



Australian Government

**Australian Institute of
Health and Welfare**

*Better information and statistics
for better health and wellbeing*

National breastfeeding indicators

Workshop report

July 2011

Australian Institute of Health and Welfare
Canberra

Cat. no. PHE 146

The Australian Institute of Health and Welfare is Australia's national health and welfare statistics and information agency. The Institute's mission is *better information and statistics for better health and wellbeing.*

© Australian Institute of Health and Welfare 2011

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced without prior written permission from the Australian Institute of Health and Welfare. Requests and enquiries concerning reproduction and rights should be directed to the Head of the Communications, Media and Marketing Unit, Australian Institute of Health and Welfare, GPO Box 570, Canberra ACT 2601.

A complete list of the Institute's publications is available from the Institute's website <www.aihw.gov.au>.

ISBN 978-1-74249-189-9

Suggested citation

Australian Institute of Health and Welfare 2011. National breastfeeding indicators: workshop report. Cat. no. PHE 146. Canberra: AIHW.

Australian Institute of Health and Welfare

Board Chair

Hon. Peter Collins, AM, QC

Director

David Kalisch

Any enquiries about or comments on this publication should be directed to:

Communications, Media and Marketing Unit

Australian Institute of Health and Welfare

GPO Box 570

Canberra ACT 2601

Tel: (02) 6244 1032

Email: info@aihw.gov.au

Published by the Australian Institute of Health and Welfare

Please note that there is the potential for minor revisions of data in this report. Please check the online version at <www.aihw.gov.au> for any amendments.

Contents

- Acknowledgments..... iv
- Summary v
- Introduction.....1
- Methodology used to develop core breastfeeding indicators.....5
- Discussion and decisions.....7
 - Draft indicators – definitional and measurement issues7
 - Options for data sources/collection methods.....9
 - Implications for further work.....9
- Agreed core national breastfeeding indicators.....11
- Next steps14
- References15
- Appendix 1: Proposed indicators for discussion at workshop16
- Appendix 2: List of workshop participants.....17

Acknowledgments

Many individuals have provided input to the development of this document:

- Pramod Adhikari, Mark Cooper-Stanbury and Kathleen Graham developed the information paper that informed the discussion at the workshop, and on which this report is largely based. Further contributions were made by Ann Hunt and Shelley Thompson, who were also rapporteurs for the workshop.
- Dr Debra Hector, from the University of Sydney, undertook an extensive review of breastfeeding indicators in 2008, and recommended a round table discussion to seek consensus on national indicators.
- Participants in the national breastfeeding indicator workshop held in Canberra on 8 December 2010 provided valuable input to formulating the conclusions reflected in this paper.
- Dr Norman Swan facilitated the workshop.

The Australian Institute of Health and Welfare (AIHW) acknowledges the Australian Government Department of Health and Ageing (DoHA) for providing funds to conduct the workshop.

Summary

This report presents the outcomes of a consensus workshop held on 8 December 2010 in Canberra, regarding core national breastfeeding indicators.

The purpose of the workshop was to make decisions on a set of breastfeeding indicators that would support the reporting of national breastfeeding trends, and thereby the evaluation of the Australian National Breastfeeding Strategy 2010–2015 and related policies and programs. The workshop arose from a recommendation by Dr Debra Hector from the University of Sydney in her review of breastfeeding indicators conducted on behalf of the Department of Health and Ageing (DoHA) in 2008. Because of the nature of that review – the consultation phase was conducted largely by e-mail – it was not possible to reach consensus on a set of breastfeeding indicators within the review timeframe.

Workshop attendees included those who had participated in the 2008 review; federal, state and territory government employees working in nutrition, epidemiology/health data and maternal health areas; and academics and researchers in child health.

During the workshop, a set of draft breastfeeding indicators was discussed for suitability, stability, simplicity and measurability as core national breastfeeding indicators. After extensive discussion by workshop participants, the following set of indicators was agreed:

- proportion of children ever breastfed (for children aged 0–24 months)
- proportion of children breastfed at each month of age, 0–24 months
- proportion of children exclusively breastfed to each month of age, 0–6 months
- proportion of children predominantly breastfed to each month of age, 0–6 months
- proportion of children receiving soft/semi-solid/solid food at each month of age, 0–12 months
- proportion of children receiving non-human milk or formula at each month of age, 0–12 months.

This agreement on a set of indicators in no way implies commitment of resources to data collection and reporting. However, an agreed set of indicators does provide the platform for consistent collection and reporting should a decision be made to report on these.

Formalisation of the indicator specifications is subject to appropriate information governance processes. Through the Population Health Information Development Group (a working group of the Australian Health Ministers Advisory Council), the AIHW and DoHA have initiated a project to formalise the specifications, leading to the specifications being added to METeOR – the national health metadata registry.

