

# Balancing Allied Health Professionals' Workload for Optimal Patient Outcomes and Staff Wellness

Vincent K.P. Chua, MSc, Allied Health Specialties, KK Women's and Children's Hospital  
Jasper W.K. Tong, PhD, Allied Health Office, KK Women's and Children's Hospital

## 1 Introduction

Academic Medical Centres (AMC) pursue multiple goals simultaneously. These include quality and affordable care to patients, operational excellence and sustainable practices, research, education, and staff wellness. Developing capabilities to monitor and manage staff workload are essential for optimizing patient care and staff wellness.

Monitoring and managing nursing workload are well documented but limited literature is found for Allied Health Professionals (AHPs). The complication arises when accounting for indirect efforts in patient care. To further complicate the matter, AHPs are a diverse group with different roles.

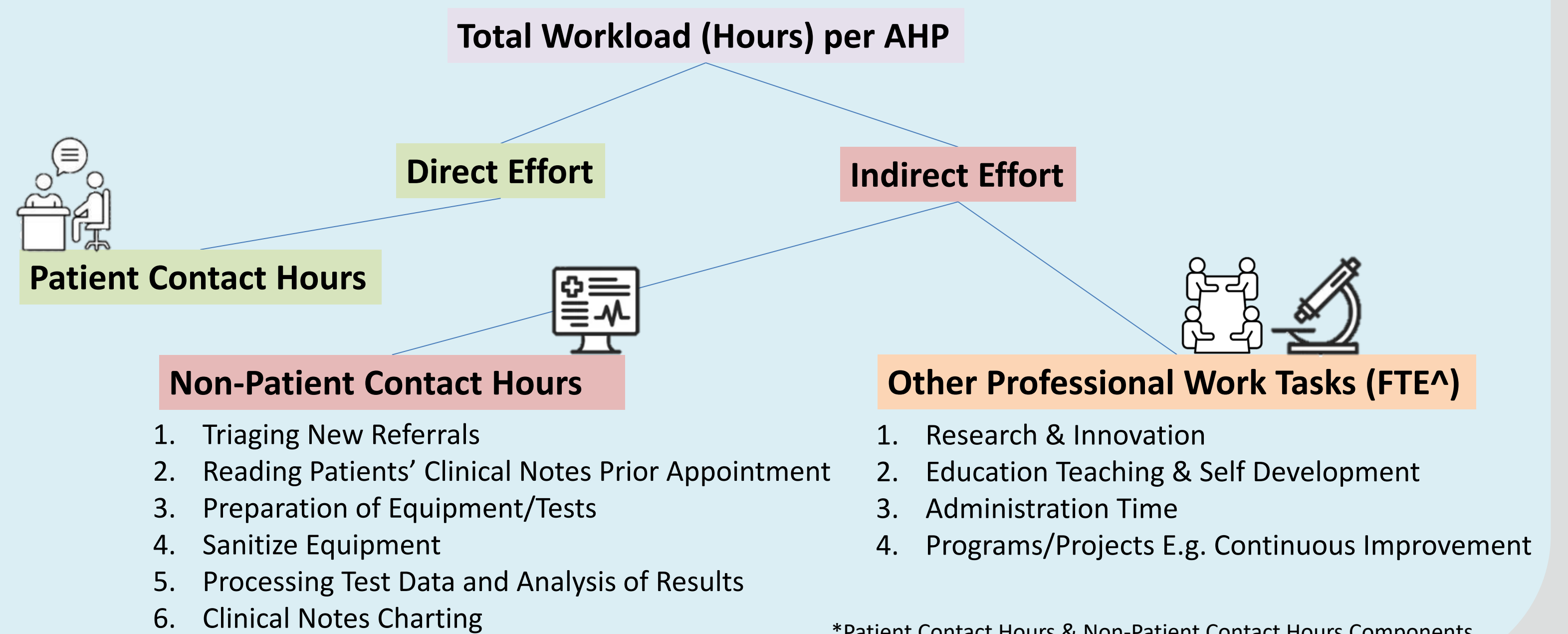
## 2 Aims

Tracking workload using current digital methods such as the Electronic Medical Record system would require large capital investment for enhancement and subsequent operational cost to maintain the system. On the other extreme, manual tracking would be time consuming and onerous for staff. In addition, personal bias and recording errors such as data omission may be more prevalent in manual data collation. We present a cost-effective method to monitor and manage AHPs workload for informed decision making.

