



# MSC: 20<sup>th</sup> Anniversary *JSM Memorial Education Forum*

November 18th, 2020



# Agenda for our discussion today

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- **ResMed 2025 Mission**
- **ResMed 2025 Strategy**
  - Sleep Apnea
  - COPD
  - Software-as-a-Service
  - Digital Health Technology
- **Open Forum Q&A**



***Our mission is to change 250 million lives in 2025***

*We're proud to offer digital and connected health solutions that help those with sleep apnea, COPD and other respiratory diseases live happier, healthier lives in the comfort of home or care setting of their choice*



***During the last 12 months, we changed over 115 million lives with our digital health products and cloud-based software solutions***



# ResMed 2025: a patient-centric, digitally-enabled strategy

Expect impact of COVID-19 will accelerate this strategy



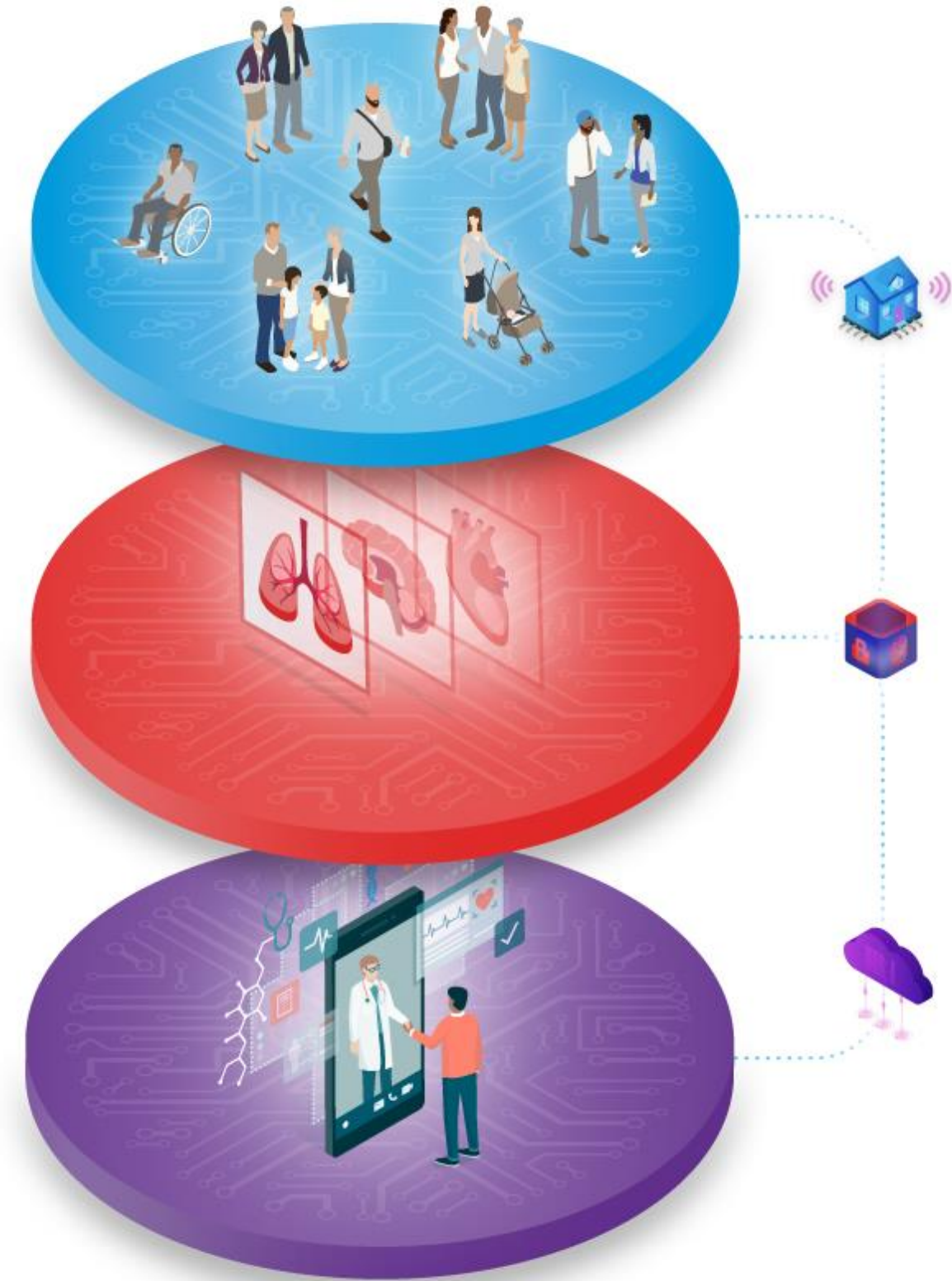
250 million lives improved  
in out-of-hospital healthcare  
in 2025!

**Purpose** • Empower people to live happier, healthier  
and higher quality lives in the comfort of  
their home

**Growth Focus** • Global health epidemics in **sleep apnea**,  
**COPD**, other major chronic conditions,  
and **SaaS** solutions that improve care in  
out-of-hospital settings

**Growth Advantage** • Transform care through **innovative solutions** and  
**tech-driven integrated care** to drive superior  
outcomes, experiences and efficiency

**Growth Foundations** • High-performing, diverse and entrepreneurial people  
• Industry-leading innovation and business excellence  
• Digital health technology and scientific leadership





# Priorities that guide our daily focus

Grow and differentiate our core sleep apnea, COPD, and asthma businesses across global markets

Deliver world-leading medical devices and digital health technology to engage physicians, providers, and patients

Build the world's best software solutions network for healthcare that is delivered outside the hospital

## Our triple aim:

- I. Slow chronic disease progression
- II. Reduce overall healthcare system costs
- III. Improve the quality of life for the patient

Empower people to live happier, healthier and higher quality lives in the comfort of their homes