Introduction

The need for a core set of indicators

The need for a core set of breastfeeding indicators is premised on providing robust, consistent, actionable data relevant to the aims and objectives of the Australian National Breastfeeding Strategy 2010–2015 (AHMC 2009).

As summarised in the Strategy document, a large body of Australian and international evidence shows that breastfeeding provides significant value to infants, mothers and society (AHMC 2009).

The Strategy aims to improve the health, nutrition and wellbeing of infants and young children, and the health and wellbeing of mothers, by protecting, promoting, supporting and monitoring breastfeeding.

One of the Strategy's principles is that protection, promotion and support activities are consistently informed by the best available evidence, the percentage of babies breastfed is regularly monitored, and activities are evaluated.

At the time of the workshop in December 2010, Australia did not have an agreed set of national breastfeeding indicators aligned to the Strategy, nor was the collection of breastfeeding data standardised nationally. As well as directly informing progress on the Strategy, a basic set of national breastfeeding indicators will help:

- enable monitoring and reporting of breastfeeding trends
- provide a basis for coordination across national data collections containing information about breastfeeding practices
- promote uniformity in the use of definitions, methods and statistical standards
- inform national policies and guidelines on infant feeding.

Monitoring key aspects of infant feeding practices that are central to national policies and guidelines can provide information on the extent to which practice reflects policies and guidelines. If these data are collected regularly, they can be used to assess whether policy and program changes are required.

Context and recent history

Developments to date

In 1998, the [then] Commonwealth Department of Health and Aged Care commissioned the Australian Food and Nutrition Monitoring Unit (a consortium from the University of Queensland, the University of Sydney and Deakin University) to develop a national food and nutrition monitoring framework from which a food and nutrition monitoring and surveillance system could be developed and sustained. This program of work was able to build on earlier work by the AIHW in the mid-1990s (Lester 1994) which outlined the key components of a national food and nutrition monitoring program and included, as a first

step towards standardising the monitoring of breastfeeding practices in Australia, a report by Webb et al. in 2001.

At the time, the indicators proposed by Webb et al. (2001) were based on the following national policies and recommended breastfeeding practices (NHMRC 1995, 1996):

- exclusive breastfeeding for the first four to six months of life
- timely introduction of complementary feeding (between four to six months)
- continued breastfeeding.

Other breastfeeding-related practices referenced in national policies at the time – for example rooming-in and pacifier use – were not considered further as a basis for population indicators as they were mostly associated with breastfeeding practices within health facilities and also do not directly measure breastfeeding practices.

The Webb et al. (2001) set of proposed national breastfeeding indicators are presented in two groups:

- those based on mothers' recalled practice: per cent ever breastfed; per cent breastfed at each completed month of age to 12 months; and median duration of breastfeeding among 'ever breastfed' children
- those based on reported current practice (previous 24 hours) among infants aged less than six months: per cent exclusively breastfed in the previous 24 hours among infants at each completed month of age to six months; and per cent fully breastfed in the previous 24 hours among infants at each completed month of age to six months.

The authors noted that the data for these indicators were most practically collected through large scale cross-sectional population-based surveys.

The initial intention of Webb et al. (2001) in proposing this set of indicators was that they be tested and refined for suitability prior to being adopted; however, this intention was not realised at the time the indicators were proposed, nor were the indicators formally adopted.

For comparative purposes, the World Health Organization (WHO) developed the following set of breastfeeding indicators which were referred to by Webb et al. (2001) (WHO 1992):

- exclusive breastfeeding rate: the proportion of infants less than four months of age who are exclusively breastfed
- predominant breastfeeding rate: the proportion of infants less than four months of age who are predominantly breastfed
- continued breastfeeding rate (one year): the proportion of children 12 to 15 months of age who are breastfed
- median duration of breastfeeding: the age when 50 per cent of children no longer breastfed.

Optional WHO indicators included ever breastfed rate, timely first suckling rate, and exclusive breastfeeding by the natural mother.

Following publication in 2001 of the Webb et al. report, the National Health and Medical Research Council (NHMRC) released new dietary guidelines for Australia which signalled a change in the key national infant feeding recommendation for the period of exclusive breastfeeding, that is, 'to around six months' (NHMRC 2003), rather than the earlier recommendation of 'four to six months' (NHMRC 1995).

This change in recommendation prompted DoHA to initiate a review and update of the 2001 Webb et al. indicators, and commissioned Dr Debra Hector of the University of Sydney to undertake this task in 2008 (Hector 2008).

As in 2001, the scope of the 2008 review focussed on breastfeeding indicators relevant to national level, cross-sectional surveys. While the consultative review process did not result in a set of agreed national breastfeeding indicators, there was:

- agreement by the majority of stakeholders to a number of indicators
- suggestions for revised and/or new indicators
- recognition that agreement was needed on breastfeeding definitions which aligned with national infant feeding recommendations
- recognition that there are a range of issues relating to the choice of indicators and the chosen survey vehicle, approaches to data analysis and interpretation, and boundary points for age in infancy.