## 3 Methods

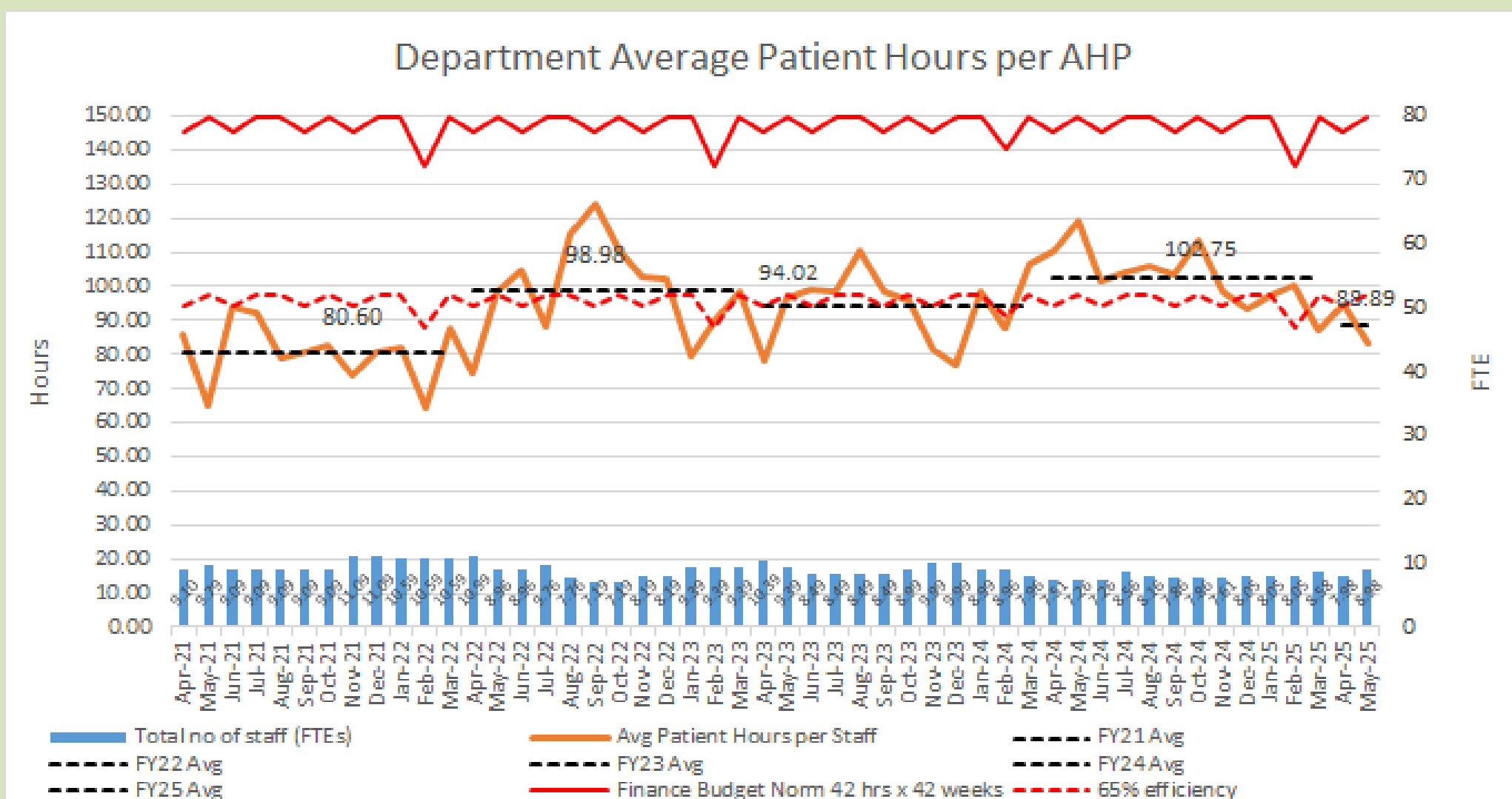
Patient Contact Hour is the amount of time AHPs spent with the patient. This is embedded in the charge codes (with service duration) of hospital billing system and can be easily extracted as a report. As the Non-Patient Contact Hour differs by the service rendered, it is added to the service duration of respective service code.

