

Med Tech

4Q19 HME Oxygen, Sleep, and Complex Rehab Survey

We worked with *HME News* to survey 48 home medical equipment companies (HMEs) about oxygen, sleep, and complex rehab technology products. Over the next 12 months (NTM), respondents expect low-double digit growth in their POC purchases. Inogen's (INGN, Buy) POCs were the highest rated and it looks likely to gain market share over the NTM. Over the NTM, respondents expect very strong sleep patient volume growth but ResMed (RMD, Hold) looks likely to lose market share. Respondents expect only very small changes in oxygen and CPAP reimbursement in Round 2021 of Medicare competitive bidding. Invacare's (IVC, Buy) power wheelchairs were the lowest rated but it looks likely to gain market share over the NTM. We think that the survey results are positive for INGN's domestic B2B business, RMD's domestic sleep business, and IVC's North American Mobility & Seating business.

- Respondents expect double-digit growth in their POC purchases.** POCs are expected to increase from 23.9% of the ambulatory oxygen market to 28.1% over the next 12 months. Respondents expect 11.3% growth in their POC unit purchases over the next 12 months. Applied Home Healthcare's OxyGo (the private label version of INGN's G3) was the highest rated POC at 5.1 out of 7.0, followed by Inogen's G4 and Applied Home Healthcare's OxyGo Fit (the private label version of INGN's G4) at 5.0. And INGN looks likely to gain market share. Over the NTM, respondents expect INGN/Applied Home Healthcare's share of their POC purchases to increase by 1.8%.
- Respondents expect mid-teens growth in sleep patient volume.** Respondents saw their sleep patient volume increase by 15.0% in the last 12 months (LTM) and expect their sleep patient volume to grow by 15.5% in NTM. Both of these growth rates are well above our prior survey results of 10.0% and 11.2%, respectively. However, RMD looks likely to lose market share. Over the NTM, respondents expect RMD's share of their flow generator purchases to decrease by 0.4% and its share of their mask purchases to decrease by 2.8%.
- Flow generator pricing improved slightly while mask pricing worsened slightly.** Respondents indicated that flow generator prices declined by 1.0% over the LTM (vs. a 2.0% decline in our prior survey), while mask prices declined by 1.1% over the LTM (vs. a 0.2% decline in prior survey).
- Respondents expect very small changes in oxygen and CPAP reimbursement in Round 2021 of competitive bidding.** Contracts for Medicare's latest round of its competitive bidding program (Round 2021) will start on 1/1/21. Respondents expect Medicare oxygen reimbursement to increase by an average of 0.1% and Medicare CPAP reimbursement to decline by an average of 0.6%.
- IVC looks likely to gain power wheelchair market share.** Sunrise had the highest rated power wheelchairs (Medicare coded group 3) at 6.2 out of 7.0, followed by Quantum/Pride Mobility at 5.8, Permobil at 5.7, and IVC at 5.0. But despite the ratings, respondents expect IVC's share of their power wheelchair purchases to increase by 1.2% over the NTM.

Topic of Discussion

Oxygen, Sleep, and Complex Rehab Technology Equipment Markets

CONTRIBUTING ANALYSTS

MIKE MATSON, CFA

(617) 457-0949

mmatson@needhamco.com

DAVID SAXON, CFA

(617) 457-0922

dsaxon@needhamco.com

MENTIONED COMPANIES

INGN: \$46.75, PT: \$80.00

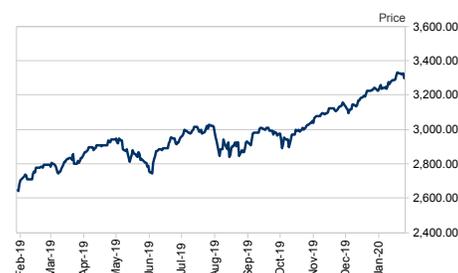
IVC: \$8.57, PT: \$17.00

RMD: \$162.39, PT: NA

SECTOR CHART

S&P (SP50)