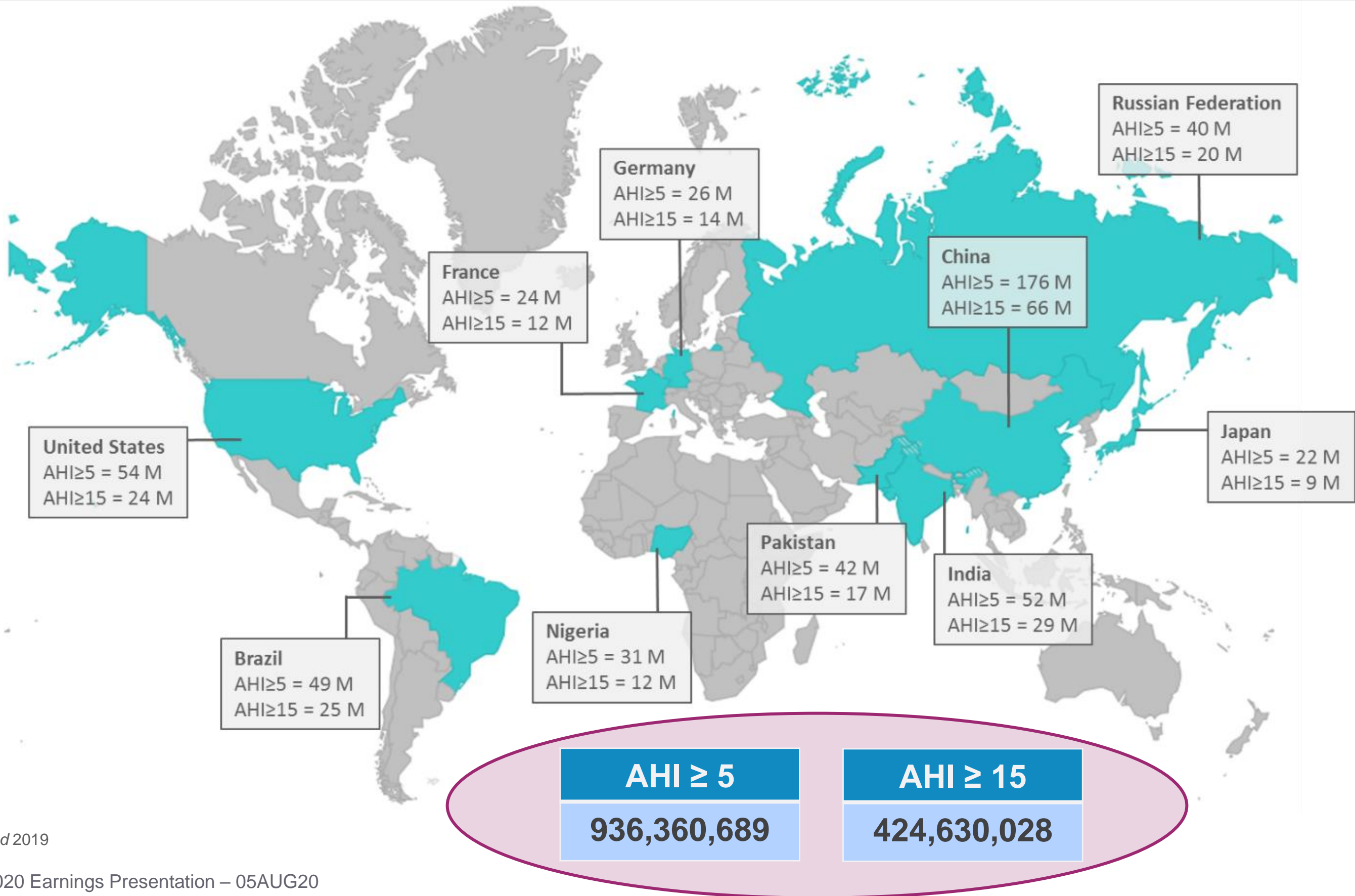


# Sleep Apnea





# The global prevalence of sleep apnea is enormous and growing...



Benjafield, et al. *Lancet Respir Med* 2019



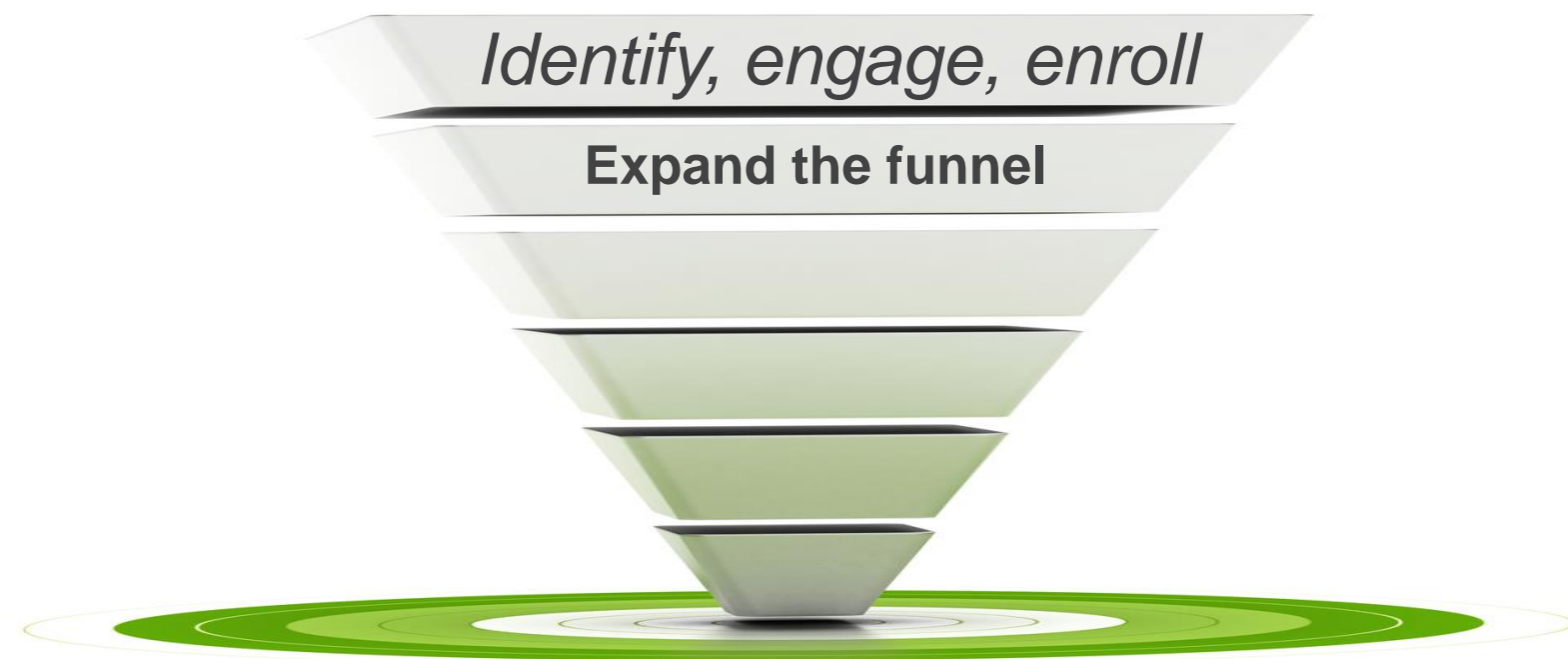


# Our partnerships will address sleep health as a public health crisis



## Sleep research joint venture with Verily

- Develop software solutions to help identify, diagnose, treat, and manage those with OSA
- To study the health and financial impacts of untreated sleep apnea
  - Prove the ROI for treating OSA



*With Verily, we can unlock richer, more holistic insights about sleep apnea and the value of treating it*

