



# Medibank facilitates a sustainable healthcare system

The economic case of Medibank's short-stay, no-gap program

Summary report

July 2022

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# Executive Summary

Medibank's short-stay, no-gap model is an example of Medibank acting as an agent of change – providing customers with more affordable care options and reducing pressure on the hospital system, without compromising treatment outcomes.

## Our analysis of Medibank's short-stay, no-gap pilot program found:

### Patient satisfaction

**78% of surveyed participants were very favourable** toward the short-stay, no-gap program, highlighting the **seamless process** and **no out-of-pocket expenses**.

### Patient outcomes

There is **no significant difference in the probability of having an adverse outcome** between the short-stay, no-gap pilot program participants and patients receiving conventional care, when controlling for patient's characteristics.

### Potential savings

#### Length of stay

Across Australia, the short-stay, no-gap pilot program **reduced length of stay (LOS)** following a hip and knee replacement with minor complexities **by 50%**.

#### Bed days

Expansion of the program across the hospital system (both public and private) geographically, and to include other procedures such as hernia and cholecystectomy, **would save 23,000 bed days in 2023 and 72,000 bed days in 2030** under a conservative assumption of 10% adoption rate in eligible cases. By 2030, half of the number of bed-days saved are from hip and knee replacements, and the remaining savings are from the procedures on the expansion pathway.

#### Out-of-pocket costs

Under Medibank's short-stay, no-gap model participants incur no out-of-pocket expenses. An expansion of the program would **reduce out-of-pocket costs by \$10 million in 2023, \$18 million in 2025 and \$34 million in 2030** in constant 2022 prices assuming a 10% adoption rate.

## Benefits are potentially higher with higher adoption rate:

If adoption increases over time above the conservative 10% rate, **217,000 hospital bed days** and **\$102 million in out-of-pocket costs** (in constant 2022 prices) could be saved in 2030. Expansion of the short-stay, no-gap program across Australia and to other procedures would **reduce the burden on the hospital system**, especially in coping with the large backlog of elective surgery patients after the COVID-19 pandemic. It would also **lift the financial burden off patients** by reducing out-of-pocket costs.

Medibank, as a funder and major stakeholder, is playing an active role in **driving behavioural change** and **incentivising adoption across the hospital system**, through:

- Giving back most financial savings to customers through the 'no gap' component of the program. Medibank provides members with **more affordable care options without compromising the treatment outcomes**.
- **Paying an uplift to specialists** to ensure no out-of-pocket costs across the entire episode of hospital care for customers, and to support interested hospitals and healthcare providers in expanding the short-stay, no-gap program.

## Conclusion:

The short-stay, no-gap program provides patients with more affordable care options and reduces the length of stay in hospital. In an increasing adoption scenario, participants would be able to save up to \$102 million in out-of-pocket costs in 2030. Expansion of the program is expected to relieve pressure on the hospital system with more than 200,000 bed days to be saved in 2030. This corresponds to more than 700 hospital beds that could be freed up and reassigned to high-value patients.

# Background



# Parts of our healthcare system remain insensitive to low-value care

Medibank is strongly positioned to help address problems of low-value care in the health sector.

## Problems

## Medibank's advantage

Our healthcare system is fragmented, where primary care is mostly Federally funded and secondary care is funded via the States.



**Aligned incentives** – Medibank directly benefits from keeping people healthy and out of hospital.

Patients do not have the information to make informed decisions about their care.



**Insight** – Medibank collects data on a large number of episodes performed on a wide cross-section of people across many hospitals. This means Medibank can help provide patients with more information about their care options.

Clinicians focus on patient outcomes, but do not prioritise costs.



**A focus on value** – Medibank collects both cost and outcomes data, and can therefore highlight treatments that are low-value care. As a purchaser and provider of healthcare services, Medibank can and does actively work with hospitals and clinicians to avoid such care.

A small number of hospitals and clinicians charge much more than their peers. This pushes up healthcare costs and can lead to high out-of-pocket costs, which has contributed to making customers leaving the private health insurance market.



**Access to cost data across providers** – As a large purchaser of healthcare services, Medibank can both identify and seek to reduce outlier costs, making the private healthcare more sustainable and reducing reliance on the public system that is under increased pressure.

**An example of Medibank's ability to address these problems is illustrated by the adoption and expansion of the short-stay, no-gap program to reduce the average length of stay (ALOS) in hospital**

# ALOS can be lowered by reducing LOS for overnight separations and increasing rate of same day separations

Although ALOS in Australia is low compared to other OECD countries, there is room for improvement with the right targets.

