



UNIVERSITY  
OF WOLLONGONG  
AUSTRALIA

University of Wollongong  
Research Online

---

Australian Health Services Research Institute

Faculty of Business

---

2014

# Development of AN-SNAP version 4: activity based funding classification workshop

Janette P. Green

*University of Wollongong, [janette@uow.edu.au](mailto:janette@uow.edu.au)*

Robert Gordon

*University of Wollongong, [robg@uow.edu.au](mailto:robg@uow.edu.au)*

---

## Publication Details

J. Green & R. Gordon "Development of AN-SNAP version 4: activity based funding classification workshop", Activity Based Funding Conference, Melbourne Convention and Exhibition Centre, 23-25 Jun 2014, (2014)

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library:  
[research-pubs@uow.edu.au](mailto:research-pubs@uow.edu.au)

---

# Development of AN-SNAP version 4: activity based funding classification workshop

## **Abstract**

Project aims and objectives

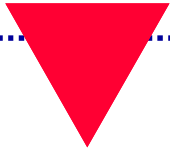
- To develop a fully revised and contemporary version of the AN-SNAP classification suitable for implementing as a national sub-acute and non-acute ABF model
- To ensure that the revised classification is acceptable across the sub-acute sector including States and Territories

## **Keywords**

activity, 4, version, snap, classification, funding, workshop, development

## **Publication Details**

J. Green & R. Gordon "Development of AN-SNAP version 4: activity based funding classification workshop", Activity Based Funding Conference, Melbourne Convention and Exhibition Centre, 23-25 Jun 2014, (2014)



# Development of AN-SNAP Version 4:

## Activity Based Funding Classification Workshop

Associate Professor Janette Green  
Associate Professor Rob Gordon

Centre for Health Service Development (CHSD)  
University of Wollongong  
23 June 2014

# Project aims and objectives

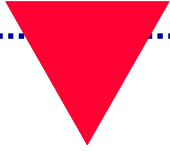
- ◆ To develop a fully revised and contemporary version of the AN-SNAP classification suitable for implementing as a national sub-acute and non-acute ABF model
- ◆ To ensure that the revised classification is acceptable across the sub-acute sector including States and Territories

# Conceptual framework

- ◆ Within the context of:
  - the national health reform agenda, and
  - the changing clinical profile of sub-acute patients
- ◆ Three related sets of activities are being undertaken:
  - a review of previous and current work
  - an extensive stakeholder consultation process
  - application of recognised classification development and statistical analysis methods

# Sub-acute cost drivers

- ◆ We know that cost drivers in the sub-acute sector are different from the acute sector and involve factors such as:
  - Rehabilitation: function, impairment, age, co-morbidities, complications, psychosocial environment,
  - Palliative care: stage of illness (phase of care), function, age, and acute complications;
  - GEM: function, acute medical complications, co-morbidities, psychosocial environment
  - Psychogeriatrics: function, behaviour, risk factors



# Development of AN-SNAP V4

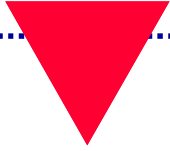
# Project comprises the three major elements

- ◆ A targeted review of previous work including AN-SNAP V3
- ◆ A multi-pronged stakeholder engagement strategy
- ◆ A series of statistical analyses using clinical, activity and financial data obtained from a range of sources, including projects recently undertaken on behalf of IHPA.
- ◆ To be completed in October 2014



# Core project activities

| No | Activity   |
|----|--|
| 1  | Activate project, implement and maintain project governance arrangements   |
| 2  | Develop detailed work plan   |
| 3  | Review previous work undertaken in this field                              |
| 4  | Produce classification development framework principles                    |
| 5  | Establish and implement stakeholder engagement strategy                    |
| 6  | Source available sub-acute and non-acute clinical, activity and cost data  |
| 7  | Undertake data preparation and preliminary analysis                        |
| 8  | Produce preliminary AN-SNAP V4 classes                                     |
| 8a | Produce preliminary overnight and ambulatory paediatric AN-SNAP V4 classes |
| 8b | Produce preliminary adult overnight AN-SNAP V4 classes                     |
| 8c | Produce preliminary adult ambulatory AN-SNAP V4 classes                    |
| 9  | Produce AN-SNAP V4 classification  |
| 10 | Submit interim report and public consultation paper                        |
| 11 | Deliver draft final report and presentation to IHPA                        |
| 12 | Deliver final project report and user documentation                        |