01/27/20



INTRODUCTION

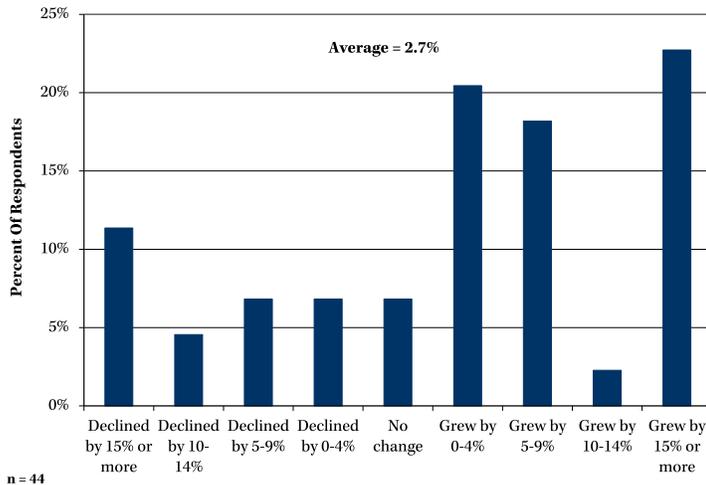
Needham & Company and *HME News* worked together to survey U.S. home medical equipment providers (HMEs) about the sleep and oxygen equipment markets. We received 48 responses to our survey and we note that response rates varied from question to question since none of the questions were mandatory (the response rate for each question is shown on the charts). The survey replies were received between 12/10/19 and 1/14/20.

PART 1: OXYGEN QUESTIONS

RESPONDENTS EXPECT FASTER OXYGEN PATIENT VOLUME GROWTH COMPARED TO OUR PRIOR SURVEY

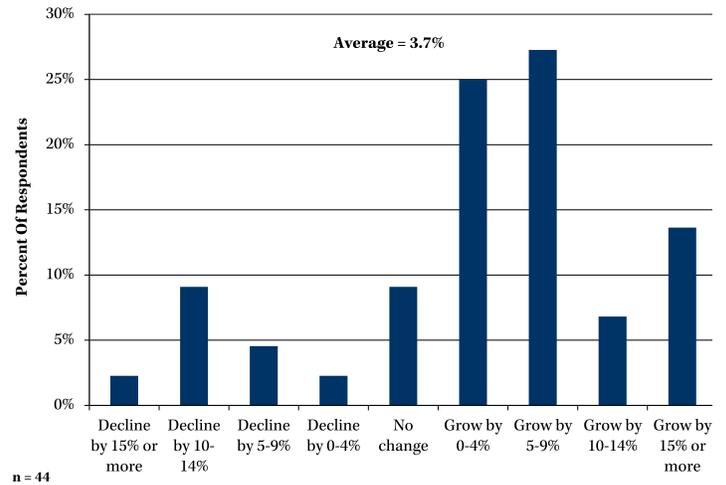
On average, respondents reported 2.7% oxygen patient volume growth in the last 12 months, which is an improvement from the 0.7% growth reported in our 2Q19 survey. And respondents expect 3.7% growth in the next 12 months, which is an improvement from the 3.7% growth expected in our 2Q19 survey. Of the respondents, 30% saw a decline in their oxygen patient volume in the last 12 months and 18% expect a decline in the next 12 months.

Figure 1 - Oxygen Patient Volume Growth (LTM)



Source: Needham & Company 4Q19 HME Survey

Figure 2 - Oxygen Patient Volume Growth (NTM)