## Reduce LOS for overnight separations

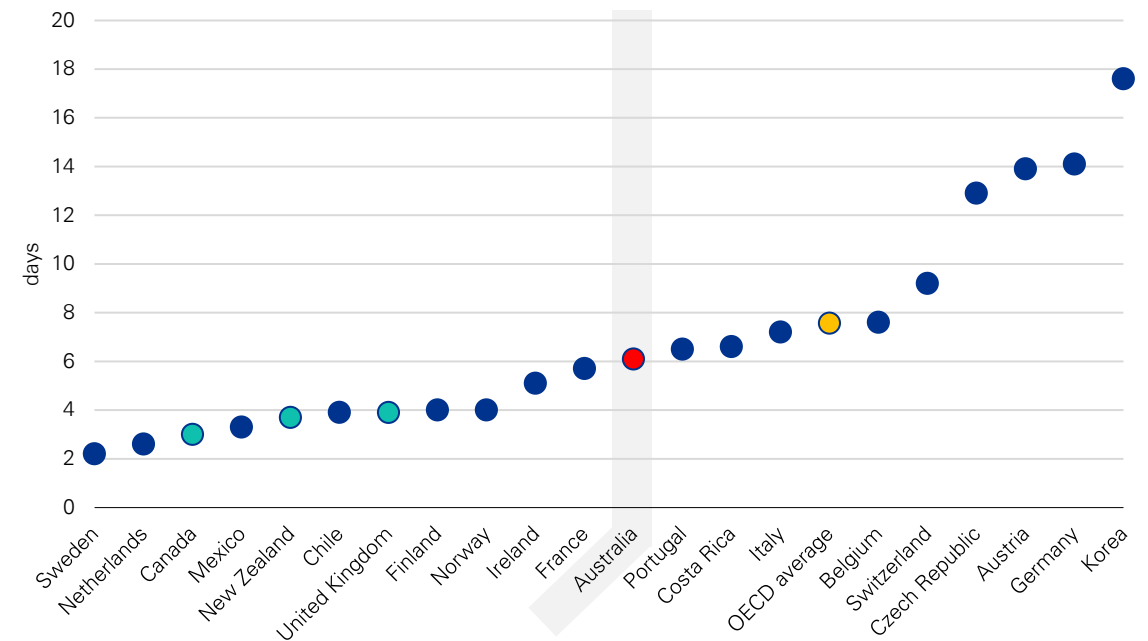
- Knee and hip replacement (KHR) procedures were two of the most common overnight acute separations in Australia in 2019-2020 with more than 100,000 total joint replacements performed each year.
- The average LOS following a KHR surgery in Australia was approximately six days, which was below the OECD average, however, this was twice longer than the LOS in Canada and New Zealand and 1.5 times longer than the LOS in the United Kingdom.<sup>2</sup>
- More than half of these are procedures with minor complexities, which may require shorter acute care.

## Increase rate of same-day separations

- Some procedures such as hernia procedures could be same-day separations.
- Less than 25% of hernia procedures in Australia in 2020 were completed as same-day separations, which was lower than rates in New Zealand (46%) and the UK (59%), and the expected rate recommended by the Royal Australasian College of Surgeons (70-80%).<sup>3</sup>

Medibank targets knee and hip replacement in the short-stay, no-gap pilot program aiming to reduce time in hospital for joint replacement patients where clinically appropriate. The program is expanding geographically and will include other procedures with a target of reduced length of stay or same-day discharge, such as general surgery, ear, nose and throat (ENT) and cardiology procedures.

Fig 1: Average length of stay following hip and knee replacements in selected OECD countries in 2018



Source: [OECD](#)

## Medibank's short-stay, no-gap program is an example of Medibank taking a proactive role in reducing the LOS whilst maintaining high quality of care

ALOS: Average length of stay

<sup>2</sup> <https://stats.oecd.org/index.aspx?queryid=30165>

<sup>3</sup> <https://www.mja.com.au/journal/2022/216/6/same-day-inguinal-hernia-repair-australia-2000-19#:~:text=We%20found%20that%2023.1%25%20of%20age%20who%20underwent%20unilateral%20repair.>



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The background features a dark blue gradient with several large, overlapping, curved lines that create a sense of depth and movement. A prominent feature is a grid of fine, light blue lines that forms a circular or semi-circular shape, resembling a stylized eye or a lens. The overall aesthetic is modern and technological.

# The Medibank Solution

# Medibank adopts and expands short-stay, no-gap program to reduce the length of stay

In August 2019, Medibank launched a pilot short-stay, no-gap program for knee replacements and hip replacements. In 2020, the program began to expand geographically and include other procedures.

## The program:

- Aims to support clinicians in reducing patients' length of stay in hospital where clinically appropriate.
- Offers patients more affordable care options with reduced or no gap for eligible patients.
- Increases patients' satisfaction with high quality of care.
- Enables patients to return home sooner.
- Partners with health and allied health professionals across Australia to deliver the service.
- Keeps people in hospital for one to three days, compared with five days<sup>3</sup> in a typical joint replacement with conventional care.
- Aims to expand across many other surgical modalities.<sup>4</sup>

**Medibank's short-stay, no-gap pilot program shows that there is no change in the likelihood of adverse outcomes while the ALOS is reduced by 50%.**

<sup>3</sup> Schilling C, Keating C, Barker A, Wilson S, Petrie D. 'Predictors of inpatient rehabilitation after total knee replacement: an analysis of private hospital claims data', *Med J Aust* 2018; 209(5):222-227.

