



**Singapore Healthcare  
Management 2015**

# MEASURING



# IN ACADEMIC MEDICINE

SingHealth **DUKE-NUS**  
ACADEMIC MEDICAL CENTRE

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## INTRODUCTION

Academic Medical Centres (AMCs) have a tripartite mission – delivering excellent healthcare for patients and also concurrently undertaking education and research to advance the body of knowledge to improve healthcare over time.

There are keen interests of measuring the academic output of SingHealth Duke-NUS to gauge progress of this relatively young AMC.

## OBJECTIVES

The aims of this study are:

- 1 to examine the principles and challenges of measuring success in academic medicine; and
- 2 determine the metrics and matrices of successful performance for an academic department (or in the case of SingHealth Duke-NUS AMC, Academic Clinical Programmes (ACP)).

## METHODOLOGY

- 1 Preliminary discussions with domain leaders (in research, education and clinical) were held.
- 2 Concurrently, literature search and Internet search on the various metrics use by other AMCs to measure their success were carried out.
- 3 All metrics of success currently used in the SingHealth Duke-NUS AMC – namely (a) SingHealth head office and all institutions in the SingHealth cluster, and (b) Duke-NUS Graduate Medical School were collated and compared.
- 4 Focus Group Discussions (FGDs) were held at the Academic Leaders' Forum on 14 March 2015. A total of 102 academic leaders attended and participated in the FGDs. There were 4 FGDs, i.e. one each for (1) the Academic Chairs; (2) the Vice Chairs, Research; (3) the Vice Chairs, Education; & (4) the Vice Chairs, Clinical. Senior leaders of the respective domains facilitated each of the FGDs.
- 5 Prior to the FGDs, two academic leaders from another overseas AMC shared their experiences and perspectives.
- 6 All participants re-gathered after their FGD to present and deliberate findings from all 4 FGDs in a townhall discussion.

**Consult**

**Compare &  
Contrast**

**Confer**

**Communicate**

**Consolidate**



SingHealth Duke-NUS Academic Leaders' Forum – 14 March 2015

## RESULTS

- 1 Despite pervasive acknowledgement of the importance to measure academic success of academic clinical departments (or ACPs in SingHealth Duke-NUS AMC), no helpful widely accepted metrics exist. From Internet searches, we found no commonality or norm by which AMCs measure academic success. While there was a multitude of publications on performance indicators, there was no consistency or common minimal dataset of Key Performance Indicators (or KPIs).
- 2 Challenges were noted from the FGDs. There is differing difficulty in measuring ACP successes across different domains and appropriate matrices should be developed. For example, it is relatively easier to measure research successes (such as in terms of number & quantum of research grants); while it is more difficult to measure education outcomes prospectively.
- 3 Consensus from the FGDs that:
  - ❖ there can be a common metrics and matrices to measure success across all ACPs;

### Examples of Academic Key Performance Indicators (KPIs)

#### Research (KPIs Achieved) by calendar year

- Number of Clinician-Scientists (i.e. Cluster & National level CSs respectively)
- Number of peer-reviewed publications (i.e. with Journal Impact Factor (JIF)  $\geq 2$  and JIF  $< 2$ )
- Amount of competitive research grant secured (i.e. Internal, External, and Commercial grants)

#### Education (KPIs Achieved)

- Residency – First Choice for Programmes and Sponsoring Institution by year of application
- Undergraduate – Medical Students' Score of Educators/Teachers by academic year

#### AM Philanthropic Funds (External Donations)

- ❖ there should be individualisation of metrics for each ACP according to its pre-determined strategic goals, objectives and areas of focus; and
- ❖ benchmarks to measure an ACP success should be set in a way that is compatible with maturity of the ACP to be effective.

- 4 Inputs received from a voluntary Post-Event Survey about the FGDs were positive. 97.4% of the survey respondents felt that the FGDs were "helpful in providing insights to the metrics that can be applied to SingHealth Duke-NUS ACPs".



2 photographs  
of the FGDs



## CONCLUSION

- 1 The FGDs were an effective platform for academic leaders to discuss principles, challenges and issues of measuring academic success.
- 2 The FGDs resulted in a common understanding in the SingHealth Duke-NUS AMC of the principles, considerations and issues in measuring success in the ACPs.