Consensus on the future core public health nutrition functions and competency requirements of public health nutritionists

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The workforce development context

- Workforce development in public health is predicated on understanding:
  - The work required
  - The capacity of the workforce to perform this work (capacity influenced by many factors)
    - Workforce size, organisation, distribution
    - Worker competency
    - Leadership and resources, support etc etc

Core functions: understanding the work of public health nutrition

- Public health nutrition functions have been defined as the work (processes, practices, services and programs) carried out in order to promote health and well-being in populations through nutrition.

- Core functions provide a description of the work necessarily required of public health nutrition practitioners, without which there would be gaps in workforce capacity.

Competencies

- Competency standards provide the architecture for workforce development by codifying the knowledge, skills and attitudes necessary to effectively practice public health nutrition.

- They have a deliberate focus on effective performance in the workplace, ensuring that workforce preparation and continuing professional development not only enhances what practitioners "know", but also that they "know how", can "show how" and "do"

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- *Essential competencies* defined as competencies without which public health nutrition practice effectiveness is limited[0]

Why develop consensus?

- Clarity and consistency within the profession: ambiguity of purpose and practice a key barrier to workforce development and professionalisation

- the knowledge, experience and expectations of various stakeholders need to be considered:
  - Practice exemplars
  - Academics/Educators
  - Employers

Previous consensus work

- This study built on two earlier delphi studies:

  - *Australia*(**2003**): Expert panel of 20 (8 Australian, 12 internationals)
    - Hughes R. Competencies for effective public health nutrition practice: A developing consensus. ***Public Health Nutrition*** 2004; 6:839-847.

  - *European Union* (**2008/9**): *JobNut Project*: Expert panel of 52 EU academics/ practitioners/ employers
    - Jonsdottir S, Hughes R, Thorsdottir I, Yngve A. Consensus on the competencies required for public health nutrition workforce development in Europe – The JobNut project. ***Public Health Nutrition***. *Accepted Jan 2010.[available online]*

- Both informed drafting of *WPHNA Competency Framework 2010 [see www.wphna.org]*

Previous work…..

- Expansive list of knowledge, skills and attitudes (meta-cognition) identified as essential.

- Findings and issues
  - Feasibility of meeting every competency expectation?
  - Complexity of PHN practice/competency
  - Context of practice important
  - Surprising consistency re essential competencies across countries and by stakeholder (academics favour analytics, practitioners favour practice)

Why use the delphi technique?

- Cost effectiveness

- Harness the anonymous ideas and opinions of a range of **experts/stakeholders** in different geographic locations

- Features: 3 rounds of surveys
  - Anonymity
  - Iteration
  - Controlled feedback
  - Statistical aggregation

Methods- 2011 Delphi

- **Purposive sample** :66 Australian and sub-sample of 15 internationals invited

- **Response rates**: 57 panellists completed Rd 1, with hard core of 43 completing all 3 rounds (75% of respondents)- 32 Aust + 11 internationals

- **Round 1**:panellist attributes, core PHN workforce functions, assumptions relating to competencies and essential PHN competencies.

- **Round 2**:essential PHN competencies for public health nutritionist, using iteration from Rd 1.

- **Round 3**: level of competency attainment required to perform **core functions at 3 workforce levels** (district, provincial, state). Panellists rated core functions in terms of **priorities for future workforce preparation and existing workforce performance.**

The expert panel

- Over-representation of academics and consequent focus of practice (towards research and teaching) a reflection of purposive sampling method.

- Panel attribute data indicate it is reasonable to assume panellists meet the expertness assumptions of experience, educational attainment and self-identification.

- 11 Internationals from: Thailand, Finland, Indonesia, Brazil, Scotland, Iran, Canada, United Kingdom, USA

Core functions: The work of PHN

- PHN workforce development should be directed by a clear understanding of what constitutes the work of a public health nutritionist, informed by:
  - analysis of public health nutrition problems,
  - prioritisation of work effort based on intelligence about the most effective interventions, and
  - consideration of the essential work required to effectively intervene

Core functions:

>50% rating as absolutely necessary, without which =gaps

		% shift Rd1-Rd2	CORE Rd2
IM	**Developing strategies to address nutrition issues**	+21	98
IM	**Translating research into public health nutrition practice**	+39	95
A	**Assessing population needs to determine nutrition program and service priorities**	+11	88
CB	**Developing intersectoral partnerships to promote nutrition**	+16	88
CB	**Providing leadership in communities to promote and support effective action on nutrition issues**	+18	85
IM	**Planning community/ population based nutrition interventions**	+26	85
IM	**Promoting optimal nutrition throughout the lifespan**	+11	83
CB	**Accessing resources to support public health nutrition action**	+26	83
A	**Evaluating nutrition interventions**	+31	80
CB	**Developing organisational capacity to participate in and address nutrition issues**	+19	75
A	**Monitoring nutrition service and program delivery**	+17	73

Core functions (cont.)