<sup>4</sup> <https://www.medibank.com.au/livebetter/newsroom/post/medibank-and-doctors-form-new-short-stay-no-gap-hospital-joint-venture>



# 1. Patient Satisfaction



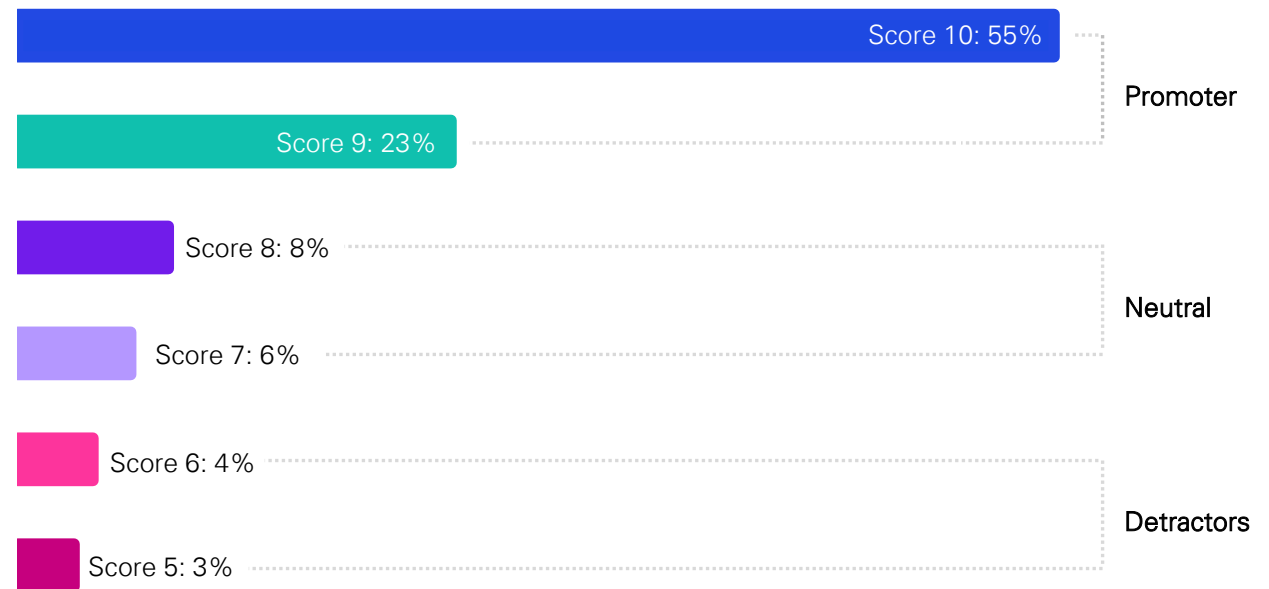
# The short-stay, no-gap program facilitates patient satisfaction and preferences for care

The NPS of the short-stay, no-gap program was 71, considerably higher than the average NPS of all surveyed orthopaedic separations in 2021 (55.2).

- Short-stay, no-gap participants and Medibank customers who had an orthopaedic separation in a private hospital were subsequently surveyed via telephone. Surveyed customers were asked to rate their procedure on a scale from 1 (least satisfied) to 10 (most satisfied).
- These ratings were classified into three categories: Promoters (9 – 10), Neutral (7 – 8) and Detractors (1-6). NPS of the short-stay, no-gap program was 71<sup>4</sup>.
- Most of surveyed participants (78%) were promoters of the short-stay, no-gap program, highlighting the seamless process and no out-of-pocket expenses.

Fig 2: Satisfaction with the short-stay, no-gap pilot program (n=95)

Score: % responses



Source: KPMG analysis of Medibank's short-stay, no-gap NPS data, 2022.

<sup>4</sup> Net Promoter score (NPS) = %Promoters - %Detractors



**“Overall service was fantastic - happy that Medibank was able to help me have no out of pocket expenses during a time where I am out of work.”**

*Source: Medibank's short-stay, no-gap NPS data, 2022*

## 2. Patient Outcomes



# The short-stay, no-gap program delivers the same clinical outcomes as conventional care

There is no significant difference in the probability of having an adverse outcomes between short-stay, no-gap pilot program participants and patients receiving conventional care, when controlling for patients' characteristics.

## Short-stay, no-gap participants vs Patients receiving standard care

Controlling for other factors that may affect outcomes:

- Age
- Gender
- Number of comorbidities
- Complexity indicator

ICU admission	Hospital-acquired complications	Readmission within 28 days	Readmission length of stay
None of the short-stay, no-gap participants were admitted to ICU <sup>5</sup>	None of the short-stay, no-gap participants experienced a hospital-acquired complication	There was no significant difference in the likelihood of readmission within 28 days between short-stay, no-gap participants and patients receiving conventional care	The average readmission length of stay was the same for short-stay, no-gap participants and patients with conventional care

Source: KPMG Analysis of Medibank 2022

<sup>5</sup>The analysis regarding ICU admission excluded observations from South Australia as an unidentified hospital admitted all patients to ICU after a surgery

# 3. Bed-day savings



# The short-stay, no-gap program halves the acute length of stay following minor complexity hip and knee replacements

Across Australia, the short-stay, no-gap pilot program reduced length of stay hip and knee replacement with minor complexities by one to three days. The average reduction rate<sup>6</sup> was 50% of the current LOS.

