# Options for the use of a single standard national growth chart in Australia

Stakeholder engagement summary

## Introduction

In June 2010, Communio Pty Ltd was commissioned by the Department of Health and Ageing to produce a national snapshot of current practices in the use of growth charts with children up to five years of age by key Australian health professional groups.

The project was commissioned following in-principle agreement by the Australian Government (in response to the 2007 *Best Start: Report on the inquiry into the Health Benefits of Breastfeeding*) to consider the merits of adopting a single, evidence-based population level reference for use as a growth monitoring tool, and the need for appropriate education and explanatory materials to ensure growth charts are interpreted appropriately.

A major component of the project was to conduct stakeholder consultations around Australia regarding the use of growth charts, including:

- which growth charts are currently used in each state/territory
- the benefits and limitations associated with each growth chart
- barriers and constraints to the adoption of a single national growth chart
- appropriate mechanisms for introducing a single national growth chart
- adequacy and relevance of current educational and explanatory materials and
- suggestions for the form and content for future educational and explanatory materials.

This document provides a brief synopsis of the views of key stakeholders in relation to the above questions.

### About the consultation

During July and August 2010, 29 face-to-face individual and group interviews and over 20 teleconferences were conducted over approximately four weeks with a range of stakeholders across Australia. Consultation was supplemented by an online survey, completed by 43 participants from five states and territories. The data analysis was facilitated by the use of the software package, *NVivo*, which enabled the project team to identify key themes in the data.

The following stakeholder groups were represented in the consultation for this project (face-to-face, teleconferences and online):

- dietitians
- nutritionists
- nurses and/or midwives
- allied health professionals
- Aboriginal health workers
- health promotion practitioners
- antenatal and postnatal educators
- lactation consultants
- general medical practitioners
- public health medical officers
- specialist clinicians including paediatricians, endocrinologists, neurologists and neonatologists
- academics/researchers
- policy makers and
- program managers.

It is important to note that the choice of participants for the consultation was based on informational considerations, rather than statistical ones. The key consideration was *diversity* of views rather than *number* of stakeholders in each group. Given this fact, it is not possible to provide statistical data that identifies definitively which growth chart is preferred by more stakeholders. This summary aims to both capture common themes that emerged from the consultation, and to represent divergent views from stakeholders where they exist.

# Stakeholder Views

## Charts currently in use

- Centers for Disease Control and Prevention (CDC) 2000 charts were preferred by all state health departments, other than those from the Northern Territory, where the World Health Organization (WHO) 2006 charts were implemented in 2009.
- Other charts, such as the Tanner and Whitehouse from the 1970s, are being used additional to the CDC 2000 charts in particular hospitals.
- Australasian Paediatric Endocrine Group (APEG) charts used in conjunction with CDC 2000 charts by endocrinologists in some hospitals.
- Specialist charts are in use for particular target client groups such as different ethnic groups (Asian babies were often specified); and infants with particular disorders (eg Down Syndrome).

## Benefits and limitations of the CDC and WHO growth charts

The following table outlines the range of benefits and limitations most commonly identified by stakeholders in relation to the CDC 2000 and WHO 2006 growth charts. Individual interviewees, however, often highlighted only one or two specific points from those provided below.

| Benefits | Limitations |
|---|---|
| **WHO 2006 growth charts** | |
| • More useful for identifying obesity<br>• Consistent with policy to support breastfeeding<br>• Have a wider population base than the CDC 2000 charts<br>• More current than the CDC 2000 charts<br>• WHO 2006 charts are the 'gold standard' of growth charts in terms of promoting good health outcomes, including across cultures | • The high proportion of Asian babies in Australia who are 'genetically different from the Caucasian infants in the WHO sample' limit their application<br>• The rapid weight gain demonstrated in the breastfed infant's first 6 months identified on the WHO 2006 charts may not be appropriate for breastfed Aboriginal babies, particularly in remote communities, because failure to reach this standard may be interpreted as neglect<br>• The rapid weight gain demonstrated in the breastfed infant's first 6 months identified on the WHO 2006 charts may discourage mothers who are breastfeeding if their babies are not growing as rapidly as indicated on the charts |
| **CDC 2000 growth charts** | |
| • Ease of liaison and communication with other state government and professional bodies that also support the CDC 2000 charts<br>• Easy accessibility to online training<br>• Applicability to 'the vast majority' of Australian children despite the American data set<br>• Tradition of use by Australian health professionals for the last decade<br>• High degree of 'usability' from a paediatrician's perspective<br>• The belief that the CDC 2000 sample better represents the norm within the Australian population | • The belief that the CDC 2000 charts mask the obesity problem by being a reference based on bigger infants, and implying that this is 'normal' — they are descriptive rather than prescriptive of good health outcomes: 'if a reference is used of an overweight population the norm will continue to rise, with obesity becoming the norm'<br>• Less applicability to the particular 'multicultural mix' of the contemporary Australian population (including Asian, Pacific Islander and Indigenous children, including those in remote communities) |