The 2008 Hector review concluded with the recommendation that to progress consensus on a set of indicators, for use in a national infant feeding survey, a 'round table' discussion of key stakeholders was required. The 'round table' discussion was the purpose of this breastfeeding indicators workshop.

Also in 2008, the WHO published a report on indicators for assessing infant and young child feeding practices (WHO 2008). This was based on a five-year development program and finalised in a consensus meeting in Washington, DC, in 2007. The indicators focus on selected food-related aspects of child feeding, amenable to population-level measurement. Core indicators for breastfeeding included:

- early initiation of breastfeeding: proportion of children born in the last 24 months who were put to the breast within one hour of birth
- exclusive breastfeeding under 6 months: proportion of infants 0–5 months of age who are fed exclusively with breastmilk
- continued breastfeeding at 1 year: proportion of children 12–15 months of age who are fed breastmilk
- introduction of solid, semi-solid or soft foods: proportion of infants 6–8 months of age who receive solid, semi-solid or soft foods.

The report explains that the population-level indicators of infant and young child feeding practices are used primarily for assessment, targeting and monitoring and evaluation of progress. Further, the indicators were mainly designed for use in large-scale surveys. The report of the consensus meeting, including the indicator specifications, can be found at www.who.int/nutrition/publications/infantfeeding/9789241596664/en/index.html.

Dietary Guidelines for Infant Feeding

Australia's national policies for infant feeding are based on NHMRC guidelines as set out in *Dietary guidelines for children and adolescents incorporating the infant feeding guidelines for health workers* (NHMRC 2003). The guidelines suitable for the national monitoring of breastfeeding practices are:

- encourage, support and promote exclusive breastfeeding for the first six months of life
- mothers continue breastfeeding their infants until 12 months of age – and beyond if both mother and infant wish

- aim for an initiation rate in excess of 90 per cent and for 80 per cent of infants being breastfed at the age of six months.

Although there have been well-established dietary guidelines for Australian infants and children (Box 1), the lack of agreed national core indicators has meant that data on infant feeding have not been consistently collected and recorded.

Box 1: History of development of dietary guidelines for Australian infants and children

1979	The [then] Commonwealth Department of Health announced a goal to 'increase breastfeeding'. The dietary guideline to 'promote breastfeeding' was subsequently endorsed by NHMRC in June 1982.
1992	NHMRC endorsed the 'Dietary Guidelines for Australians' in June 1992.
1995	NHMRC endorsed dietary guidelines for children and adolescents placing first in the list 'encourage and support breastfeeding'.
2003	NHMRC endorsed revised dietary guidelines for Australian adults, and for children and adolescents (incorporating the infant feeding guidelines for health workers) in April 2003, where it: <ol style="list-style-type: none"> recommended exclusive breastfeeding to around 6 months encouraged mothers to breastfeed their infants until 12 months or beyond recommended an initiation rate greater than 90%, and 80% of infants be breastfed at 6 months of age.
2011	NHMRC is reviewing its entire suite of dietary guidelines. It is anticipated that the revised guidelines will be completed at the end of 2011.

Methodology used to develop core breastfeeding indicators

The indicators agreed at the workshop are the result of nearly 10 years of indicator development process. The process started when Webb et al. (2001) prepared a report titled *Towards a national system for monitoring breastfeeding in Australia*. The purpose of the report was to standardise the reporting and monitoring of breastfeeding practices in Australia. In 2008, DoHA commissioned Dr Debra Hector, from the University of Sydney, to conduct a major review and update of the breastfeeding indicators that Webb et al. recommended in 2001.

In preparation for the workshop, the AIHW further refined and summarised the indicators proposed by Dr Hector. The list of draft core breastfeeding indicators included in the information paper for the indicator workshop is at Appendix 1.

Workshop process

Over 30 experts in the field of infant feeding attended the workshop. Workshop attendees included some of those who had participated in the Hector review of breastfeeding indicators; federal, state and territory government employees working in nutrition, epidemiology/health data and maternal health areas; and academics and researchers in child health (see list of participants at Appendix 2). The workshop was facilitated by Dr Norman Swan, presenter of the *Health report* program on Radio National.

At the workshop, DoHA reiterated its objective of having an agreed core set of national breastfeeding indicators, and how such indicators would support monitoring of the progress of the Australian National Breastfeeding Strategy 2010–2015.

