



ACP CRIO

Advance Care Planning Collaborative Research & Innovation Opportunities Network

# Identification and implementation of indicators to monitor successful uptake of Advance Care Planning in Alberta, Canada: a Delphi study

Konrad Fassbender, PhD, University of Alberta; Alex Potapov, PhD, University of Alberta; Patricia Biondo, PhD, University of Calgary; Malcena Stalker, BSc, University of Alberta; Jayna Holroyd-Leduc, MD, FRCPC, University of Calgary; Jessica Simon, MD, FRCPC, University of Calgary; Neil Hagen, MD, FRCPC, University of Calgary  
on behalf of the Advance Care Planning CRIO Program, CANADA

## BACKGROUND & RATIONALE

- In April 2014, the provincial health system in Alberta, Canada, implemented a province-wide policy for Advance Care Planning (ACP) and Goals of Care Designation (GCD)
- ACP/GCD provides a formal way to register a capable patient's opinion on care details for use when the patient is incapable of communicating his/her wishes
- How to optimally implement widespread uptake of a formalized ACP/GCD framework across a large population (~4 million) and throughout a complex, multi-sector health system is not well understood

## OBJECTIVE

To identify and develop *performance indicators* for use in an ACP/GCD dashboard, to monitor and improve health system performance in ACP/GCD completion

## METHODS

- Using a Delphi consensus-based approach, invited panelists (n=149 across all Delphi rounds) evaluated and refined potential ACP/GCD indicators through a combination of face-to-face meetings and online surveys

