressures. • Risk is determined by genetic and environmental factors. • Parental obesity is a strong predictive factor for childhood obesity.	**IDENTIFYING AND MANAGING IRON DEFICIENT CHILDREN** Iron deficient children: • are sick more often • have increased risk of infection • can have impaired psychological problems • have learning problems • become irritable and tired more often.	**IDENTIFYING CHILDREN WITH A LOW CALCIUM INTAKE** There could be a number of reasons why children might have a low calcium intake. It is important to identify the risk factors as peak bone mass (PBM) is affected by the amount of calcium absorption and the vitamin D status of a child.	**ENCOURAGING PARENT TO MANAGE FOOD SAFETY** The number of cases of notified salmonellosis and campylobacteriosis increase annually but this increase may indicate increased notification rather than increased incidence. These organisms have been identified as causing significant illness in children.[3]
1	Indicator	That food related health disorders are identified and managed effectively.	That iron deficient children are identified and managed effectively.	That the causes of calcium deficiency are identified and managed effectively.	Identify food safety as a risk factor for healthy nutrition.
2	Criteria	**OVERWEIGHT:** • Social functioning • Impaired academic success • Reduced fitness and health • Social/family situation • Excessive television viewing and inactivity • Parenting styles influencing food preferences	• Delayed introduction to iron rich foods • Inadequate nutrition • Reduction in haemoglobin – it is recommended that screening occur in high-risk infants • Reductions in tissue iron • Wellbeing affected • Less resistant to infections	• Measure vitamin D content in urine, faeces or sweat • Identify lactose intolerance • Identify milk allergy • Measure the peak bone mass (PBM) • Identify diet – i.e. allergy restrictions or restrictive diets such as vegan	**PRESENTATION:** • Cramps • Nausea • Diarrhoea • Vomiting • Fever **COMPLICATIONS:** • Dehydration • Meningitis

	• Ability of child to regulate intake • Familial similarities • A preference for fat in foods • Diet composition (imbalance) • High energy food • Low energy food • Level of physical activity.	• Psychological problems: – Shorter attention span – Lower intelligence – Lower cognitive processes – Delayed psychomotor development – Changes in behaviour – Poor school achievement scores.		
3 Standard	Set standards based on the criteria chosen. What do you want to achieve?			
DATA **(Where do you go to find it?)**	**SUGGESTION:** These activities could be completed as a prospective audit and parents interviewed about nutritional issues on an opportunistic basis during the child's consultation. Alternatively a retrospective audit of 20 patient records to determine whether there any suspected nutritional issues that need follow up.			
CHECK	What is the gap between data results and your own expectations?			
ACT	Using the WellChild framework to develop your own solutions to change. **1. HEALTH PROMOTION, PREVENTION AND EARLY INTERVENTION** **Suggestion:** Identify interventions that can make a difference, e.g. extra sources of iron. Identify information and learning needs for children, parents/caregivers and families. Identify nutritional resources. **2. COORDINATION** **Suggestion:** Develop linkages between other providers of nutritional education and support or care, e.g. dietician. **3. INFORMATION STRATEGY** **Suggestion:** Develop a follow-up/recall system for children who have nutritional problems. **4. CHILD HEALTH WORKFORCE DEVELOPMENT** **Suggestion:** Is your practice team 'child friendly'? **5. EVALUATION AND RESEARCH** **Suggestion:** Use information collected to develop quality improvement activities.			
MONITOR	Monitor change and progress: Review your action plan to consider whether new strategies should be put in place to achieve outcomes expected.			

Recommended resource

Ministry of Health. Food and nutrition guidelines for healthy children aged 2–12 years, a background paper. Wellington, NZ. MOH; June 1997.

References

1. The Royal New Zealand College of General Practitioners. WellChild, A general practice response to the WellChild Strategy. Wellington, NZ. RNZCGP; May 2000.
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3. Te Puni Kokiri, The Office of the Commissioner for Children. United Nations Convention on the Rights of the Child. Wellington, New Zealand. Te Puni Kokiri; 1999.
4. The Royal New Zealand College of General Practitioners. General Practice Education Programme – Stage 1, Intensive Clinical Training Programme – Syllabus. Wellington, NZ. RNZCGP; 2000.
5. Baker M. Surveillance data. The New Zealand Public Health Report; 1997; 4:62–3.