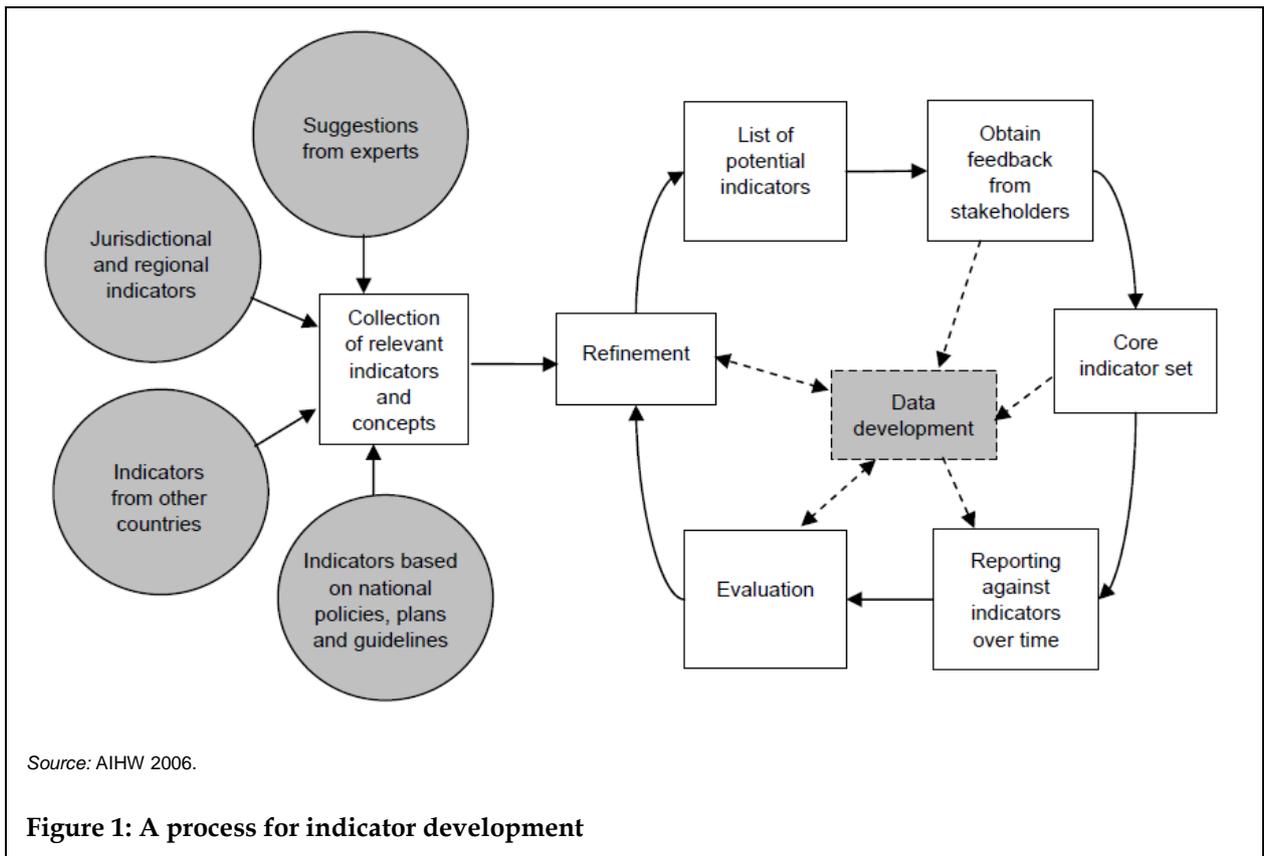
Dr Debra Hector, the author of the 2008 indicators review, highlighted that although a lot of work was done in 2008, because of the nature of the review – that is, largely by e-mail consultation – it had not been possible to reach a consensus, and there had been challenges in agreeing on the phrasing/definition of the indicators.

The AIHW emphasised that indicator development is an iterative process, commencing with a review of relevant policies, strategies, statements and guidelines, and cataloguing of existing indicators. This feeds into a 'refinement' stage, including seeking stakeholder feedback and passing potential indicators across selection criteria. A brief outline of AIHW's process of indicator development was provided (see Figure 1).

The workshop facilitator asked each participant to comment on the draft core indicators in terms of their importance in meeting the objectives of the breastfeeding Strategy, measurability and reliability. This input highlighted three main areas that needed to be examined in the workshop:

- definitional and measurement issues regarding the draft indicators
- options for data sources/collection methods
- implications for further work.

Each of these areas is detailed in the next section.



Source: AIHW 2006.

Figure 1: A process for indicator development

Discussion and decisions

Draft indicators—definitional and measurement issues

Definitions of breastfeeding practices

Participants spent considerable time debating the terms ‘predominantly’, ‘fully’ and ‘exclusively’ breastfed, as described in the Strategy (see Table 1 below).

Table 1: Definitions of breastfeeding practices

Feeding practice	Requires that the infant receive	Allows the infant to receive	Does not allow the infant to receive
Exclusive breastfeeding	Breast milk (including expressed milk)	Oral rehydration salts, drops, syrups (vitamins, minerals, medicines)	Anything else
Predominant or ‘full’ breastfeeding	Breast milk (including expressed milk) as the predominant source of nourishment	Certain liquids (water and water-based drinks, fruit juice), ritual fluids and ORS, drops or syrups (vitamins, minerals, medicines)	Anything else (in particular, non-human milk, food-based fluids)
Complementary feeding or ‘partial’ breastfeeding	Breast milk (including expressed milk)	Anything else: any food or liquid including non-human milk and formula	Not applicable
Any breastfeeding	Any of the above definitions		
Ever breastfed	The infant has been breastfed or received expressed breast milk or colostrum at least once		

Source: AHMC 2009.