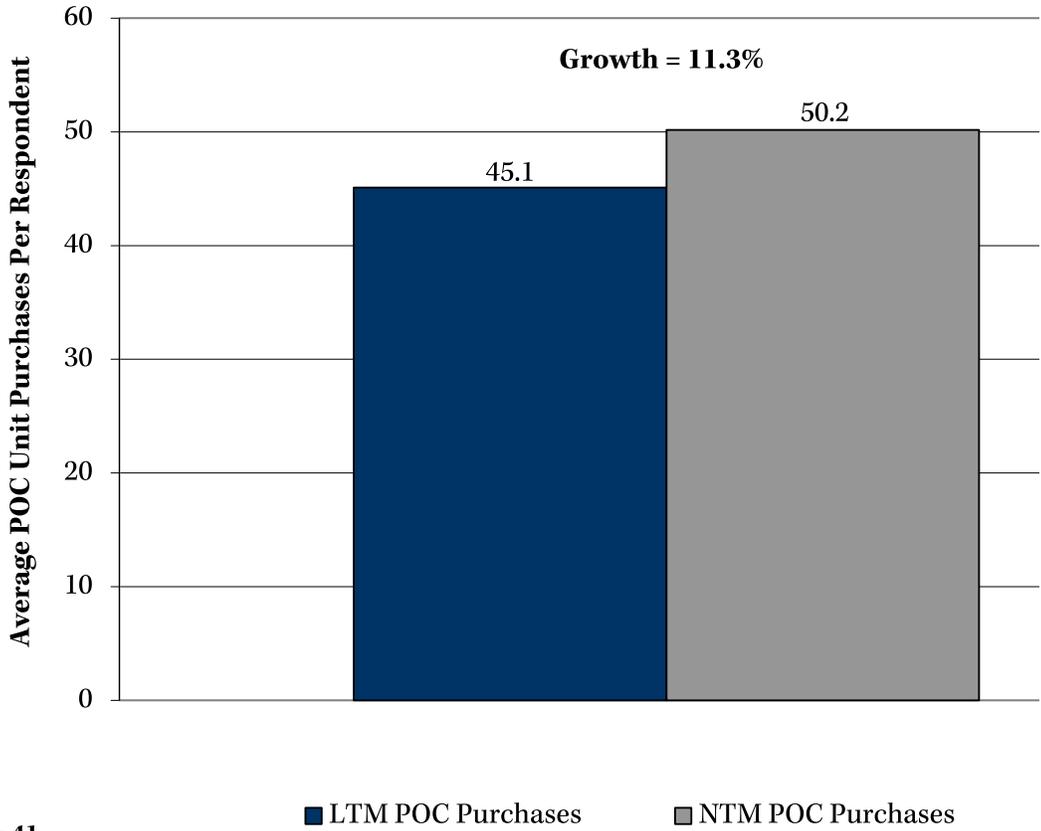


Source: Needham & Company 4Q19 HME Survey

RESPONDENTS EXPECT DOUBLE-DIGIT GROWTH IN POC UNIT PURCHASES OVER THE NEXT 12 MONTHS

We asked survey respondents how many POCs they purchased in the past 12 months and how many they expect to purchase in the next 12 months to try to predict what POC unit volume growth in Inogen’s domestic B2B channel. Respondents report purchasing an average of 45.1 POC units in the last 12 months and expect to purchase 50.2 POC units in the next 12 months which implies growth of 11.3% (up from 2.6% growth in our 2Q19 survey).