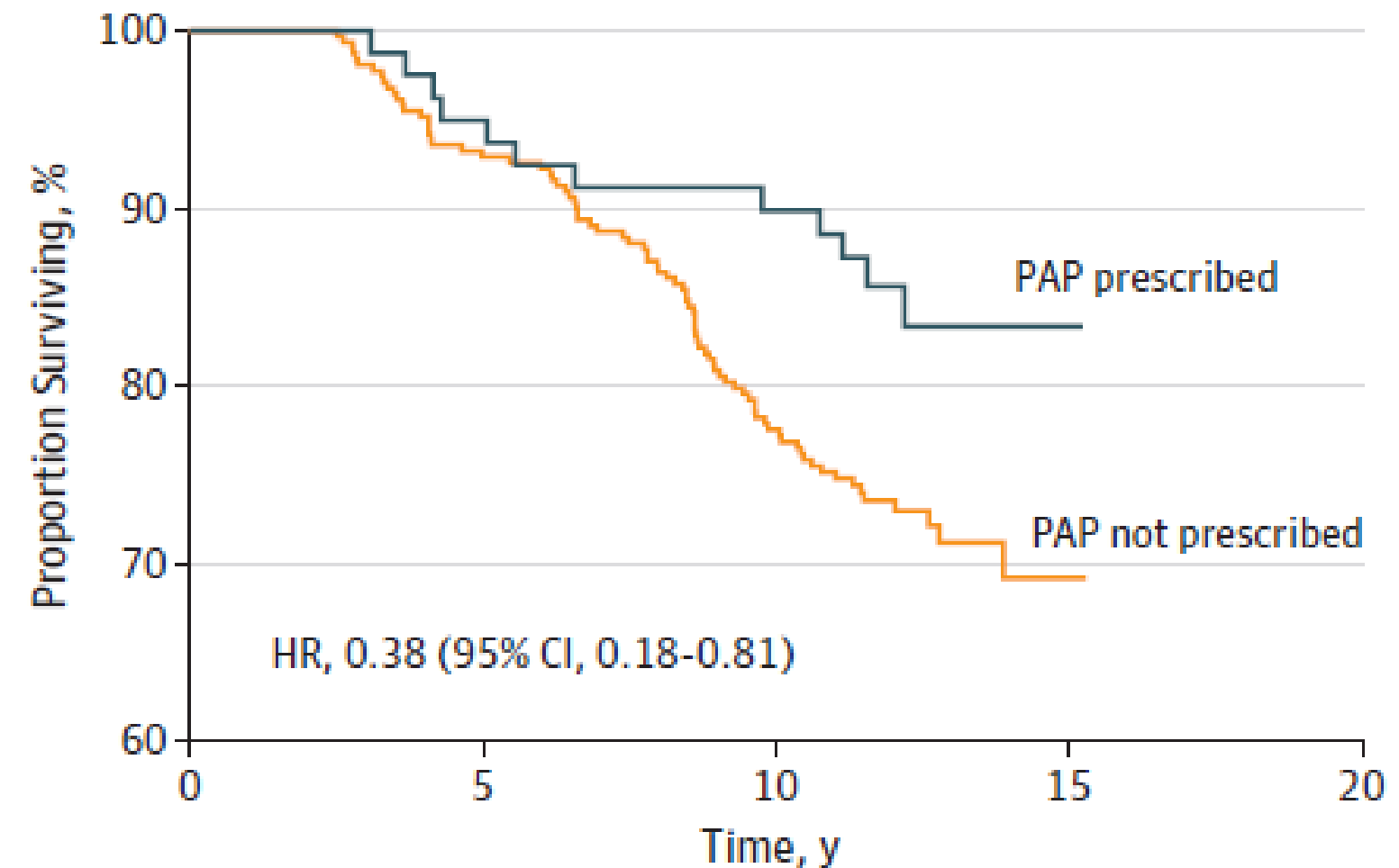


# Reducing mortality with PAP therapy

## U.S. multicenter, population-based cohort study

Sleep Heart Health Study

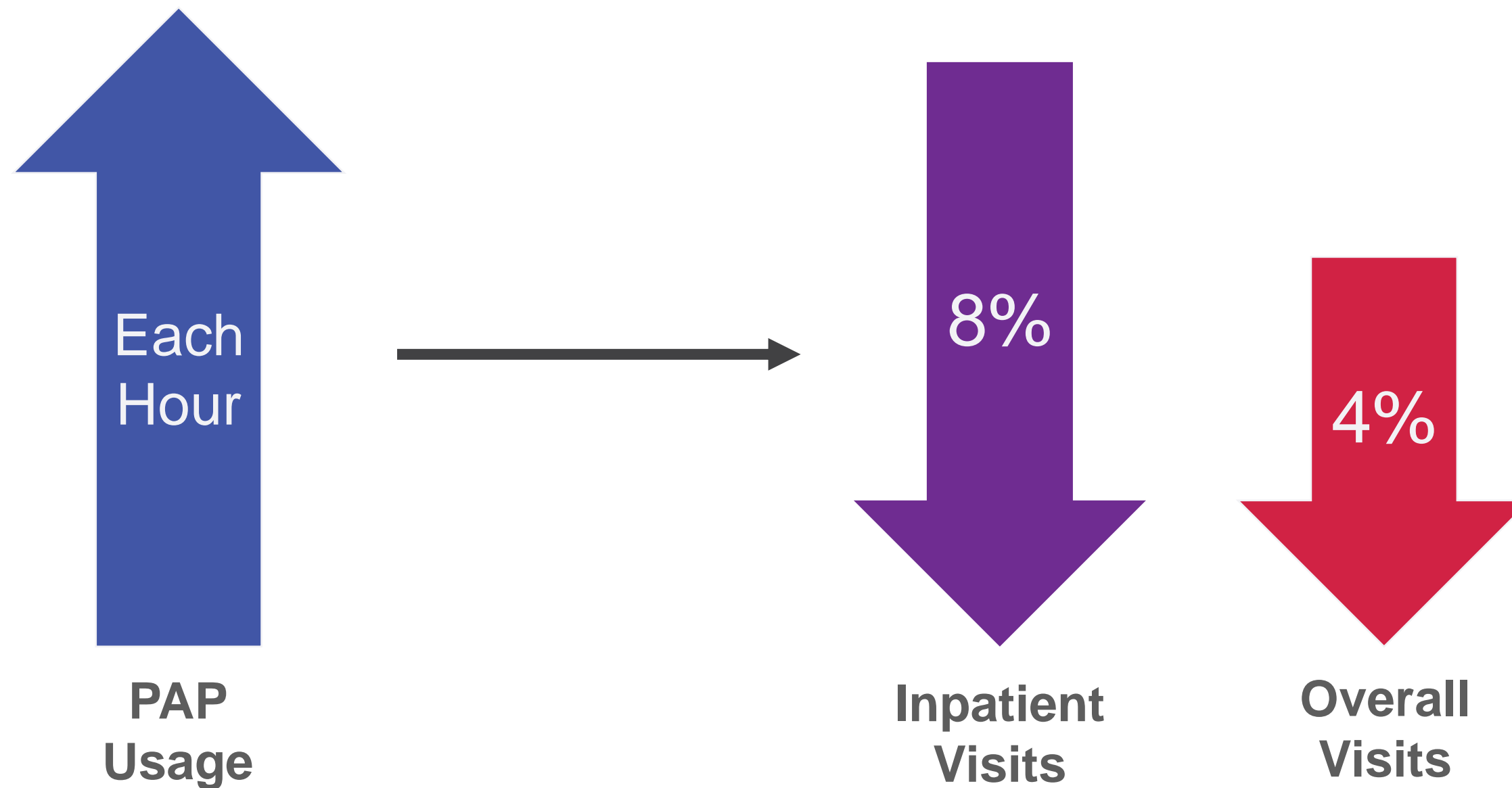
- Study included 392 patients with sleep apnea, with 11 years of follow-up
- Positive airway pressure therapy associated with a **62% lower risk of all-cause mortality**
- Death rate was twice as high for persons who did not receive positive airway pressure therapy
  - (24.7 vs 12.8 deaths per 1000 person years,  $p = 0.03$ )





# Demonstrated positive dose-response relationship between increased CPAP usage and lower healthcare costs

For every **one hour per night** increase in PAP usage there was an **8% decrease** in inpatient visits and a **4% decrease** in overall acute care visits.<sup>1</sup>



1. Kirsch et al., *Association of PAP use with acute care utilization and costs*, JCSM 2019  
"Overall visits" includes inpatient, ED, and observation visits.



# COPD



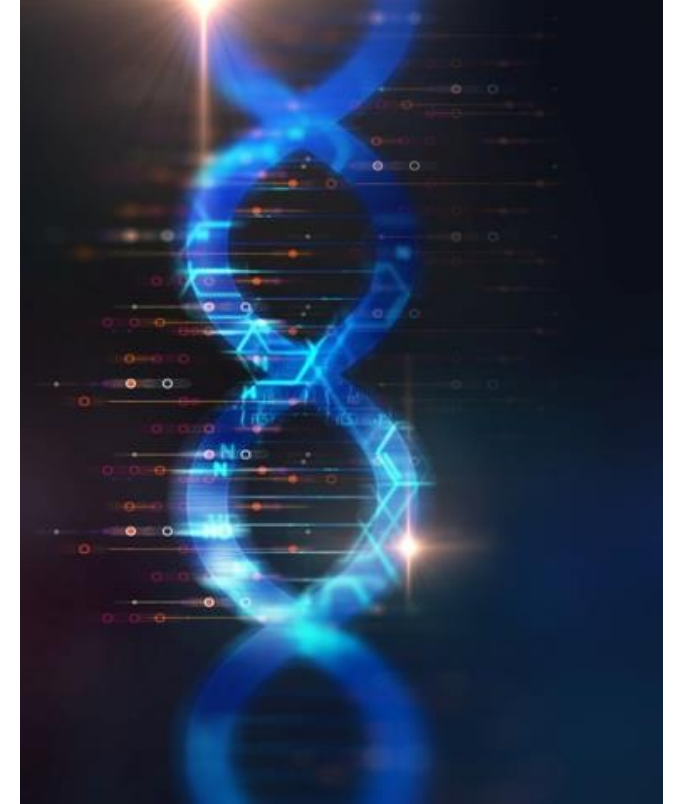


# COPD is one of the top three killers in the world with no cure

*COPD has causes from environmental, to occupational, to genetics*

Causes include:

- smoking, vaping, & second hand smoke
- air pollution from industry and transportation
- occupational exposure to noxious gases
- history of childhood infections (catalyst)
- genetic inheritance, leading to COPD onset





# COPD is a large and growing market



More than 380 million people worldwide are estimated to have COPD

–Largely undiagnosed COPD sufferers in high-growth markets such as China, India, Brazil and E. Europe may be well over 100 million