Of concern to some participants (and reflected in the Hector review) was the inclusion of fruit juice as allowable for predominant/full breastfeeding. It was acknowledged that this concern partly arises from a debate about when it is *appropriate* to introduce fruit juice, rather than concern about the definition as such.

The AIHW emphasised the value in having an agreed set of working definitions to underpin consistency in measurement and reporting, even if such definitions did not completely correspond to emerging or established nutritional science.

On this basis, the group agreed to accept the definitions as set out in the Strategy.

Age of child

The definition of age of child (such as *at* ‘x’ month versus *to* ‘x’ month) was discussed at some length, including the need for an agreed definition that minimises the potential bias in reporting of breastfeeding prevalence.

The group agreed that concepts that involve having an attribute are best expressed using 'at' (for example, receiving soft or semi-solid food *at* 6 months) and concepts that involve not having an attribute are best expressed using 'to' (for example, exclusively breastfed *to* 6 months).

Given this shared understanding, the draft indicators on exclusive and predominant breastfeeding were re-specified as 'Proportion of children exclusively breastfed *to* each month of age, 0–6 months' and 'Proportion of children predominantly breastfed *to* each month of age, 0–6 months'.

Early initiation

The draft indicator 'Proportion of children who were put to the breast within 1 hour of birth' was considered unreliable as a national indicator because it does not capture information from infants who are born prematurely, or where the mother or the infant had some medical issues. There was general agreement that this indicator is more suitable for use with the Baby Friendly Health Initiative rather than as a breastfeeding indicator.

However, some participants argued that in some jurisdictions, hospitals routinely collect this information and could therefore use this as a breastfeeding indicator. The counter argument was that some hospitals mainly care for premature babies and use of early initiation rates without adjusting for the mix of babies born would distort the data.

Some participants argued that early initiation of breastfeeding is a determinant rather than an indicator of breastfeeding. Further, some participants raised concerns about the terminology 'skin-to-skin contact' after the birth of the child, as this may be inappropriate if the mother or child had some physical limitation.

There was also discussion on the need for a separate indicator to measure the prevalence of prelacteal feeding (that is, feeding with any fluid other than colostrum/breastmilk before breastfeeding is fully established). While it was acknowledged that this is central to the measurement of exclusive breastfeeding, it did not provide significantly more information than already expressed in the 'exclusive breastfeeding to 1 month' indicator.

On balance, the group did not support 'Proportion of children who were put to the breast within 1 hour of birth' being a core breastfeeding indicator.

Non-human milk and formula

Many participants supported the need for an indicator regarding non-human milk and formula, as this contributed to an understanding not only of breastfeeding but also infant nutrition as a whole. The group acknowledged that the inclusion of an indicator measuring feeding of non-human milk or formula is consistent with the reporting requirement for the national breastfeeding Strategy.

There was some debate on whether the indicator should relate specifically to formula, specifically to non-human milk (for example, soy milk), or to both, with the general agreement being that it should relate to both. It was also noted that the current national breastfeeding Strategy generally refers to both together. An alternative term, 'breastmilk substitutes', was also proposed but was not supported by the group.

Hence a new core indicator, 'Proportion of children receiving non-human milk or formula at each month of age, 0–12 months', was agreed.

Options for data sources/collection methods

Some participants supported the indicators being independent of current data availability – that is, subject to available resources, data development and data collection should follow indicator development, rather than indicators being selected to fit current collections.

However, some participants argued that indicators should not be taken in isolation, believing they should be linked to the availability of existing data including administrative data.

There was, however, general agreement that the indicators should be durable, should outlast the finite duration of programs or policies, and should reflect breastfeeding policies and practices.

There was also discussion as to whether longitudinal studies (that is, studies that collect data on the same individuals over the first months/years of life) are better than cross-sectional studies as a data source for reporting breastfeeding indicators. Some participants argued that longitudinal (also termed ‘cohort’) studies can provide appropriate information if the data are collected at short intervals. The majority of participants agreed that recall error cannot be completely eliminated even if data are collected from a cohort or longitudinal study. All agreed that cohort and longitudinal studies are resource intensive, and that properly-designed cross-sectional studies with large samples offer some benefits over small-scale cohort studies.

Some participants suggested collecting breastfeeding information through child health centres or through similar contacts with health care providers so that information on all infants and children could be collected. Some participants also suggested looking at what data collection processes are already in place and that intention to breastfeed on discharge from maternity services may be something that could be cheap, easy and sustainable to collect. The addition of extra questions to measure breastfeeding indicators in already existing data collection regimes was supported by all participants.