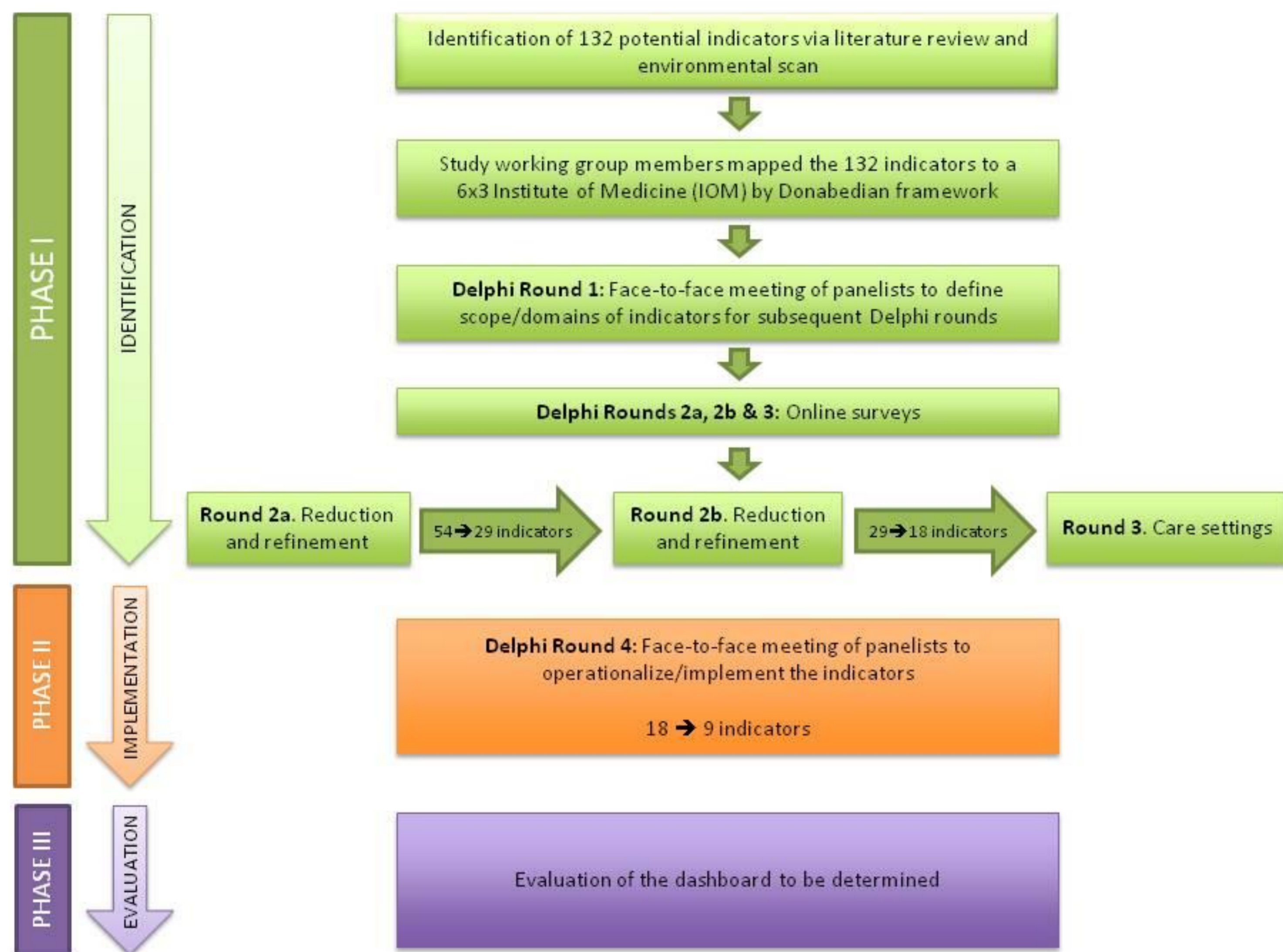


Figure 1. Study flowchart of procedures and processes

## RESULTS

### Delphi Round 1:

- Panelists (n=12) endorsed adoption of the 6x3 Institute of Medicine (IOM) x Donabedian framework to guide subsequent Delphi rounds
- There was strong consensus to identify indicators for each of the 18 IOM x Donabedian domains, allowing for one indicator to represent more than one domain
- 54 indicators that mapped to the IOM x Donabedian framework with the highest level of agreement were put forth to Delphi Round 2a

## RESULTS CONT'D

### Delphi Rounds 2a and 2b (reduction and refinement):

- Consensus (80%) was reached to retain **18 unique indicators** mapping to 14 IOM x Donabedian domains

### Delphi Round 3 (care settings):

- All settings of care were represented by the set of 18 indicators

### Delphi Round 4 (implementation):

- Panelists (n=19) operationalized **nine indicators** into a measurable format (**Table 1**), covering 11 of the 18 IOM x Donabedian domains (**Table 2**)
- Definitions were standardized and data sources defined, tested and substantiated

Table 1. ACP/GCD indicators (n=9) operationalized into measurable format after Delphi Round 4

Indicator	Data source
1. Percentage of healthcare providers who have completed the AHS Advance Care Planning: Goals of Care Designations - Adult eLearning module	Administrative data
2. Percentage of charts with GCD order(s) in the Green Sleeve	Chart audit
3. Percentage of patients with a GCD order anywhere in the health record	Chart audit
4. Percentage of patients with a completed ACP/GCD tracking record	Chart audit
5. Percentage of patients with a Personal Directive in the health record	Chart audit
6. Percentage of patients and/or alternate decision-makers who have had an advance care planning conversation with a health care provider	Telephone survey
7. Percentage of deceased patients who die having had an M1, M2, C1 or C2 GCD in the week prior to their death, who received resuscitative or life-support interventions in advance of death	Administrative data, chart audit
8. Percentage of deceased long term care and home care patients with a C2 GCD who were transferred to acute care and/or ICU	Administrative data, chart audit
9. Percentage of patients or family members/friends satisfied with ACP conversation	Telephone survey

Table 2. ACP/GCD indicators #1-9 mapped to the 6x3 IOM x Donabedian framework

	Structure	Process	Outcome
Timely	#2		
Safe		#4	#7
Patient-centered		#6	#9
Effective	#1	#3, #5, #6	#7
Efficient	#2	#4	#8
Equity			

## CONCLUSIONS

- Nine ACP/GCD indicators** have been operationalized for implementation within a web-based dashboard.
- These indicators describe a strategy to **standardize evaluation and audit** for ACP and GCD policies, and provide a systematic basis for reporting ACP/GCD implementation.
- The planned introduction of electronic medical records across Alberta will considerably reduce measurement costs.
- All 3 Donabedian and 5 of the 6 IOM domains are covered in the final 9 indicators, supporting development of a balanced panel of indicators.

## CONTACT

Konrad Fassbender  
Co-Lead, Advance Care Planning CRIO Program  
[Konrad.Fassbender@ualberta.ca](mailto:Konrad.Fassbender@ualberta.ca)  
[www.acpcrrio.org](http://www.acpcrrio.org)

## ACKNOWLEDGEMENTS

We thank all Delphi panelists for participating in the study. Funding was provided by Alberta Innovates Health Solutions (AIHS) Collaborative Research and Innovation Opportunities Program Grant #201201157.