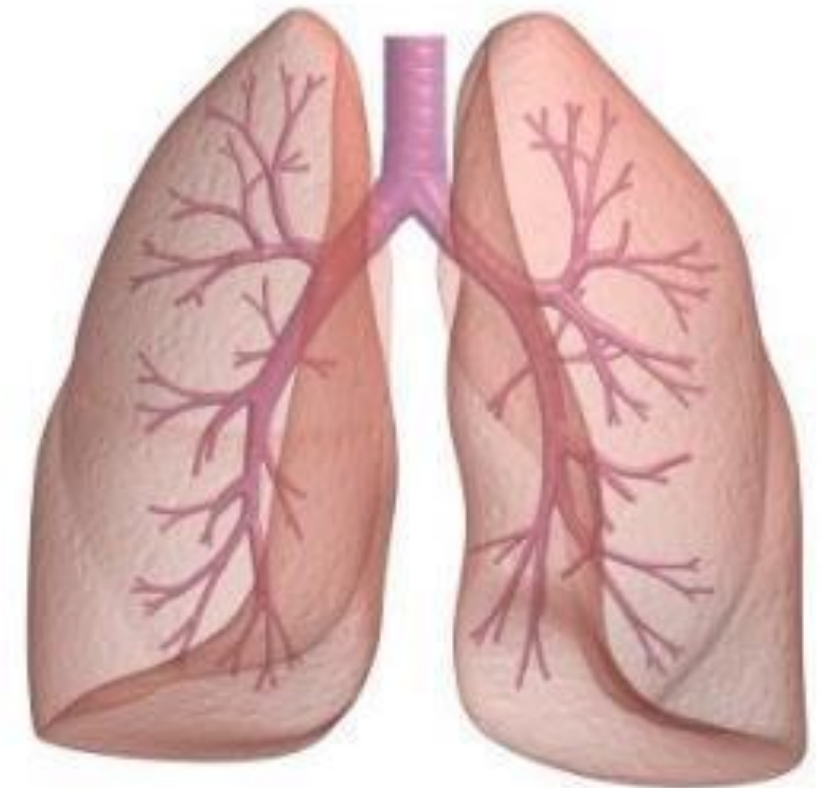
Cost to healthcare systems from COPD is enormous:

–Europe: ~€48 billion per year

–United States: ~\$50 billion per year



More than 3 million people worldwide die each year due to COPD



<sup>1</sup>World Health Organization. The top 10 causes of death: Fact sheet: No310 (2014, May) accessed 20Jul16

<sup>2</sup> <https://www.ncbi.nlm.nih.gov/pubmed/26755942>

<sup>3</sup>Company estimates based on World Health Organization estimates and Zhong et al. "Prevalence of Chronic Obstructive Pulmonary Disease in China" *Respiratory and Critical Care*

<sup>4</sup>European Respiratory Society, *European Lung White Book* <http://www.erswhitebook.org/chapters/the-economic-burden-of-lung-disease/> accessed 20Jul16

<sup>5</sup>Guarascio et al. Dove Med Press, 2013 Jun 17

<sup>6</sup>World Health Organization. Chronic obstructive pulmonary disease (COPD): Fact sheet No315. 2015 accessed 20Jul16

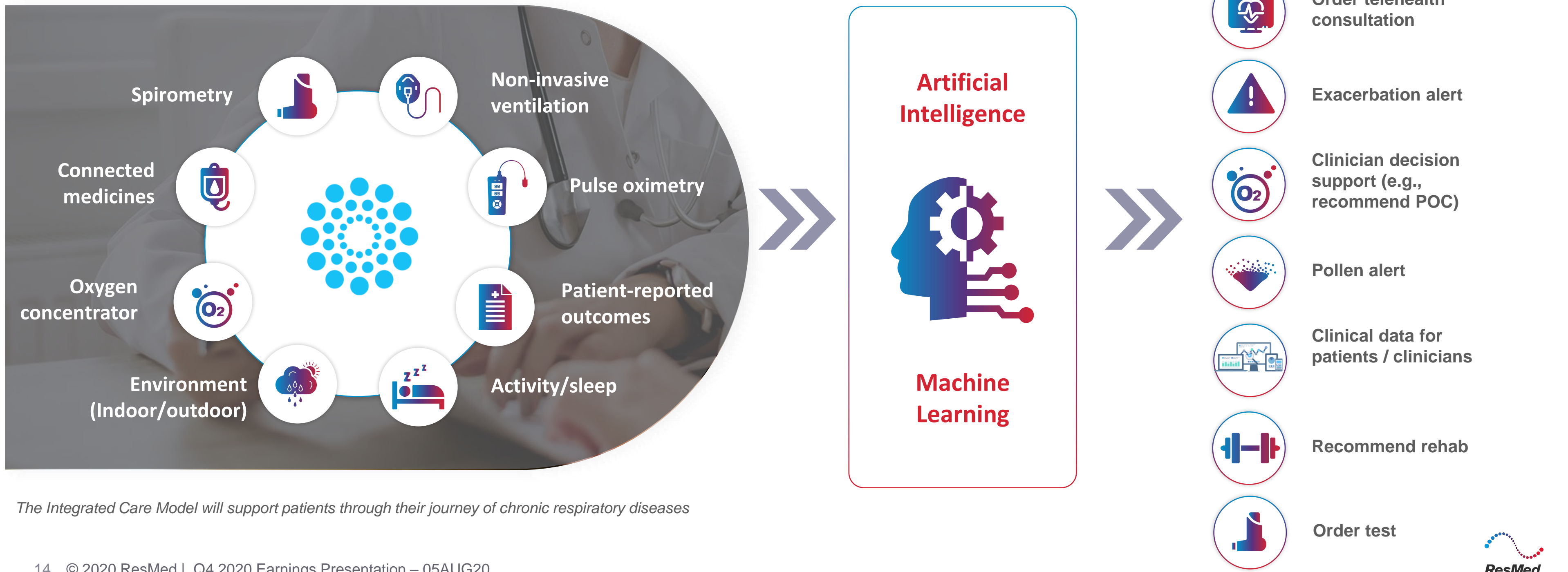


# Our digital health platform supports COPD patients on their healthcare journey

The digital respiratory Integrated Care Model we are creating through Propeller

Data processed by a powerful insights engine

Driving value propositions for stakeholders



The Integrated Care Model will support patients through their journey of chronic respiratory diseases



# Software as a Service (SaaS)





# SaaS portfolio well positioned to improve outcomes and lower costs across out-of-hospital healthcare

**Better patient experience. Improved clinical outcomes. Lower overall cost of care.**

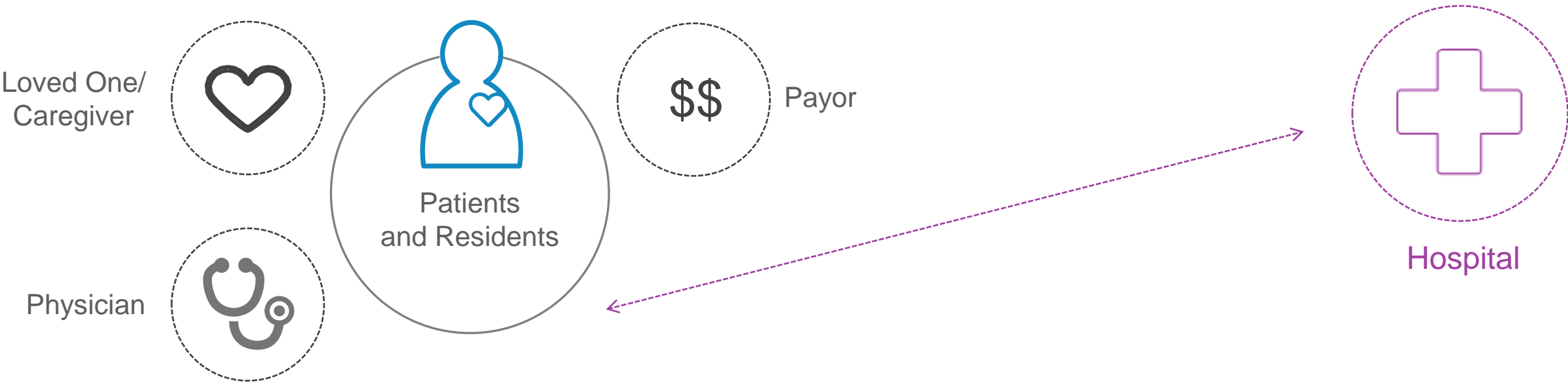
- 
- **Intelligent workflow**
  - **Privacy**
  - **Security**
  - **Advanced analytics**
  - **Interoperability**

- Single view of the patient
- Comprehensive interoperability
- Care transition, coordination, and collaboration
- Seamless access to information for patients and those who care for them
- Manage populations across provider / care settings
- Data insights to enable better care / better results

*Connected systems deliver the best outcomes for value-based care*



# Leading provider of cloud-based software for out-of-hospital care providers across multiple settings



MatrixCare					
Skilled Nursing	Home Health HEALTHCARE <i>first</i> by ResMed brighttree by ResMed	Hospice HEALTHCARE <i>first</i> by ResMed brighttree by ResMed	Private Duty	Senior Living	Life Plan Community