Figure 3 - Expected POC Volume Growth



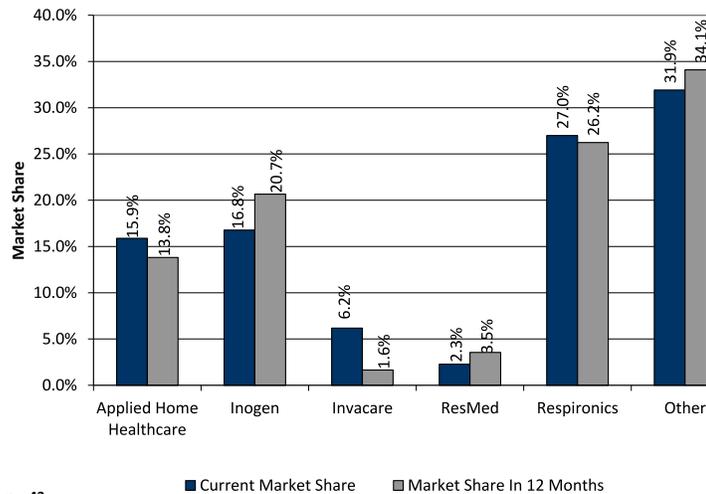
n = 41

Source: Needham & Company 4Q19 HME Survey

INOGEN LOOKS LIKELY TO GAIN SOME POC MARKET SHARE IN THE NEXT 12 MONTHS

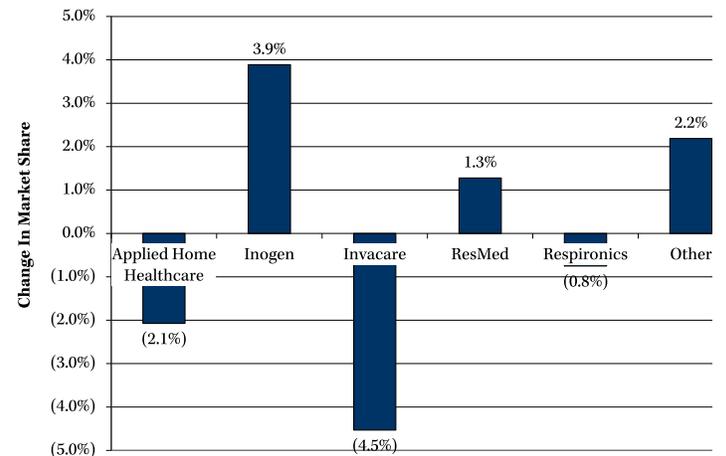
Inogen's POC market share may increase by 3.9% over the next 12 months while its private label partner Applied Home Healthcare's POC market share may decrease by 2.1% over the next 12 months for a net increase of 1.8%. Respondents indicated that Inogen's and Applied Home Healthcare's POCs currently make up a combined 32.7% of their purchases and expect this to decrease to 34.5% in the next 12 months. ResMed's market share may increase by 1.3% over the next 12 months while Respirationics' and Invacare's market share may decrease by 0.8% and 4.5%, respectively, over the next 12 months. And the other smaller manufacturers' market share may increase by 2.2% over the next 12 months.

Figure 4 - POC Market Share



n = 43

Figure 5 - Change in POC Market Share



n = 43

Source: Needham & Company 4Q19 HME Survey

Source: Needham & Company 4Q19 HME Survey

HMEs CONTINUE TO SHIFT FROM OXYGEN TANKS TO NON-DELIVERY MODES

While delivered tanks currently represent 48.9% of the ambulatory oxygen market, HMEs expect these to see the biggest decline, by 5.6%, to 43.3% of the market over the next 12 months. Delivered tanks are mostly expected to be replaced by POCs and HomeFill systems, which are expected to increase by 4.2% from 23.9% of the market to 28.1% and by 3.7% from 21.0% of the market to 24.8% over the next 12 months, respectively.

Figure 6 - What Portion of your Firm's Ambulatory Oxygen Patients Use the Following Modes

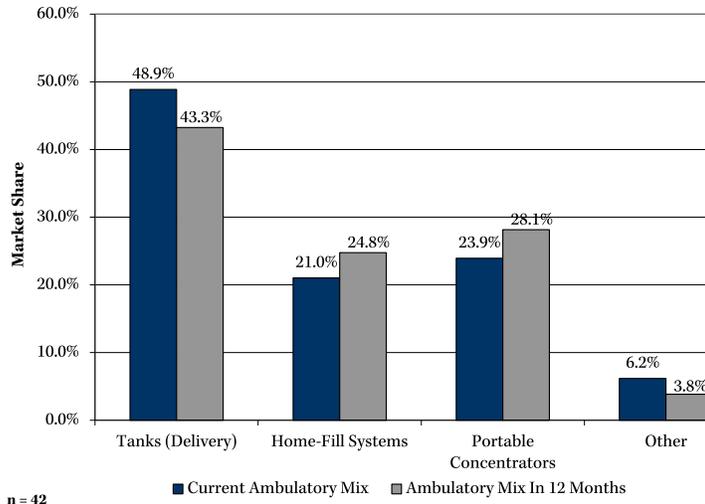
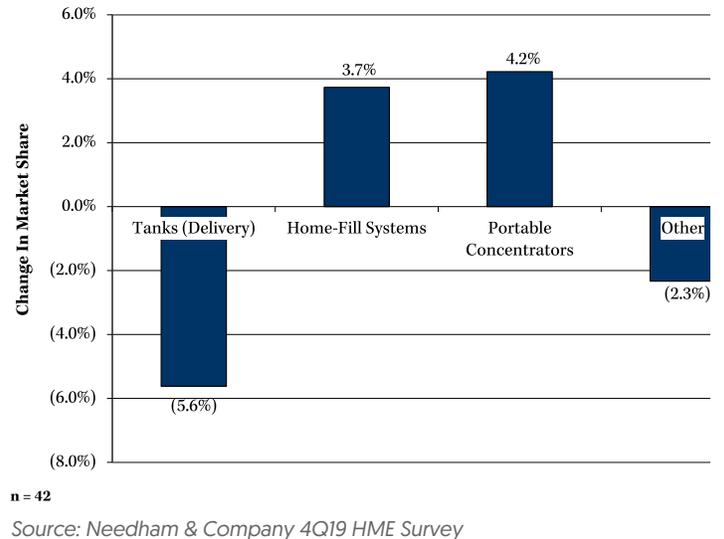