There was also strong agreement among attendees that further attention needs to be given to devise and implement appropriate data collection methods that better capture information from disadvantaged groups (including from Indigenous Australians, those residing in remote areas, from culturally diverse groups, and from low socioeconomic groups) in line with indicator development. Further, the group agreed that efforts should be made to ensure that the results of such data collections are disseminated to practitioners and others influencing breastfeeding practices.

Implications for further work

This decision on a set of indicators in no way implies commitment of resources to data collection and reporting. However, an agreed set of indicators does provide the platform for consistent collection and reporting should resources become available.

The AIHW explained jurisdictional obligations under the current National Health Information Agreement arrangements, and that jurisdictions would only be *required* to provide data if the indicators were developed into a National Minimum Data Set and endorsed as such by the National Health Information Standards and Statistics Committee and then the Australian Health Ministers Advisory Council. Until then, the set of core indicators would be instrumental to facilitating more standardised reporting.

Through the Population Health Information Development Group (a working group of the Australian Health Ministers Advisory Council), the AIHW and DoHA have initiated a project to formalise the specifications, leading to the specifications being added to METeOR – the national health metadata registry.

It was also noted that the Australian National Infant Feeding Survey (see Box 2 below) – funded by DoHA – was currently in the data collection phase, and was an opportunity at a national level to test the extent to which the core indicators can be reported from a large cross-sectional survey.

It was further noted that in some jurisdictions, administrative data collection is well advanced, and the use of such data could supplement other data sources.

Box 2: Australian National Infant Feeding Survey

The 2010 Australian National Infant Feeding Survey was a large scale population-based cross-sectional survey implemented on behalf of DoHA by the AIHW. Using questions developed by the Australian Bureau of Statistics – informed by the 2008 Hector review – the survey collected national baseline data on infant feeding practices, including prevalence data on the initiation, duration and intensity of breastfeeding. Mothers and/or carers from a sample of 52,000 infants aged 0–2 years, randomly selected from the Medicare Australia enrolment database, were invited to participate in the survey from November 2010 to mid-February 2011. A larger proportion of the sample was drawn from infants aged 0–6 months of age.

The survey included questions that will enable a range of breastfeeding indicators to be reported, for example, exclusive breastfeeding and full breastfeeding at each month of age, and any breastfeeding to 2 years. The outcomes of the survey will also inform implementation in later years of the Australian National Breastfeeding Strategy 2010–15 and provide baseline data for Strategy evaluation.

A report from the survey will be published by the AIHW in the second half of 2011.

Agreed core national breastfeeding indicators

As described above, workshop participants were each provided with the opportunity to comment and discuss each indicator. Final comment was sought on the overall set of core national breastfeeding indicators to ensure consensus.

After extensive input from workshop participants, the following set of core national breastfeeding indicators was agreed (see more details in Table 2):

- Proportion of children ever breastfed (for children aged 0-24 months)
- Proportion of children breastfed at each month of age, 0-24 months
- Proportion of children exclusively breastfed to each month of age, 0-6 months
- Proportion of children predominantly breastfed to each month of age, 0-6 months
- Proportion of children receiving soft/semi-solid/solid food at each month of age, 0-12 months
- Proportion of children receiving non-human milk or formula at each month of age, 0-12 months.

Table 2: Agreed core national breastfeeding indicators

Indicator	Summary specification	Rationale for inclusion	Rationale for specification	Notes
Proportion of children ever breastfed	Numerator: Children aged 0–24 months that have ever been breastfed Denominator: Children aged 0–24 months	Intuitively straightforward Can be obtained through simple data collections/questions Informs overall objective of the Strategy	Similar to WHO indicator	Ever been breastfed includes colostrum, received expressed milk, received donor milk
Proportion of children breastfed at each month of age, 0–24 months	Numerator: Children aged x months being breastfed Denominator: Children aged x months For each month 0–24 months (that is 25 points in all)	Informs overall objective of the Strategy Data collection and analysis can use natural questions such as 'How old is your child (in months)?' or 'At what age (in months) did your child stop having any breastmilk?'	Informs overall objective of the Strategy as well as continued breastfeeding up to 12 months and beyond	Being breastfed includes colostrum, receiving expressed milk, receiving donor milk; allows any other liquid/food 'Aged x months' means in the x+1 month of life (for example, a child aged 6 months has lived 6 complete months, and is in their 7 th month of life)
Proportion of children exclusively breastfed to each month of age, 0–6 months	Numerator: Children aged x months being exclusively breastfed Denominator: Children aged x months For each month 0–6 months (that is 7 points in all)	Informs compliance with dietary guidelines	Does not include 'in last 24 hours' in the definition because the indicator will likely be calculated using survival methods, based on introduction of other liquids Same data can be used to report 'to' x–1 months, if preferred	Exclusively breastfed includes colostrum, receiving expressed milk, receiving donor milk; allows oral rehydration salts, drops and syrups 'Aged x months' means in the x+1 month of life (for example, a child aged 6 months has lived 6 complete months, and is in their 7 th month of life)