		% shift Rd1-Rd2	Core
A	Assessing and monitoring the determinants of nutrition and health	+17	73
IM	Implementing nutrition interventions	+22	73
IM	Promoting equal access to healthy food	+21	70
CB	Developing community capacity to participate in and address nutrition issues	+19	68
IM	Addressing misinformation about nutrition	+14	58
A	Assess the impact of public policy on nutrition and health	+14	53
IM	Advocate for food and nutrition related legislation to protect and promote health	+9	53
A	Monitoring and addressing food advertising and marketing practices	+40	50

Core functions:
Attainment by Dreyfus level (Mode)

	District	Provincial	State/ National
Developing strategies to address nutrition issues	Competent [39%]	Proficient [34%]	Proficient [40%]
Translating research into public health nutrition practice	Capable [34%]	Proficient [42%]	Proficient [42%]
Assessing population needs to determine nutrition program and service priorities	Competent [26%]	Proficient [40%]	Expert [37%]
Developing intersectoral partnerships to promote nutrition	Capable [29%]	Proficient [42%]	Expert [42%]
Providing leadership in communities to promote and support effective action on nutrition issues	Competent [50%]	Proficient [53%]	Expert [43%]
Planning community/ population based nutrition interventions	Proficient [26%]	Competent [45%]	Competent [46%]
Promoting optimal nutrition throughout the lifespan	Entry-level [40%]	Competent [34%]	Competent [32%]
Accessing resources to support public health nutrition action	Competent [37%]	Proficient [45%]	Expert [40%]
Evaluating nutrition interventions	Competent [29%]	Proficient [37%]	Proficient [45%]
Developing organisational capacity to participate in and address nutrition issues	Competent [47%]	Proficient [49%]	Expert [45%]

Dreyfus: 1=entry-level, 2= Capable, 3= Competent, 4= Proficient, 5=Expert.

	District	Provincial	State/ National
Monitoring nutrition service and program delivery	Competent [37%]	Competent [47%]	Proficient [34%]
Assessing and monitoring the determinants of nutrition and health	Competent [50%]	Competent [42%]	Competent [26%]
Implementing nutrition interventions	Entry-level [32%]	Competent [45%]	Competent [32%]
Promoting equal access to healthy food	Competent [37%]	Competent [45%]	Expert [37%]
Developing community capacity to participate in and address nutrition issues	Competent [47%]	Competent [50%]	Proficient [45%]
Addressing misinformation about nutrition	Entry-level [31%]	Competent [47%]	Expert [32%]
Assess the impact of public policy on nutrition and health	Proficient [29%]	Proficient [53%]	Expert [63%]
Advocate for food and nutrition related legislation to protect and promote health	Capable [26%]	Proficient [37%]	Expert [63%]
Monitoring and addressing food advertising and marketing practices	Competent [26%]	Competent [50%]	Competent [32%]

There seems to be an expectation the level of competency attainment increases as level of practice increases (i.e. from district up to state level).

State and national levels of practice appear to require expert level competencies to perform many core functions at that level.

Assumptions about competencies-90% + agreement

- Public health nutrition practice is public health practice that addresses food and nutrition issues.

- Public Health Nutrition differs from Dietetics in that it deals with population based and preventive nutrition interventions rather than curative treatment for individuals.

- Generic public health competency frameworks inadequately represent the nutrition specific competency requirements for specialised public health nutrition practice. They do however, codify many of the core competencies needed.

- A PHN specific competency framework **is needed to specifically inform PHN workforce** development which is aligned with and fuses public health with nutrition competencies.

- These competency standards should **codify the minimum baseline** set of competencies required for effective public health nutrition practice, irrespective of practice context.

- **Different tiers of the workforce** will require different levels of competency, depending on roles, responsibilities and jurisdictions.

- There are a **core set of competencies** consistently required for effective PHN practice irrespective of jurisdiction or context

- Competencies should be **aspirational**, reflect the work needed rather than reinforce the practices (work) that currently exists.

Consensus on competencies

- From a total of 180 competency elements rated across 2 delphi rounds, 120 rated as essential by >50% panellists (66% of original list)
- Response shifts **all** towards strengthening agreement
- Reinforces importance of competencies relating to:
  - Intervention management
  - Capacity building
  - Analytics (assesment, research , evaluation)
  - Knowledge of nutrition

- Marginal differences in response distributions between Australian and international panellists
- Face validation of WPHNA competency framework

www.wphna.org

Competency building blocks framework

PRACTICE	Needs assessment, monitoring and surveillance	Capacity building	Intervention Management		DOES
CROSS-CUTTING	Management	Leadership	Communication	Professional	SHOWS HOW
CRITICAL	Nutrition Sciences	Analytics	Public Health Systems	Food & Nutrition Systems	Nutrition Education	KNOWS HOW
ENABLING	Biological Sciences	Environmental Sciences	Behavioural Sciences	Social Sciences	Political Sciences	Economics	KNOWS

Implications for workforce development

- Confirms the complexity of PHN competency expectations....can these be developed in 3 year undergraduate degree???

- Essential competencies can provide a basis for curriculum review and L&T strategy

- Basis for developing workforce development systems:
  - Certification and/or accreditation
  - Job description templates (workforce design and recruitment)
  - Continuing professional development

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