Figure 7 - Change in Ambulatory Oxygen Market Modes

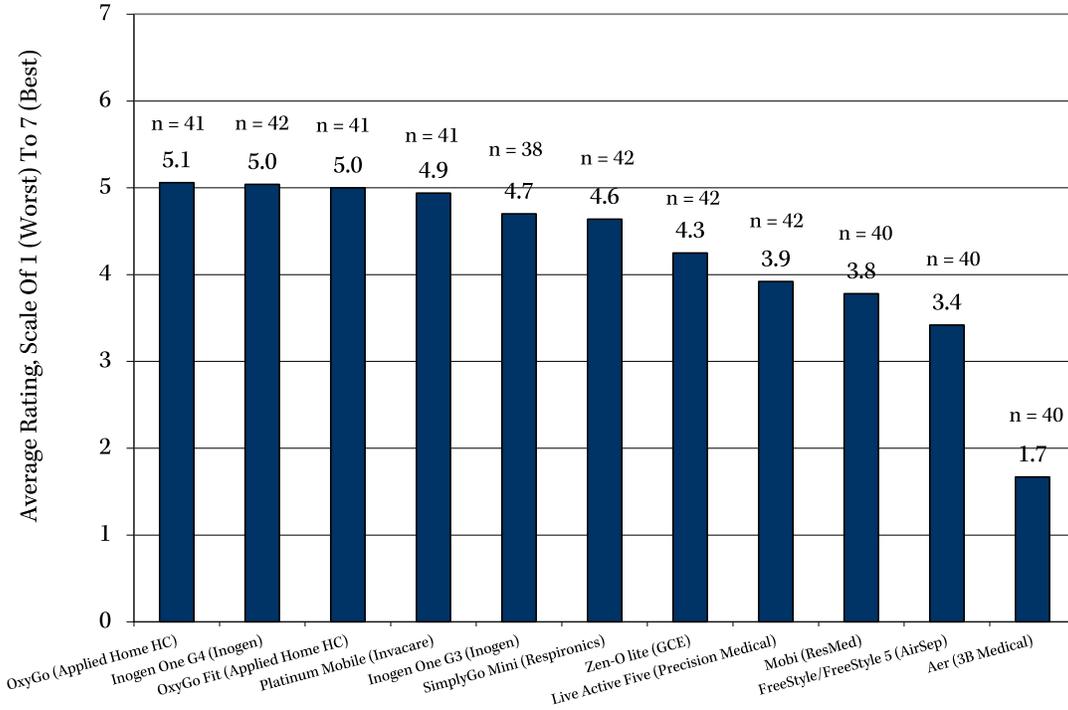


Source: Needham & Company 4Q19 HME Survey

APPLIED HOME HEALTHCARE'S OXYGO POCs (WHICH ARE PRIVATE LABEL VERSIONS OF INOGEN'S POCs) RECEIVED THE HIGHEST RATINGS

Applied Home Healthcare's OxyGo (the private label version of Inogen's G3) was the highest rated POC at 5.1 out of 7.0, followed by Inogen's G4 and Applied Home Healthcare's OxyGo Fit (the private label version of Inogen's G4) both at 5.0, and Invacare's Platinum Mobile rated 4.9. In contrast, Respironics' SimplyGo Mini was rated 4.6 and ResMed's Mobi was rated 3.8.