## WESTERN AUSTRALIA

Number of pilot participants: 4  
 Avg bed-days saved: 1.5  
 Reduction rate: 39%

## SOUTH AUSTRALIA

Number of pilot participants: 61  
 Avg bed-days saved: 1.1  
 Reduction rate: 25%

## QUEENSLAND

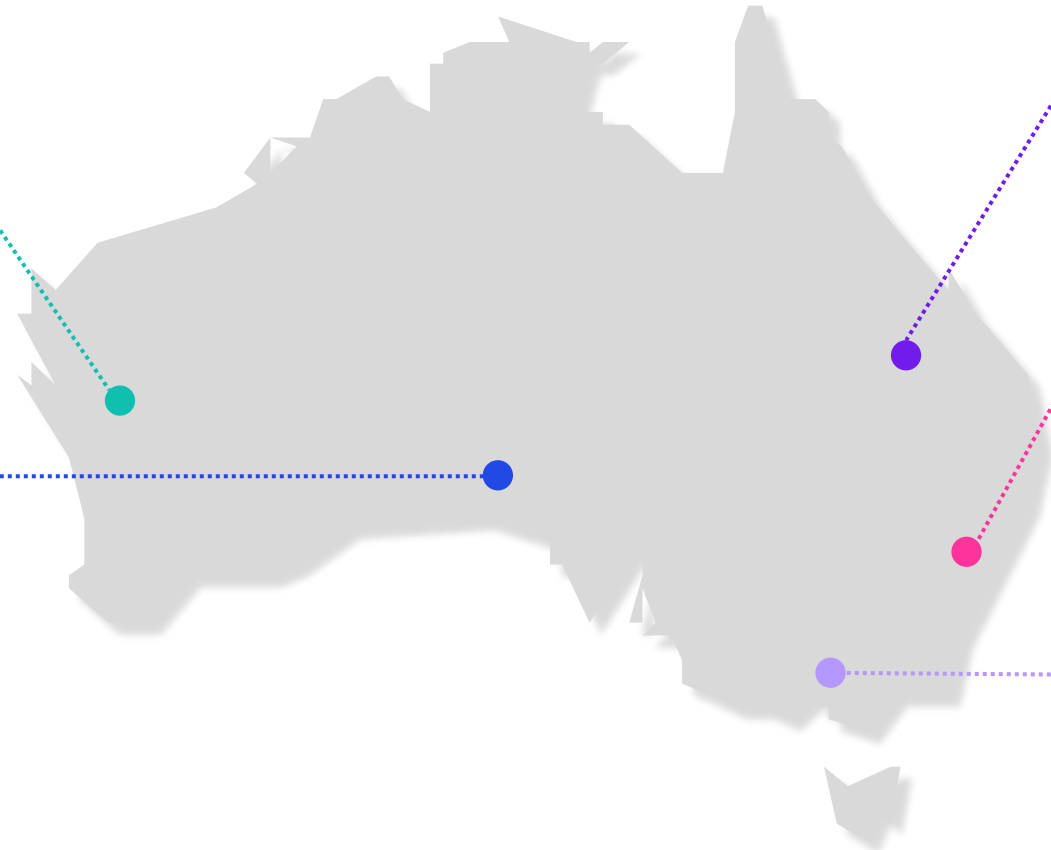
Number of pilot participants: 17  
 Avg bed-days saved: 2.8  
 Reduction rate: 67%

## NEW SOUTH WALES

Number of pilot participants: 77  
 Avg bed-days saved: 2.0  
 Reduction rate: 44%

## VICTORIA

Number of pilot participants: 125  
 Avg bed-days saved: 3.2  
 Reduction rate: 70%



$$^6 \text{ Reduction rate} = \frac{ALOS_{usual} - ALOS_{pilot}}{ALOS_{usual}}$$

Source: KPMG Analysis of Medibank 2022



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# 4. Facilitating a sustainable healthcare system





# Expanding the short-stay, no-gap program incentivises behavioral change across the system



Expansion of the short-stay, no-gap program across Australia and to procedures other than joint replacements could reduce the burden on the hospital system, especially in coping with a large backlog of elective surgery patients after the COVID-19 pandemic

Medibank, as a funder and major stakeholder, is playing an active part in driving the behavioural change and incentivising a wider adoption of the short-stay, no-gap program by:

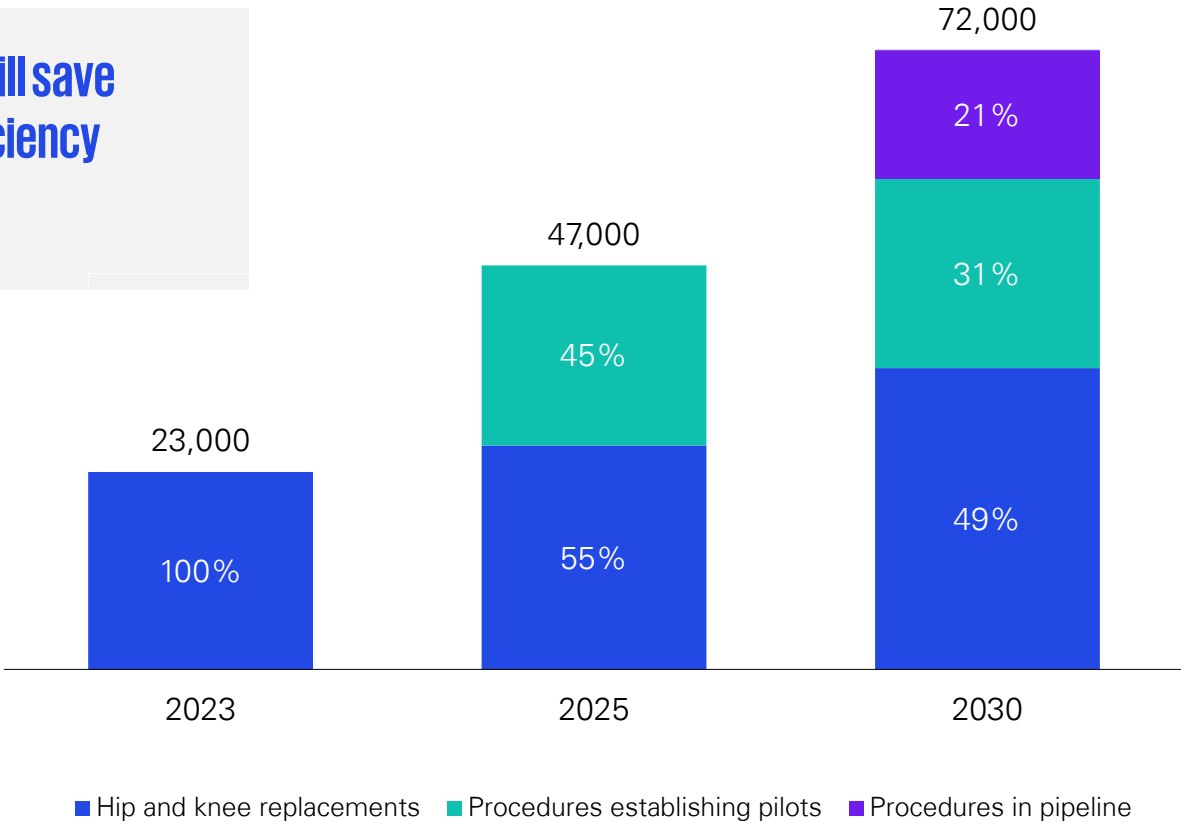
- Giving back most financial savings to customers through the 'no gap' component of the program, Medibank provides members with **more affordable care options** without compromising the treatment outcomes.
- **Paying an uplift to specialists** to ensure no out-of-pocket expenses across the entire episode of hospital care for patients, and to support interested hospitals/providers in expanding the short-stay, no-gap program.

# Expanding the short-stay, no-gap program facilitates a sustainable healthcare system

Expansion of the short-stay, no-gap program across Australia will save thousands of hospital beds and is expected to increase the efficiency of the system as well as deliver cost savings in the long run.

Assuming 10% of clinically appropriate patients with hip and knee replacements participate in the short-stay, no-gap program in 2023, this would save 23,000 bed days across the public and private hospital system. An expansion of the program to other procedures<sup>7</sup> such as general surgeries, ENT and cardiology, would save 47,000 bed-days in 2025 and 72,000 bed-days in 2030 assuming the same 10% adoption rate. By 2030, hip and knee replacements will account for approximately 50% of the bed-day savings.

Fig 3: Potential bed-day savings from the short-stay, no-gap program, assuming 10% of clinically appropriate patients participating in the program



Source: KPMG Analysis of Medibank 2022

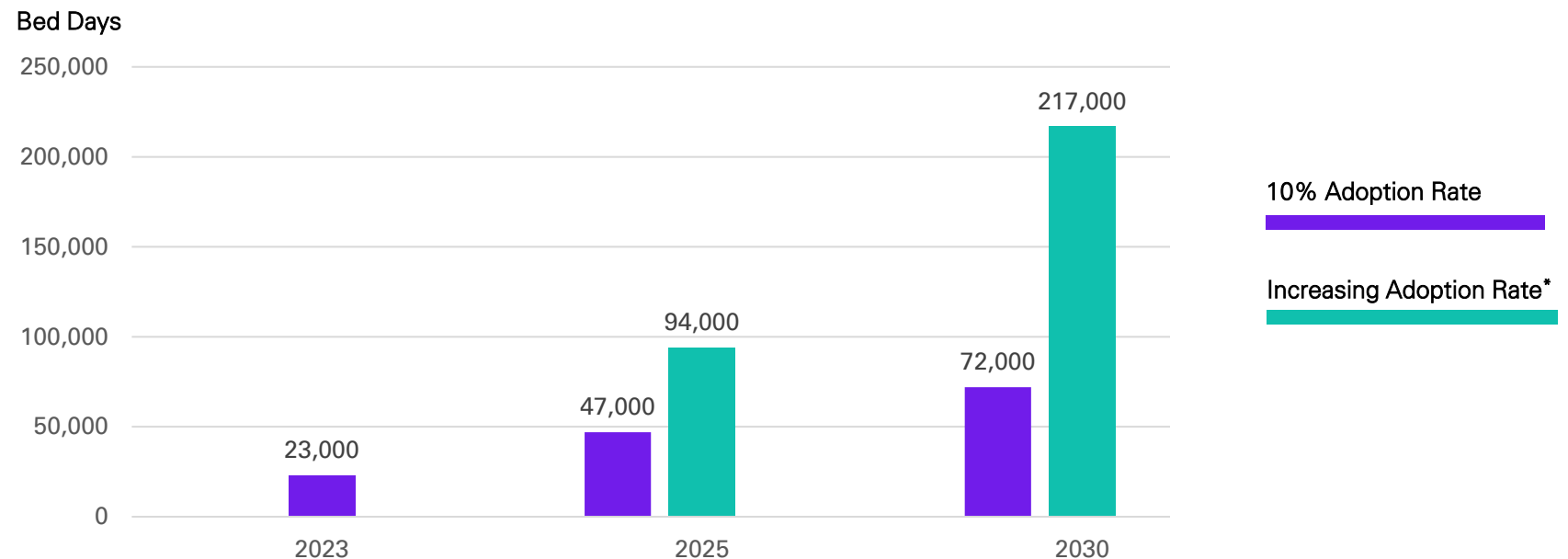
<sup>7</sup> See appendix for the detailed approach and the procedures on expansion list. These procedures exclude shoulder replacement, knee arthroscopy and sleeve gastrectomy due to unavailable data on target length of stay. Bed day savings are estimated using the projected number of procedures in both public and private hospitals based on the pre-COVID-19 trends