Methodological and clinical issues

# Data availability

- ◆ Data from a range of sources are being synthesised including:
  - Jurisdictional sub-acute data collections
  - NHCDC sub-acute data
  - Admitted patient collection morbidity data for sub-acute episodes
  - Cost (and available clinical) data collected in 2013 by Ernst and Young study
  - Other available episode level costed sub-acute data (including data held by CHSD)
  - Non-admitted data collection, including service events for sub-acute type Tier 2 clinics
  - PCOC and AROC data

# Challenges with the data

- ◆ In general –
  - To measure the things that drive costs,
  - To have these measures available in a costed dataset
  
- ◆ For this project .... a rigorous methodology to maximise the utility of all available data is being employed

# Some other key project issues

- ◆ Understanding sub-acute cost drivers
  - reviewing variables in the current version
  - PLUS testing some new variables for inclusion
  - eg should diagnosis play a role?
  - what is it about cognition?
  
- ◆ Incorporating changing clinical practice

# Changes in clinical practice and cost drivers

- ◆ We know that the following types of factors have influenced the delivery and cost of sub-acute services in recent years
  - Clinical characteristics of patients
  - New models of care / treatment protocols
  - Structural / organisational issues
  - Length of stay related factors
  - Patient / family / carer expectations

# Plus...

- ◆ Additional issues being given particular focus:
  - the interface between acute and sub-acute care
  - the interface between sub- and non-acute care types
  - reviewing ambulatory AN-SNAP classes
  - developing paediatric AN-SNAP classes

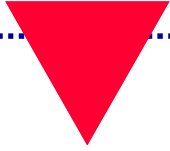
# Solutions for these issues

- ◆ May be found in the new classification
- ◆ May be managed via business rules
- ◆ May be managed via a funding model

OR

- ◆ May be some years off





# Options being considered in the statistical analysis

To improve the performance of the  
classification

# Palliative Care

- ◆ Modifying age and RUG/ADL splits
- ◆ The impact of incorporating weighted RUG-ADL scores
- ◆ The use of diagnostic clusters as a splitting variable
- ◆ Additional variables, eg palliative care problem severity score

# Rehabilitation

- ◆ Modifying FIM™ splits for several impairment categories
- ◆ Incorporating clusters of ICD 10 diagnosis codes in some impairments
- ◆ Introducing a weighting for individual FIM items
- ◆ Special focus on the reconditioning impairment

# GEM

- ◆ An initial split based on FIM motor score and a second split based on diagnosis clusters
- ◆ Age and FIM cognition - perhaps will not be included as splitting variables
- ◆ Additional measures that have been suggested – SNMSE, HoNOS 65+, other measure of cognitive or behavioural issues for future versions

# Psychogeriatrics

- ◆ Limited availability of data will preclude detailed analysis for this care type
- ◆ Likely to remove two current AN-SNAP classes as are no longer relevant in clinical practice
- ◆ Overlap with mental health classification
- ◆ Overlap with GEM care type

# Maintenance

- ◆ Likely to change the care type name to 'non-acute'
- ◆ Reviewing current 'maintenance care types' to better reflect current clinical practice
- ◆ Check for RUG-ADL and/or age splits

# Paediatrics

- ◆ Data!!!
- ◆ Rehabilitation: test the development of paediatric classes with an initial age split based on three age groups: 0-3, 3-12 and >12 followed by a secondary split based on impairment group
- ◆ Palliative care: test the development of paediatric classes with an initial age split based on three age groups: 0-3, 3-12 and >12 followed by a secondary split based on cognitive impairment, medical complexity and function or impairment groups

# Ambulatory AN-SNAP classes

- ◆ Overlap with classification based on Tier 2 Clinics
- ◆ Data availability
- ◆ Feedback from clinical panels
  - Mutlidisciplinary vs single discipline
  - Episode based?
  - What about same day admitted?
  - Ambulatory maintenance no longer happens