$$\text{Average Patient Hours}^* \text{ per AHP} = \frac{\sum_1^n \text{Service Code}_n \times [\text{Service Duration (Hours)} + \text{Non-Patient Contact Hours}]}{[\text{Department FTE}^\wedge - \text{Other Professional Work Tasks (FTE}^\wedge)]}$$

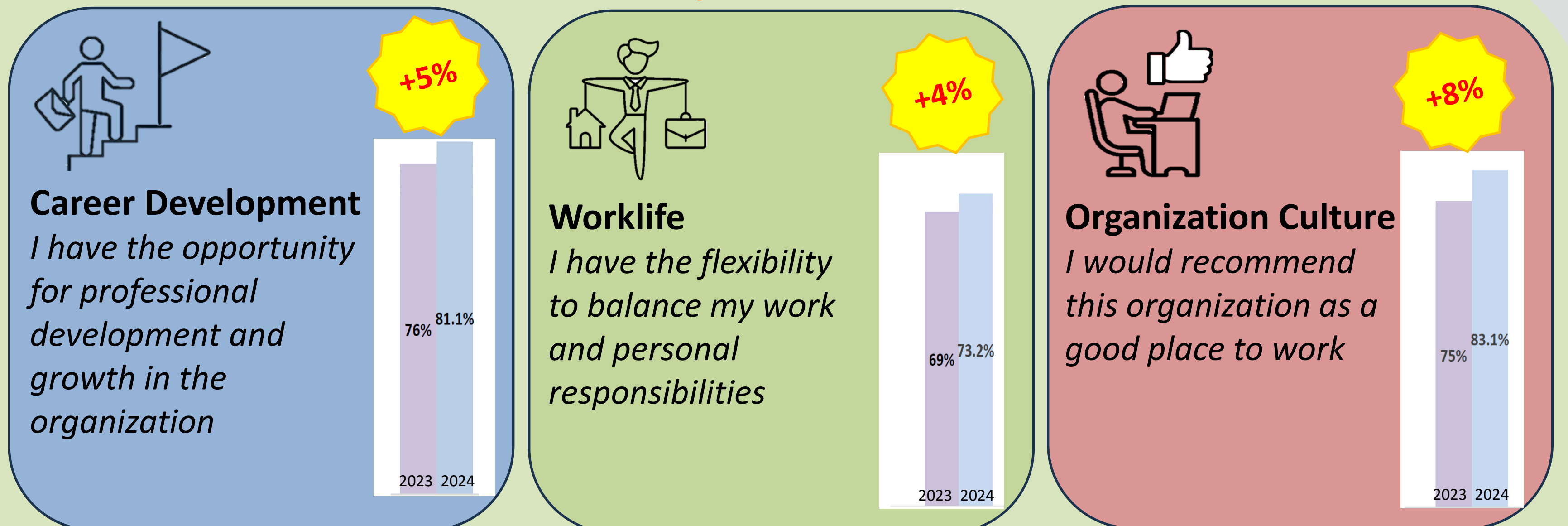


## 4 Results

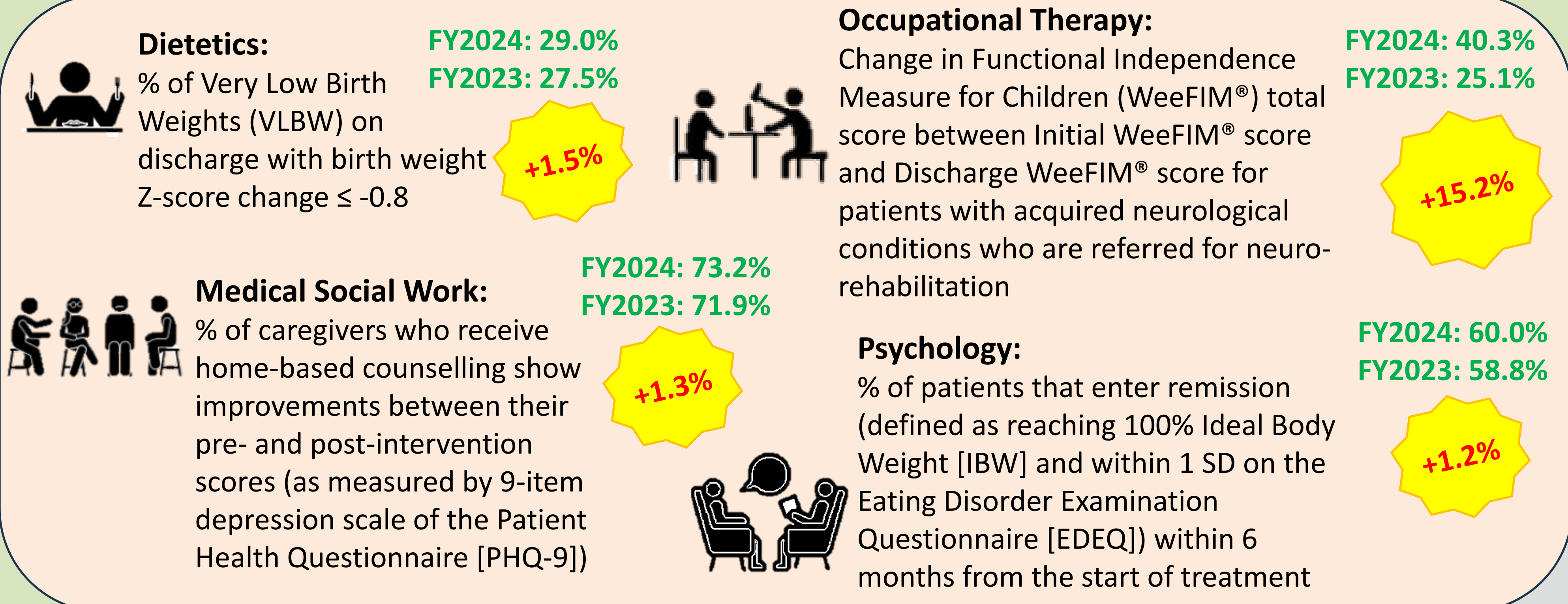
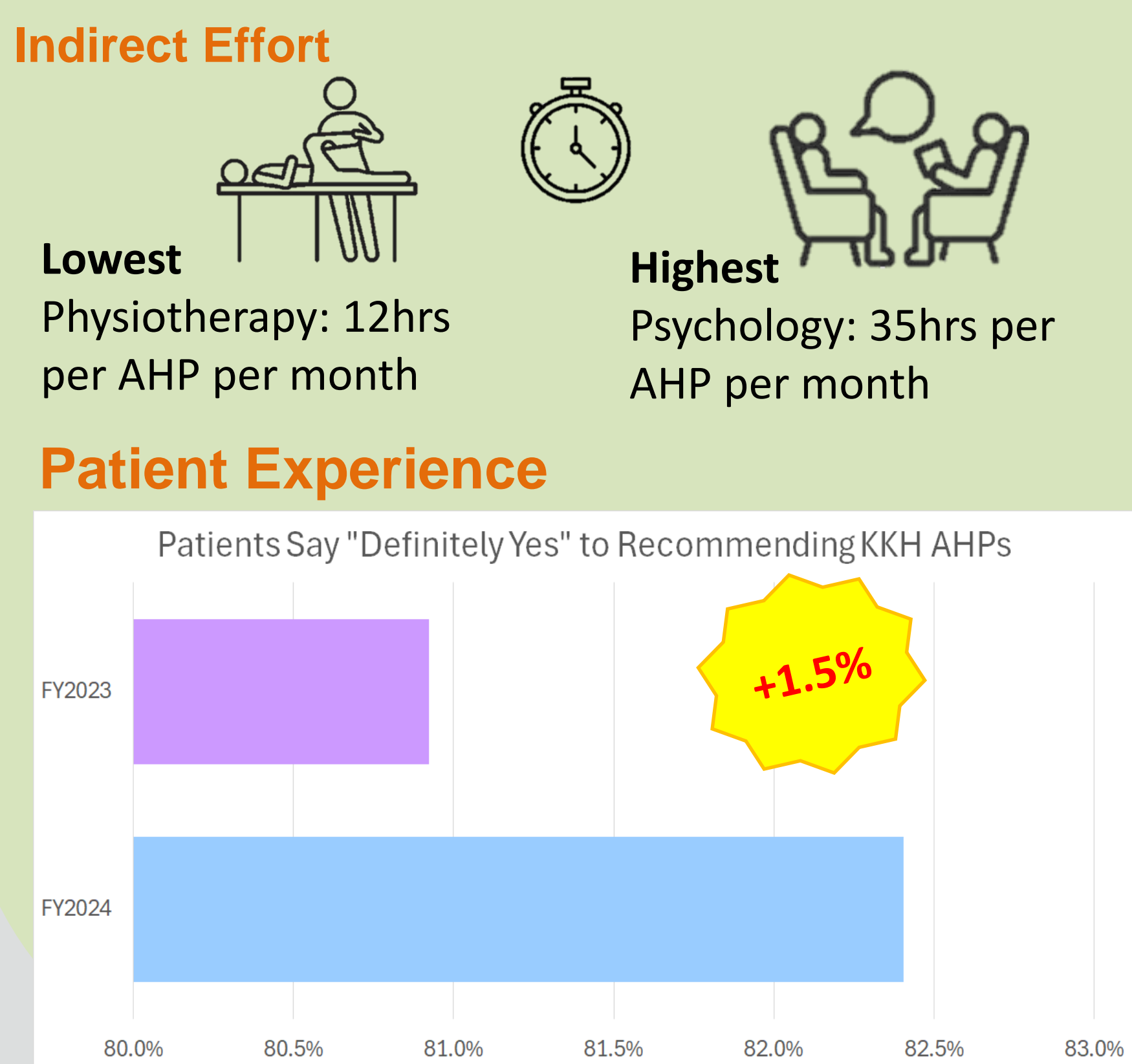
The Average Patient Hours per AHP is expressed as a percentage of the theoretical maximum monthly working hours of a staff.



### 2024 Staff Wellness Pulse Survey Result



### Patient Outcomes



## 5 Discussion

We found a wide variation across all AHP specialties on their monthly average patient hours per AHP. The time spent on indirect effort could be as much as the direct effort for some AHPs. This capability provides a visual representation for Allied Health leaders to act towards optimizing workload to AHP ratio. As AHP leaders observe their department's monthly average patient hours per AHP, they will moderate workload and AHP schedule accordingly so that staff wellness are not compromised. And this would in turn improve patient outcomes and experience.

## 6 Conclusions

Our graphical representation of AHPs' workload provides a retrospective insight to the workload achieved by each AHP. It is not meant to be used as a predictive model to forecast workload to AHP ratio. Nevertheless, it satisfies the aim of providing a cost-effective method to monitor and manage AHPs workload for informed decision making.