Indicator	Summary specification	Rationale for inclusion	Rationale for specification	Notes
Proportion of children predominantly breastfed to each month of age, 0–6 months	Numerator: Children aged x months being predominantly breastfed Denominator: Children aged x months For each month 0–6 months (that is 7 points in all)	<p>Informs overall objective of the Strategy (which is worded as ‘fully’ breastfed)</p> <p>Together with ‘breastfed’ and ‘exclusively breastfed’ can report on each of the three types of breastfeeding defined in the Strategy</p>	<p>Does not include ‘in last 24 hours’ in the definition because the indicator will likely be calculated using survival methods, based on introduction of other liquids</p> <p>Same data can be used to report ‘to’ x–1 months, if preferred</p>	<p>Predominantly breastfed includes colostrum, receiving expressed milk, receiving donor milk; allows oral rehydration salts, drops and syrups, water and water based drinks, fruit juice</p> <p>‘Aged x months’ means in the x+1 month of life (for example, a child aged 6 months has lived 6 complete months, and is in their 7th month of life)</p>
Proportion of children receiving soft/semi-solid/solid food at each month of age, 0–12 months	Numerator: Children aged x months receiving soft/semi-solid/solid food in the previous 24 hours Denominator: Children aged x months For each month 0–12 months (that is 13 points in all)	<p>Informs overall objective of the Strategy</p> <p>Informs compliance with dietary guidelines</p>	Similar to WHO indicator; age range extended back to 0 months and up to 12 months to capture population-wide practices	‘Aged x months’ means in the x+1 month of life (for example, a child aged 6 months has lived 6 complete months, and is in their 7 th month of life)
Proportion of children receiving non-human milk or formula at each month of age, 0–12 months	Numerator: Children aged x months receiving non-human milk/formula in the previous 24 hours Denominator: Children aged x months For each month 0–12 months (that is 13 points in all)	Informs overall objective of the Strategy	Informs the extent of infant nutrition in addition to breastfeeding	<p>An indicator specifically relevant to liquids and separate to the measurement of solids is necessary and important</p> <p>Allows soy milk, cow’s milk, goat milk, and infant formula products</p>

Next steps

As outlined in Figure 1, agreement on a set of core indicators is an important step in the indicator life cycle. The next step is to report against the indicators over time, subject to resource availability. The AIHW is contributing to this process by managing and reporting on the Australian National Infant Feeding Survey, which should provide data for all of the indicators as specified. A report from the survey, incorporating indicator-based reporting, is due for release in the second half of 2011.

To facilitate standardised collection of data over the longer term, it will be important to standardise the indicator definitions under appropriate governance arrangements. This is undertaken under the auspices of the National Health Information Standards and Statistics Committee. As noted above, through the Population Health Information Development Committee, the AIHW and DoHA have initiated a project to formalise the indicator specifications, which will lead to the specifications being added to METeOR – the national metadata online registry.

Through the Australian National Infant Feeding Survey and other collections designed to collect data on the indicators, there will likely be challenges encountered in reporting on the indicators as specified. This is a natural part of the indicator development life cycle, and will lead to refined indicators and/or improved data collections as resources permit.

References

- AHMC (Australian Health Ministers' Conference) 2009. Australian National Breastfeeding Strategy 2010–2015. Canberra: Commonwealth of Australia.
- AIHW (Australian Institute of Health and Welfare) 2006. National indicators for monitoring osteoarthritis, rheumatoid arthritis and osteoporosis. Cat. no. PHE 77. Canberra: AIHW.
- Hector D 2008 (unpublished). Review and update of the breastfeeding indicators contained in the report 'Towards a national system for monitoring breastfeeding in Australia: recommendations for population indicators, definitions and next steps'. Final report to the Australian Department of Health and Ageing.
- Lester I 1994. Australia's food & nutrition. Canberra: AGPS
- NHMRC (National Health and Medical Research Council) 1992. Dietary guidelines for Australians. Canberra: AGPS.
- NHMRC 1995. Dietary guidelines for children and adolescents. Canberra: NHMRC.
- NHMRC 1996. Infant feeding guidelines for health workers. Canberra: NHMRC.
- NHMRC 2003. Dietary Guidelines for Children and Adolescents in Australia incorporating the Infant Feeding Guidelines for Health Workers. Canberra: AGPS.
- Webb K, Marks G, Adams M, Rutishauser I & Abraham B. 2001. Towards a national system for monitoring breastfeeding in Australia: recommendations for population indicators, definitions and next steps. Canberra: National Food and Nutrition Monitoring Unit.
- WHO (World Health Organization) 1992. Indicators for assessing health facility practices that affect breastfeeding. Report of the Joint WHO/UNICEF Informal Interagency Meeting 9–10 June, WHO/CDR/93.1. Geneva: WHO.
- WHO 2008. Indicators for assessing infant and young child feeding practices – Part 1: Definitions. Viewed 11 November 2010, <<http://www.who.int/nutrition/publications/infantfeeding/9789241596664/en/index.html>> .