# Expanding the short-stay, no-gap program facilitates a sustainable healthcare system

The potential savings could be higher if more healthcare providers and patients are willing to adopt the new initiative. In the base case of a constant 10% adoption rate, the short-stay, no-gap program would save 23,000 bed days in 2023 and 72,000 bed days in 2030. If the adoption rate increases over time, 217,000 hospital bed days, which are equivalent to more than 700 hospital beds annually (assuming 85% utilisation), could be freed up and reassigned to patients receiving high-value care by 2030.

The savings are expected to be higher with an increasing adoption rate of short-stay, no-gap model over time

Fig 4: Potential bed-day savings from the short-stay, no-gap program assuming increasing adoption rate



\* In the scenario of increasing adoption rates, we assume the proportion of clinically appropriate patients participating in short-stay, no-gap to be at 10% in 2023, 20% in 2025 and 30% in 2030.

# Expanding the short-stay, no-gap program saves participants thousands of dollars in out-of-pocket costs

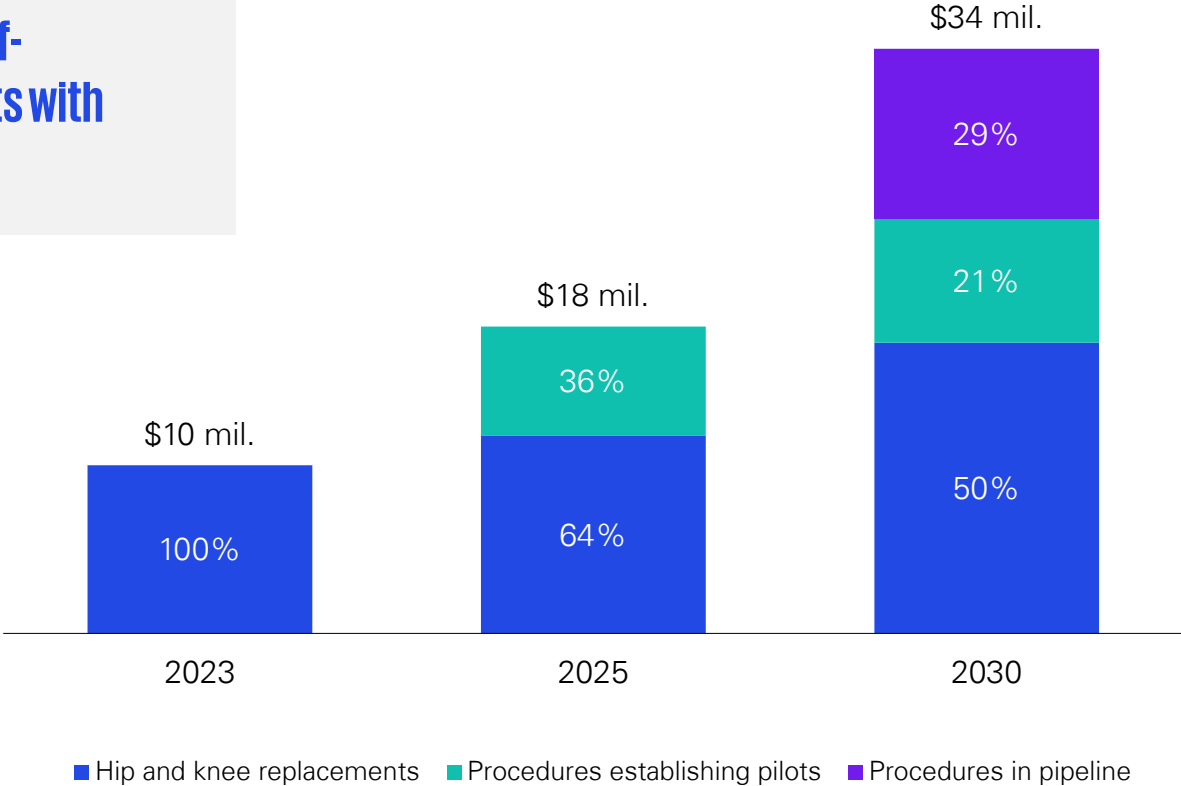
Participants in the short-stay, no-gap program do not incur out-of-pocket costs. The program has been designed to provide patients with more affordable care.

Patients are paying approximately \$1,200 out of pocket for a hip or knee replacement. It is expected that this amount could increase to \$1,400 in 2030 based on the pre-COVID-19 trends.

The average out-of-pocket costs for procedures establishing pilots and procedures in pipeline currently range from \$430 to \$1,100.