Brighttree	
HME Providers	



ResMed	
Sleep and RC Products & Solutions	





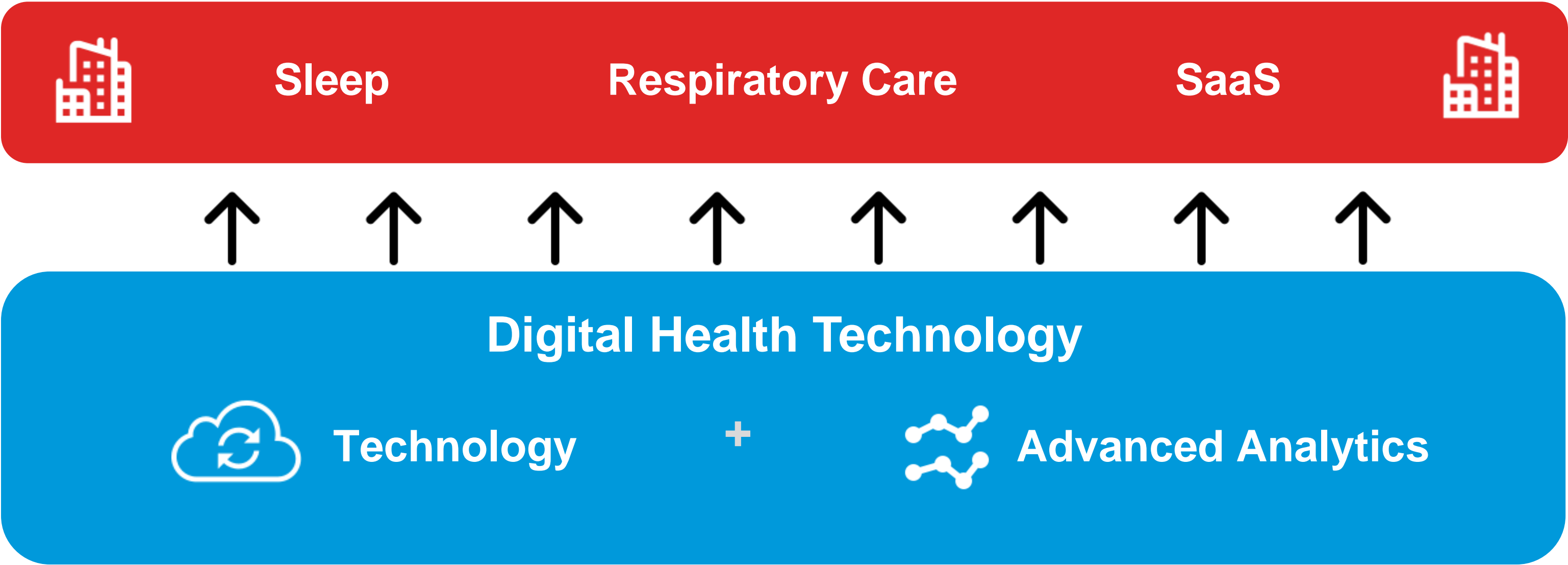
# Digital Health Technology





# Digital health technology – *our transformational foundation*

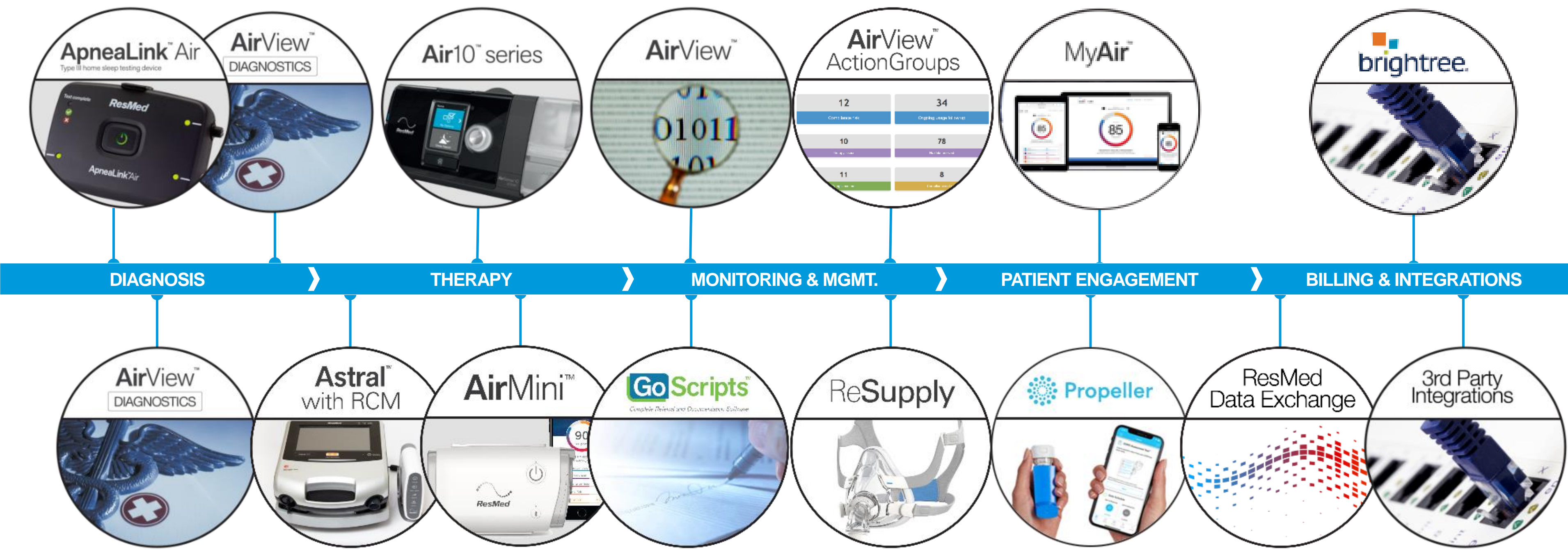
**Purpose:** Enable all ResMed businesses to achieve their business objectives by leveraging technology, data, and advanced analytics.





# We transform 7.5+ billion nights of medical data into useful outcomes

*End-to-end connected health solutions in sleep, respiratory care, and out-of-hospital healthcare*





# Global leadership in digital health

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**AirView™** has over  
**14 million patients**

**1 million+** diagnostic tests  
processed **in the cloud**

**~100 API calls** per  
**second** from integrators

**>12 million**  
**100% cloud connectable**  
devices worldwide

**100+ million** accounts in  
out-of-hospital care network

**2.5 million+** patients have  
signed up for **myAir™**



# Turning big data into actionable information

Pioneering *innovation* and providing *clinical evidence* that support better patient outcomes and improved business efficiencies for customers



## AirView<sup>TM</sup>



Labor  
Costs<sup>2</sup>

↓59%

New  
Patient  
Setups<sup>3</sup>

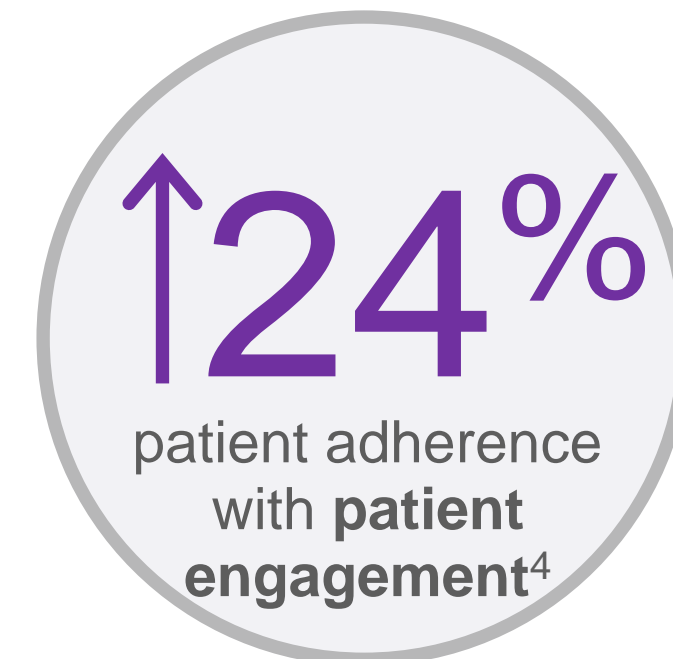
↑55%

## myAir<sup>TM</sup>



World's largest study for adherence

> 128,000 patients



1. Hwang, et al., AJRCCM 2017

2. Munafo, et al. Sleep Breath 2016

3. Data based on monthly patient setups and compliance rates of DME customers from February 2014 – March 2015. Historical results for this provider over the stated time