Appendix 1: Proposed indicators for discussion at workshop

Table A1: Proposed core national breastfeeding indicators

Indicator	Summary specification
Proportion of children ever breastfed	<i>Numerator:</i> Children aged 0–24 months that have ever been breastfed <i>Denominator:</i> Children aged 0–24 months
Proportion of children breastfed at each month of age, 0–24 months	<i>Numerator:</i> Children aged x months being breastfed <i>Denominator:</i> Children aged x months For each month 0–24 months (that is 25 points in all)
Proportion of children who were put to the breast within 1 hour of birth	<i>Numerator:</i> Children aged 0–24 months that were put to the breast within 1 hour of birth <i>Denominator:</i> Children aged 0–24 months
Proportion of children exclusively breastfed at each month of age, 0–6 months	<i>Numerator:</i> Children aged x months being exclusively breastfed <i>Denominator:</i> Children aged x months For each month 0–6 months (that is 7 points in all)
Proportion of children predominantly breastfed at each month of age, 0–6 months	<i>Numerator:</i> Children aged x months being predominantly breastfed <i>Denominator:</i> Children aged x months For each month 0–6 months (that is 7 points in all)
Proportion of children receiving soft/semi-solid/solid food at each month of age, 0–12 months	<i>Numerator:</i> Children aged x months receiving soft/semi-solid/solid food in the previous 24 hours <i>Denominator:</i> Children aged x months For each month 0–12 months (that is 13 points in all)

Appendix 2: List of workshop participants

Dr Pramod Adhikari
Senior Analyst
Australian Institute of Health and Welfare
ACT

Associate Professor Katie Allen
Group Leader, Gut and Liver Research
Royal Children's Hospital
Victoria

Dr Lisa Amir
Senior Research Fellow
La Trobe University
Victoria

Associate Professor Peter Baghurst
Clinical Lecturer
Women's and Children's Hospital
South Australia

Ms Mary Beneforti
Senior Analyst
Australian Institute of Health and Welfare
ACT

Dr Wendy Brodribb
Senior Lecturer
Discipline of General Practice
University of Queensland
Queensland

Ms Sandra Burgess
Project Officer
ACT Health
ACT

Ms Patricia Carter
Public Health Nutritionist
SA Department of Health
Adelaide

Ms Anne Colahan
Manager
Department of Education and Early
Childhood Development
Victoria

Mr Mark Cooper-Stanbury
Head Population Health
Australian Institute of Health and Welfare
ACT

Associate Professor Susan Donath
Murdoch Children's Research Institute &
University of Melbourne
Department of Paediatrics, Royal
Children's Hospital
Victoria

Ms Louise Freebairn
Senior Officer
ACT Health
ACT

Ms Kathleen Graham
Assistant Director
Nutrition Section
Department of Health and Ageing
ACT

Ms Michelle Harrison
Senior Public Health Nutritionist,
Queensland Health
Queensland

Dr Debra Hector
Research Fellow
School of Public Health, University of
Sydney
New South Wales

Ms Ann Hunt
Senior Nutritionist
Australian Institute of Health and Welfare
ACT

Dr Jennifer James
Senior Lecturer
Program Coordinator
Discipline of Nursing & Midwifery
RMIT University
Victoria

Ms Rachael Lockey
Midwifery Co-Director, Integrated
Maternity Services
Department of Health and Families
Northern Territory

Ms Lisa McGlynn
Head Health Group
Australian Institute of Health and Welfare
ACT

Ms Gwen Moody
Clinical Nurse Consultant
Westmead Hospital
New South Wales

Ms Kate Mortensen
Manager
Lactation Resource Centre
Victoria

Ms Erica Nixon
Director
Nutrition Section
Department of Health and Ageing
ACT

Associate Professor Wendy Oddy
Senior Research Fellow
Telethon Institute of Child Health
Research, University of Western Australia
Western Australia

Ms Toni Ormston
Project Manager Breastfeeding
Department of Education and Early
Childhood Development
Victoria

Dr Gayle Pollard
Senior Epidemiologist
Southern Regional Services
Queensland Health
Queensland

Ms Kate Scanlan
Senior Evaluation and Information Officer
Western Australia

Associate Professor Jane Scott
School of Medicine, Flinders University
South Australia

Ms Judy Seal
Principal Advisor
Public Health Nutrition, Population
Health
Tasmania

Associate Professor Mimi Tang
Royal Children's Hospital
Victoria

Ms Shelley Thompson
Analyst
Australian Institute of Health and Welfare
ACT

Dr Baohui Yang
Manager (A/g)
NSW Health Survey Program
New South Wales

Dr Norman Swan
Workshop facilitator
Producer and presenter of the Health
Report, Radio National
New South Wales