## Implementation of a single national growth chart

### Support

There was almost unanimous support from participants across all stakeholder groups for a single national growth chart for infants for use at the primary health care and population health level. However, many stakeholders also recognised the need for specialist charts for clinical use and for groups with particular needs or characteristics.

### Barriers to implementation

Many stakeholders acknowledged that there is little consistency in the application of growth charts across professional groups, with advocates for both the WHO 2006 and CDC 2000 charts in terms of implementation as a national standard. Despite this, few stakeholders saw major barriers to implementation of a single chart, if strongly supported by suitable informational and educational material at a range of levels.

### Preference for WHO or CDC charts

For most participants, the key issue is not 'which chart?' but 'how will the preferred chart be supported?' While many participants expressed a preference for either the WHO 2006 or CDC 2000 charts, they had relatively little or no resistance to the alternate chart being recommended for national use if support materials were readily available.

At the same time, strongly polarised views supporting each of the charts also emerged from specific groups and individuals. Use of the WHO 2006 charts was strongly supported by Northern Territory stakeholders, who have undertaken an extensive process over the past two years to determine whether CDC 2000 or WHO 2006 charts better suited their needs. Use of the WHO 2006 charts was also strongly promoted by many breastfeeding advocates in the community, academic and health sectors, and by those with concerns about the increasing incidence of obesity.

However, equally strong views in support of the CDC charts were held by a number of stakeholders. Some of these views were based on the difference in viewing growth charts as a 'reference' compared to a 'standard'. Other concerns with the WHO 2006 charts related to the methodology underpinning the charts — in particular, the exclusion of Asian infants, and the selective screening of the sample. Stakeholders also expressed concerns about the lack of sound evidence on a number of issues, including the extent to which women stop breastfeeding as a result of growth chart results.

### Mechanisms for implementation

A range of mechanisms and communication channels was identified to support the implementation of a single national growth chart:

- Many stakeholders emphasised the importance of disseminating strong and convincing evidence to underpin a national recommendation. This included content at a range of levels, from scientific evidence-based material through to simple one page fact sheets for parents.
- Open, vigorous discussion among health professionals was seen to be critical. The potential role of professional organisations and peak bodies in disseminating information and providing professional development opportunities was highlighted by many stakeholders.
- The availability of high quality support, education and training material was seen to be an important factor in the acceptance of a single recommended national growth chart. While some stakeholders had instruction in the use of growth charts during their clinical training (particularly paediatric specialties), many participants in other fields had limited or no formal professional training in the use of growth charts, and gained much of their knowledge 'on the job'. An issue identified to be of particular concern was the potential for inconsistent measurement and inaccurate recording on either growth chart. Stakeholders saw this as an important focus for information and training regardless of which chart was recommended.
- Participants agreed that support, education and training material should be provided via a range of modalities, including online (resources and self paced mini courses), email, videoconferences, face-to-face workshops and seminars, journal articles and conference presentations. Several people noted the existence of excellent WHO growth chart resources on the United Kingdom Royal College of Paediatrics and Child Health (RCPCH) website (www.rcpch.ac.uk/Research/Growth_Charts_Education_Training_Resources), suggesting that many of these resources would be suitable in their current form or with minor adaptations for the Australian context.

## In summary

- There is very strong support overall for the implementation of a single standardised national growth chart for infants.
- Many stakeholders are willing to be guided in their practice by expert recommendation for either the WHO 2006 or CDC 2000 growth charts, as long as the decision is based on a sound evidence base and comprehensive support and training materials are available to assist in accurate interpretation.