An expansion of the program would reduce out-of-pocket costs by \$10 million in 2023, \$18 million in 2025 and \$34 million in 2030, in constant 2022 prices, assuming a 10% adoption rate.

Fig 5: Potential out-of-pocket cost savings from the short-stay, no-gap program, in constant 2022 prices, assuming 10% of clinically appropriate patients participating in the program



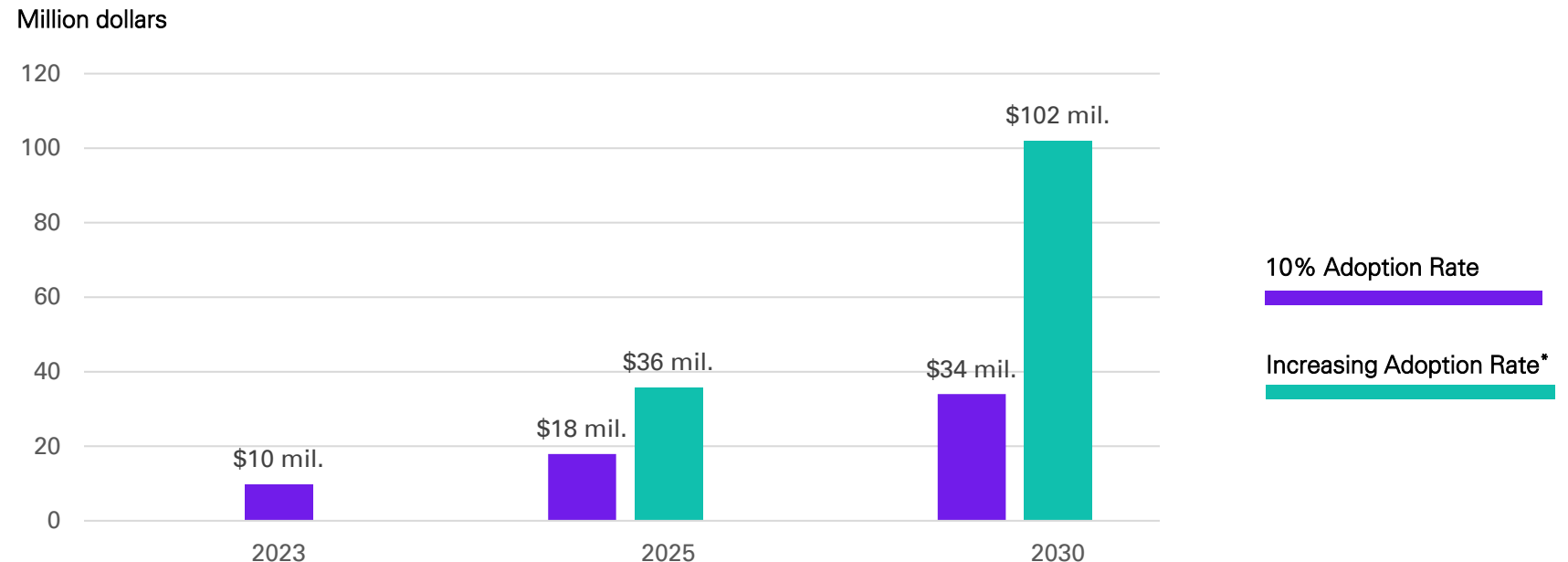
Source: KPMG Analysis of Medibank 2022

<sup>7</sup> See appendix for the detailed approach and the procedures on expansion list. These procedures exclude shoulder replacement, knee arthroscopy and sleeve gastrectomy due to unavailable data on target length of stay. Out-of-pocket cost savings are estimated using the projected number of procedures in both public and private hospitals based on the pre-COVID-19 trends. The average out-of-pocket cost per procedure is estimated based on out-of-pocket costs incurred by Medibank’s clients in FY2016-FY2020 to exclude COVID-19 effects. Values are not adjusted for inflation and other factors.

# Expanding the short-stay, no-gap program saves participants thousands of dollars out-of-pocket costs

The potential out-of-pocket cost savings could be higher if the adoption rate increases over time. The out-of-pocket cost savings could rise to \$102 million per year in 2030 if 30% of eligible patients were willing to participate in the program.

Fig 6: Potential out-of-pocket cost savings from the short-stay, no-gap program assuming increasing adoption rate



\* In the scenario of increasing adoption rates, we assume the proportion of clinically appropriate patients participating in the short-stay, no-gap program to be at 10% in 2023, 20% in 2025 and 30% in 2030. Dollar values assume constant 2022 prices.

The savings are expected to be higher with an increasing adoption rate of the short-stay, no-gap model over time

# The short-stay, no-gap program redistributes cost savings to patients, healthcare workers and to the system

The short-stay, no-gap program is an initiative to reduce LOS following surgeries, leading to reduced pressure on the hospital system, expected cost savings in the long run, and potential benefit redistribution to patients and healthcare workers.