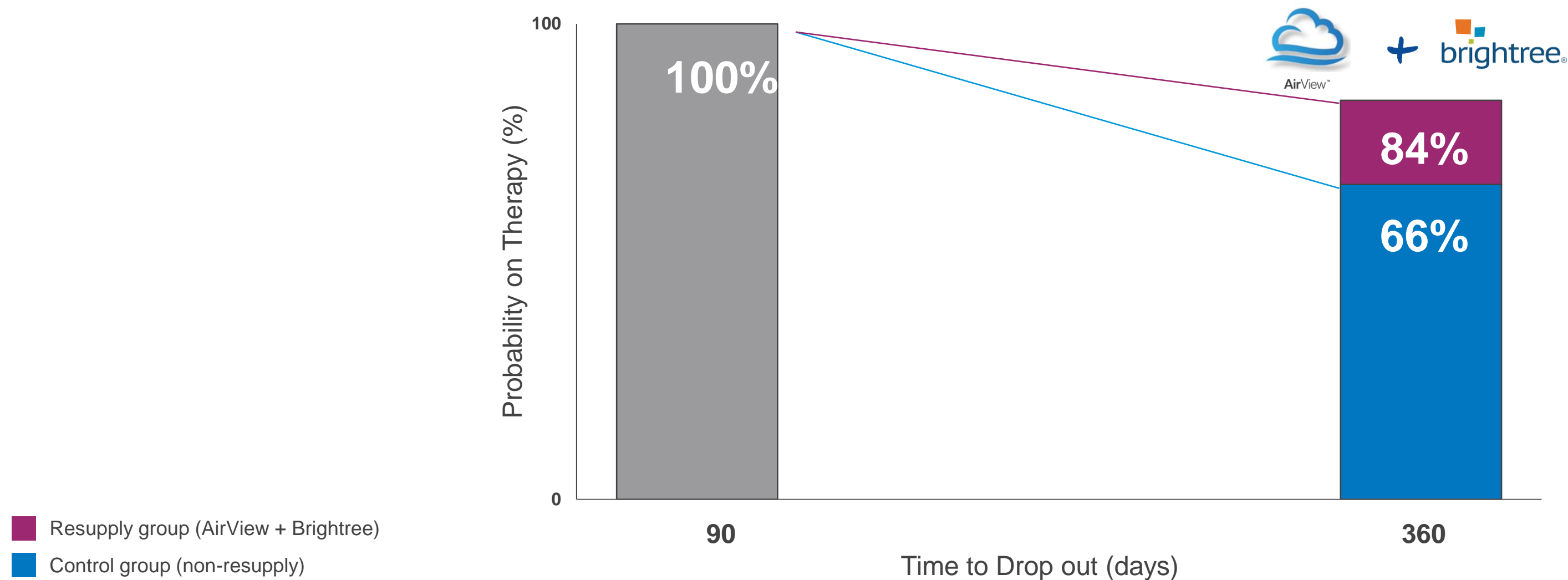
4. Crocker, et al., Abstract CHEST 2016



# Improving adherence to therapy with patient monitoring and resupply

## ResAdhere: remote monitoring + mask resupply drive improved adherence

In a study of ~100k patients with AirView cloud-connected devices...



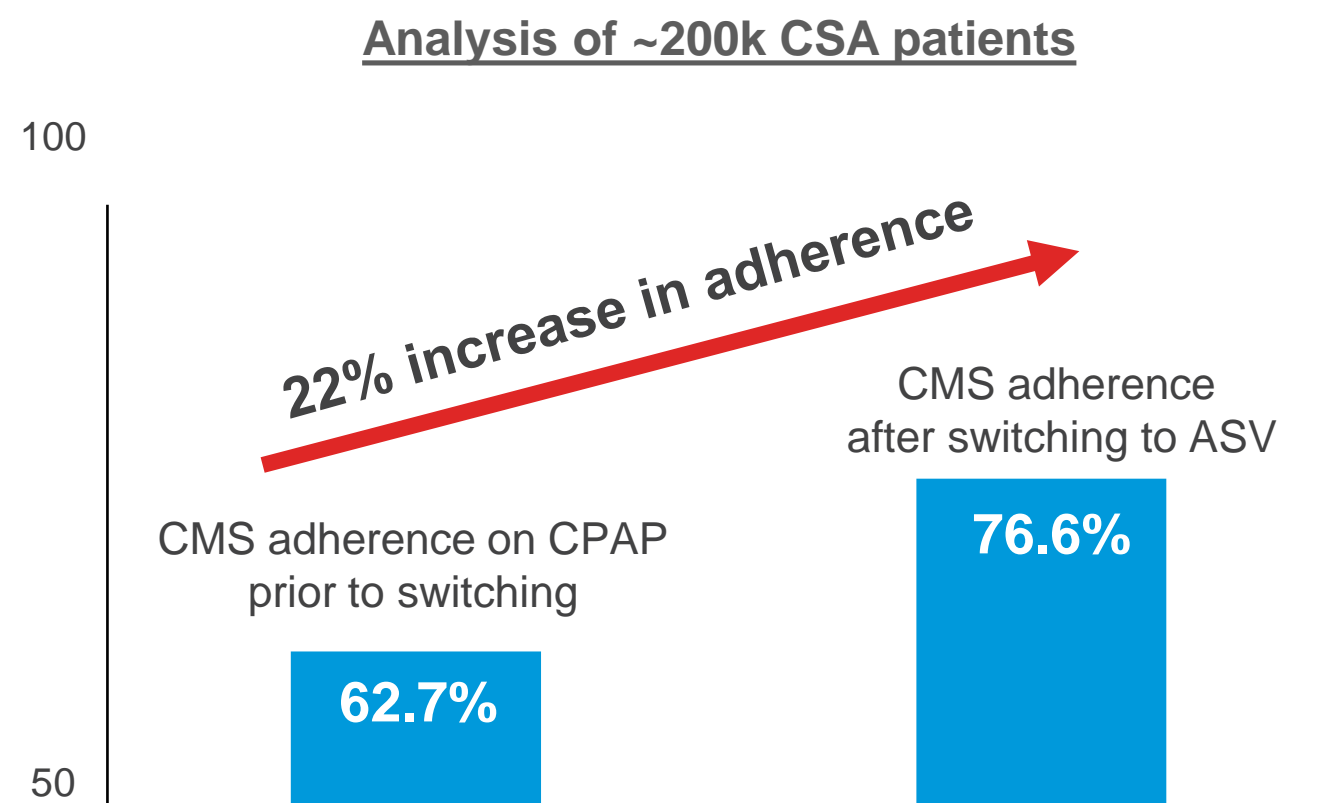
...the likelihood of therapy termination decreased by >50% after one-year  
and there was a significant increase in daily PAP usage



# Big data analysis drives insights for treatment of central sleep apnea

## Patients with treatment-emergent central sleep apnea (CSA) are 2x more likely to terminate therapy

- Opportunity to rethink conventional therapeutic options
- Minimize risk of therapy termination through early diagnosis
- Regularly monitor patients to support adherence to treatment



- Switching from therapy CPAP to ASV improved relative adherence by 22%
- Patients who switched from CPAP to ASV had fewer apneas and hyponeas during sleep



# Digital health solutions for inhaled COPD pharmaceuticals

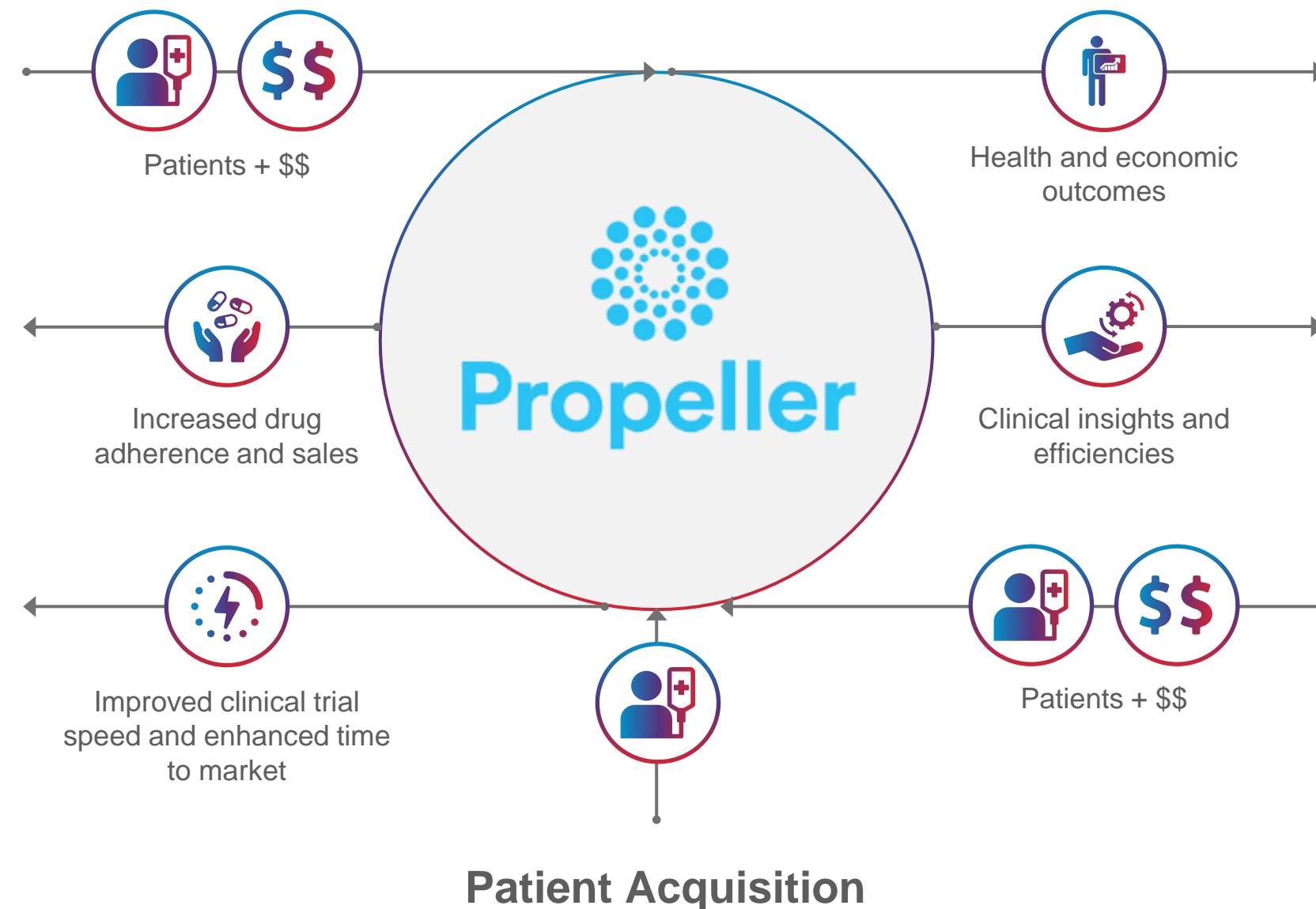
- ResMed now has end-to-end solutions for Digital Health for COPD patients across stages I, II, III, IV of the disease
- Uses sensors with inhalers to track medication usage and provide personal feedback and insights
- Establishes ResMed as a leading provider of COPD and asthma patient management solutions
- Enables digitally-enabled integration of care through the progression of the disease

## UPSTREAM

Customers include:



Pharma companies signed represent 90% of long-acting respiratory inhalation drugs



## DOWNSTREAM

**Payers**

Anthem

**PBM**s

 EXPRESS SCRIPTS®

**Health systems**

 Dignity Health.