## Short-stay, no-gap program

- Reduced LOS
- Cost savings from shorter stay
  - Conservative estimates across a range of procedures show that LOS reduction by one full day can lower hospital cost by 3% on average<sup>8</sup>

### Hospital system

- More bed-days can be allocated to patients in need
- Potential cost savings from shorter acute care
- Lower growth in capital costs

### Patients

- Increased satisfaction and lower risk of infection due to shorter stay in hospital
- No out-of-pocket expense
- Downward pressure on private health insurance premiums in the future when the reduced LOS translates into lower procedure costs

### Healthcare workers

- Can get an uplift payment due to reduced cost from shorter LOS following a procedure

<sup>8</sup> <https://www.sciencedirect.com/science/article/abs/pii/S1072751500003525>

# Medibank's role as an agent of change



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# Medibank is strongly positioned to help deliver health sector improvements

Medibank, as a funder and major stakeholder, is playing an active role as an agent for patients, to ensure they get the best possible care at the lowest cost:

- Hospitals aim to improve patient outcomes, but also have a revenue motivation.
- Clinicians seek the best care for their patients, but do not tend to consider cost as part of their decision-making.
- Patients do not have the full information to make informed care choices.
- Medibank has an active role to play as a key stakeholder in Australia's healthcare system.

**The short-stay, no-gap program is an example of Medibank acting as an agent for patients to deliver better outcomes and lower costs, and as a leader in driving behavioural change and incentivising the adoption of innovations in the health sector.**





# Appendix



# Benefits from the expansion of the short-stay, no-gap program

The bed-day savings from an expansion of the short-stay, no-gap program are estimated based on the number of separations in the hospital system (public and private) assuming (1) a constant adoption rate at 10% and (2) increasing adoption rates at 10% in 2023, 20% in 2025 and 30% in 2030.

Stage	Procedure group	Procedure	% clinically appropriate
Expansion	Joint replacements	Hip replacements	80%
Expansion	Joint replacements	Knee replacements	79%
Establishing Pilot	General Surgery	Hernia Procedures	70%
Establishing Pilot	General Surgery	Cholecystectomy	50%
Establishing Pilot	ENT	Nasal Procedures	90%
Establishing Pilot	ENT	Sinus Surgery	85%
Establishing Pilot	ENT	Tonsils And Adenoidectomy	70%
Establishing Pilot	Cardiology	Angiography	75%
Establishing Pilot	Cardiology	Implant of Pacemaker	50%
Establishing Pilot	Cardiology	Stents	50%
Pipeline	Knee Procedures	Knee Reconstruction	80%
Pipeline	Bariatrics	Gastric Bypass	50%
Pipeline	Shoulders	Shoulder Reconstruction	50%
Pipeline	Vascular	Varicose Veins	90%
Pipeline	Vascular	Vascular Procedures	50%
Pipeline	Gynaecology	Hysterectomy	40%
Pipeline	Urology	Prostate Procedures	90%
Pipeline	Back Surgery	Spinal Fusion	50%

## Step 1:

Estimate the number of separations for each procedure in the expansion list in 2023, in 2025 and in 2030 based on the average annual growth rate before COVID-19 pandemic in 2016-2019 .

## Step 2:

Estimate the number of separations eligible for the short-stay, no-gap program based on difference between the proportion of clinically appropriate patients indicated in the literature and the proportion of patients meeting the short-stay program's LOS target

## Step 3:

Estimate the number of separations adopting the short-stay, no-gap program

**(1) Base case:** Assuming the adoption rate to be constant at 10% of the eligible patients

**(2) Increasing adoption rates:** Assuming the adoption rate to be at 10% in 2023, 20% in 2025 and 30% in 2030.

Adoption rate is applied on the difference between the proportion of clinically appropriate patients and proportion of patients currently meeting the short-stay program's LOS target

## Step 4:

Estimate the benefits:

$$\begin{aligned} & \text{Number of bed days saved} \\ &= \text{Number of separations in year } X \times (\% \text{ clinically appropriate} - \% \text{ meeting LOS target}) \\ & \times \text{adoption rate} \times \text{number of bed days saved per separation} \end{aligned}$$

Source: Medibank 2022



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# Benefits from the expansion of the short-stay, no-gap program

The out-of-pocket cost savings from an expansion of the short-stay, no-gap program are estimated based on the expected out-of-pocket cost per separations based on pre-COVID-19 trends and the expected number of participants in the short-stay program.

## Step 1:

Estimate the number of separations adopting the short-stay, no-gap program as discussed in the previous slide

- (1) **Base case:** Assuming the adoption rate to be constant at 10% of the eligible patients
- (2) **Increasing adoption rates:** Assuming the adoption rate to be at 10% in 2023, 20% in 2025 and 30% in 2030.

## Step 2:

Estimate the average out-of-pocket cost per separation for procedures on the expansion list of the short-stay, no-gap program.

The estimation is based on pre-COVID-19 trends, which utilises Medibank's data on the average out-of-pocket cost from FY2016 to FY2020 to avoid COVID-19 effects.

Note that the estimations do not account for other factors such as:

- (1) changing prices, which may result in a significant increase in procedure costs with implications for out-of-pocket costs in the future; and
- (2) other healthcare initiatives, which may affect the out-of-pocket costs for some procedures.

## Step 3:

Estimate the benefits

$$\text{Out - of - pocket cost savings}_t = \sum_{i=1}^n \text{Number}_{it} \times \text{OOP}_{it}$$

where:

$\text{Out - of - pocket cost savings}_t$  is the out-of-pocket cost savings in year t

$\text{Number}_i$  is the number of participants in the short-stay, no-gap program for procedure i in year t

$\text{OOP}_{it}$  is the predicted out-of-pocket cost per separation of procedure i in year t based on pre-COVID-19 trends



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