**Pharmacies**





# Propeller has demonstrated compelling clinical outcomes

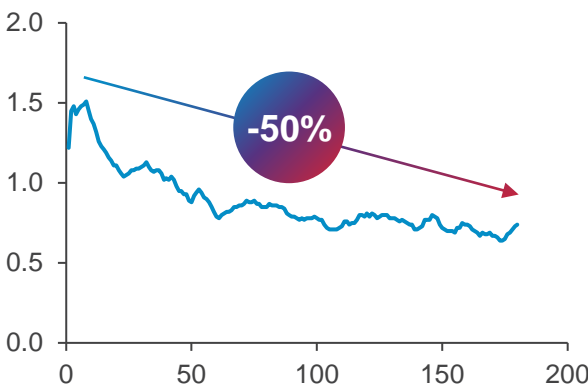


## Impact of the Propeller solution tracking inhaler usage and location

Uncontrolled COPD

SABA use over time

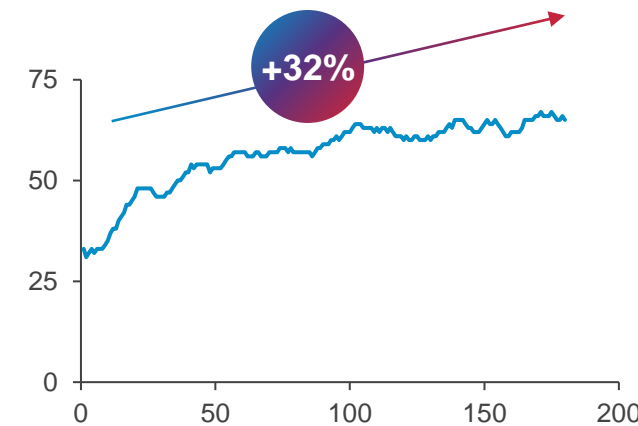
# per day



Drives a decrease in medication

Symptom free days

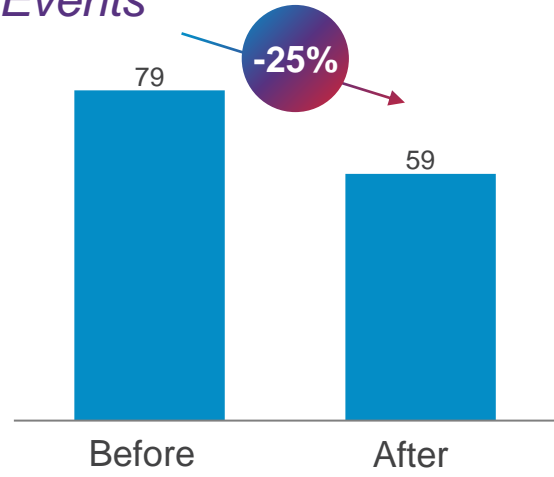
%



Drives an improvement in QOL

Healthcare utilization

Events

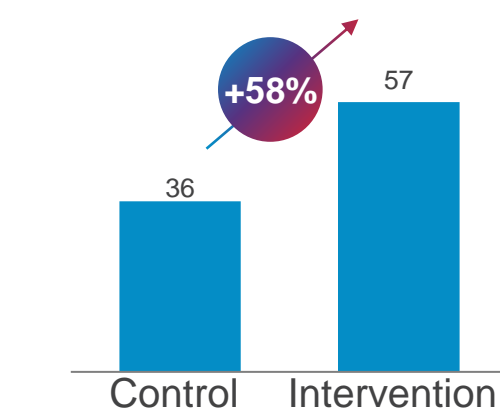


Drives a reduction in healthcare utilization

Uncontrolled Asthma

Adherence

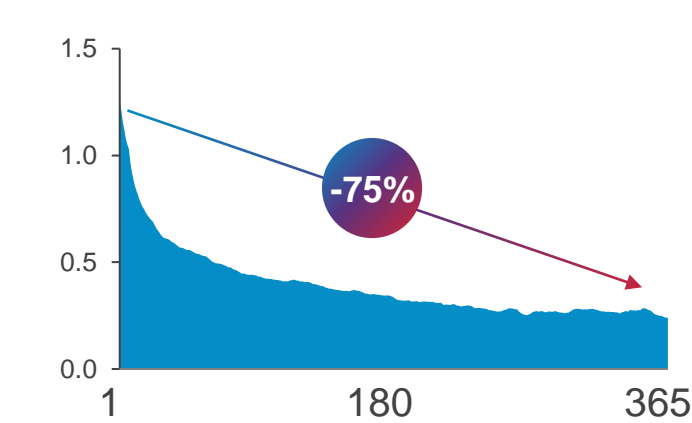
%



Drives an improvement in adherence

QoL: Rescue Inhaler use per day

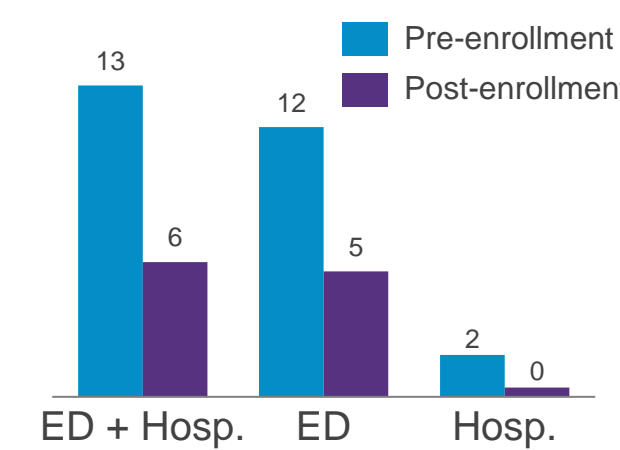
# times used



Drives an improvement in QOL

Acute care utilization

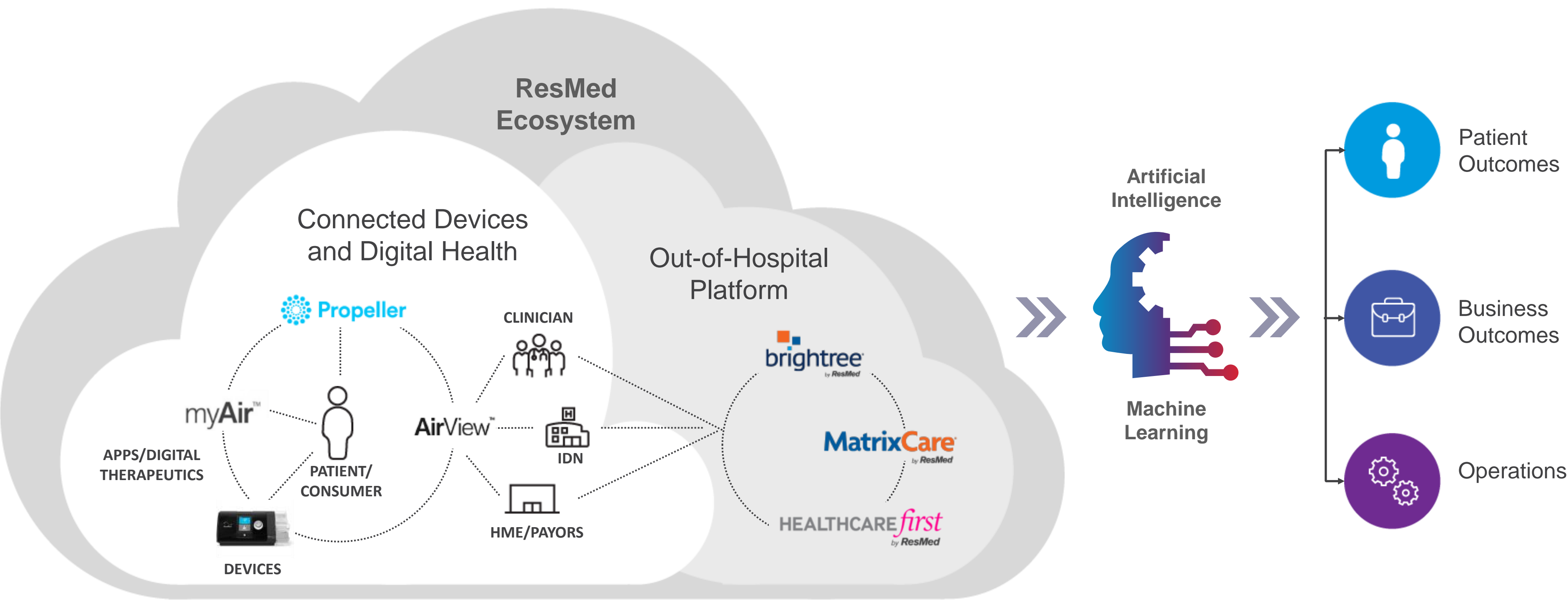
Events per 100 patient years



Drives a reduction in healthcare utilization

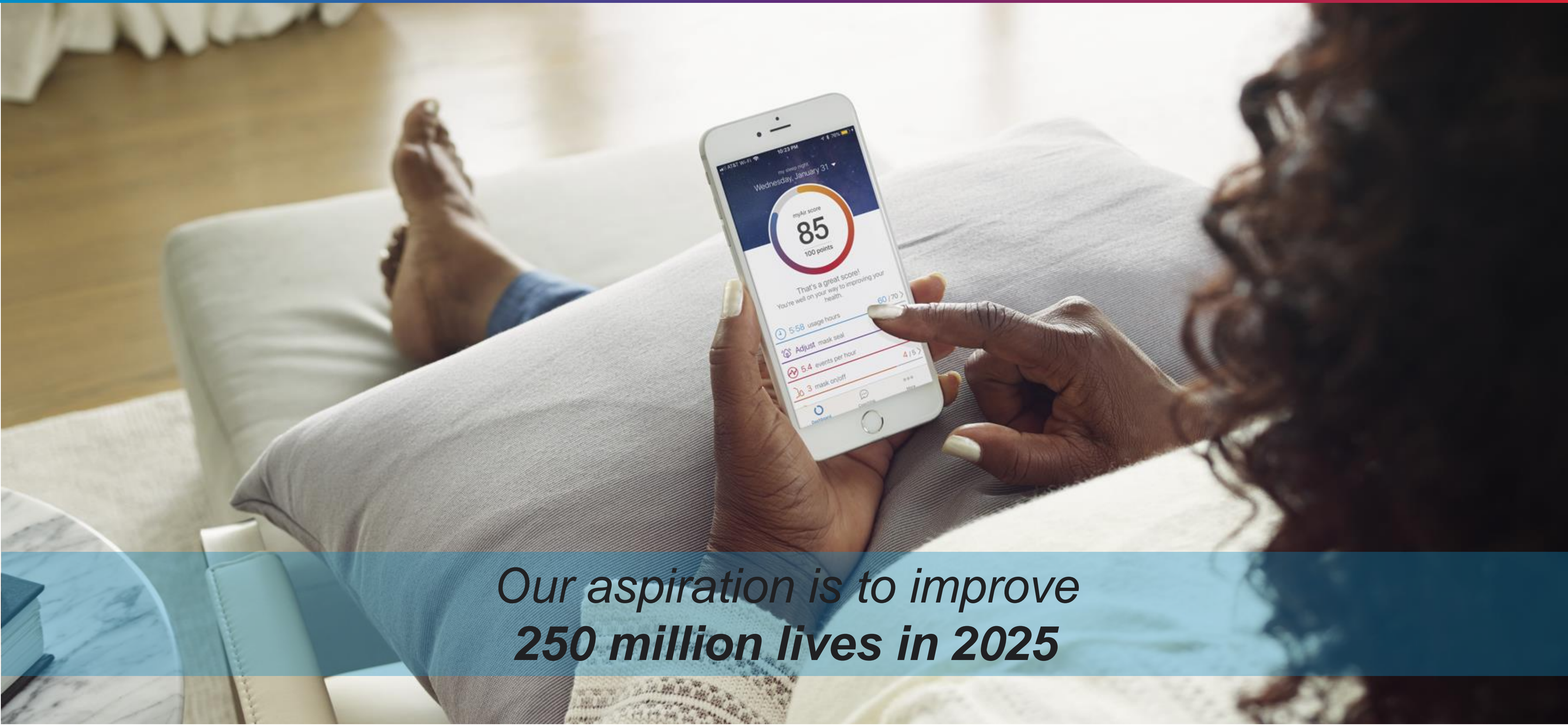


# Our digital health solutions improve outcomes and lower costs





*In the last 12 months, we changed over **115 million lives** with our digital health products and cloud-based software solutions*



*Our aspiration is to improve  
**250 million lives in 2025***



# APPENDIX





# Our response to COVID-19: Focused on preservation of life

## Our ResMed Team

- Work-from-home policy for all employees when job can be performed remotely
- Specific actions to protect and support employees working in our manufacturing and distribution sites, including:
  - split shifts (A/B/C)
  - increased cleaning, personal hygiene, and safety protocols including temperature checks
  - personal protective equipment for all staff (PPE)
- Increased cadence of communications and engagement with employees

## Our Stakeholders

- Fair and ethical allocation of products globally supported by an epidemiological model
- Transitioned manufacturing lines to support production of ventilation products to meet global demand
  - Tripled manufacturing of ventilators
  - Scaled up ventilation mask production more than 10x
- Updated and ongoing clinical information
- Increased digital health technology and remote patient care services for customers

## Business Continuity

- Established key workstreams and a central task force to guide and manage ResMed through the crisis
- Ongoing communication with suppliers and partners to ensure continuity and identify gaps
- Active engagement with key government officials and healthcare systems worldwide
- Ongoing business modeling and scenario planning
- Prudent cash and expense management