Figure 8 - Portable Oxygen Concentrator Ratings

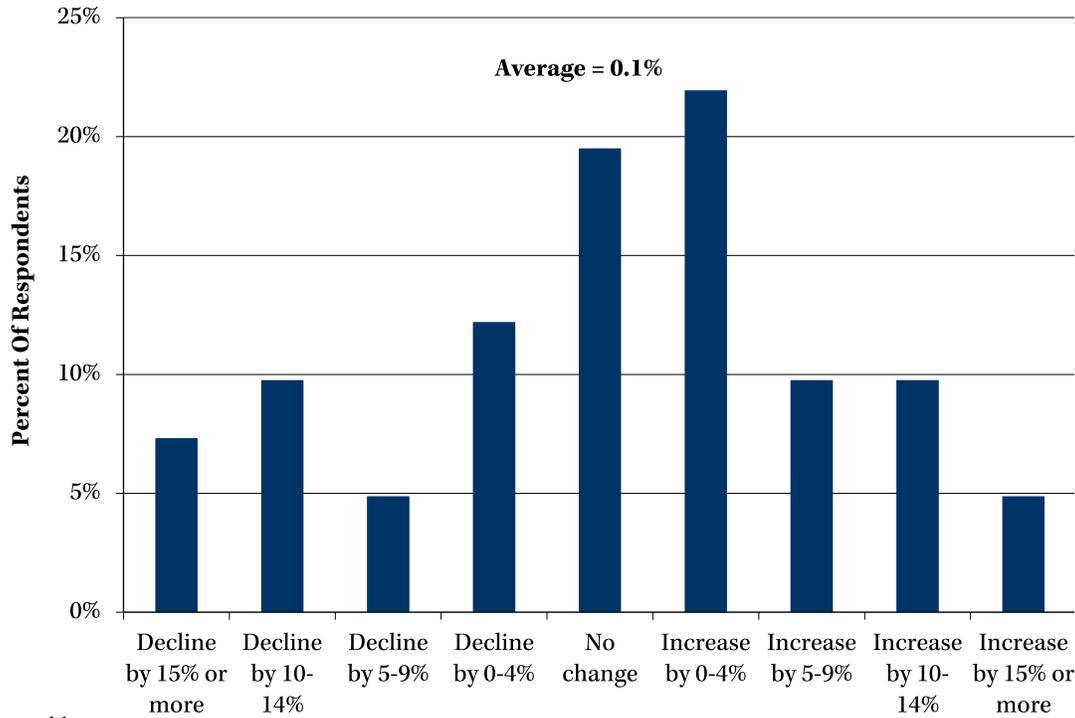


Source: Needham & Company 4Q19 HME Survey

OXYGEN REIMBURSEMENT IS EXPECTED TO BE STABLE IN ROUND 2021 OF MEDICARE COMPETITIVE BIDDING

Respondents indicated that they expect oxygen reimbursement to decline by an average of 0.1% following the next round of Medicare competitive bidding in 2021.

Figure 9 - Expected Reimbursement Impact of Round 2021 of Medicare's Competitive Bidding



n = 41

Source: Needham & Company 4Q19 HME Survey

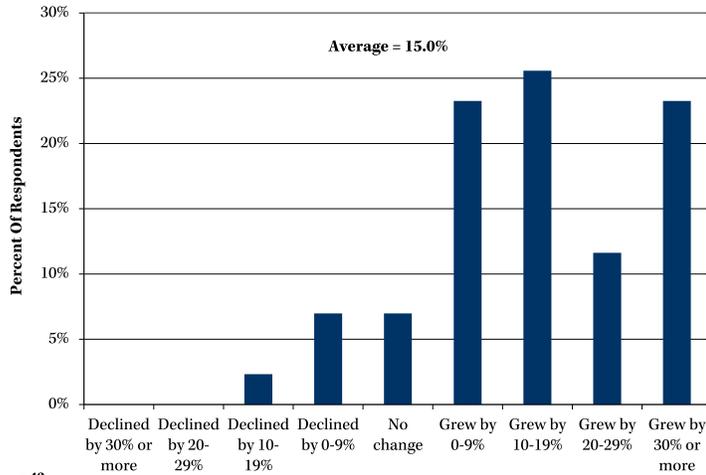
PART 2: SLEEP QUESTIONS

RESPONDENTS EXPECT FASTER SLEEP PATIENT VOLUME GROWTH COMPARED TO OUR PRIOR SURVEY

In our earlier surveys, we asked HMEs about their sleep revenue growth. However, we switched to asking about patient volume growth instead, starting with our 4Q13 survey, since revenue growth is affected by reimbursement changes and since we think that patient volume growth is more important for ResMed. As a result of this change, the responses to this question are not directly comparable to our prior surveys, although we have added these results to our time series chart in Figure 12.

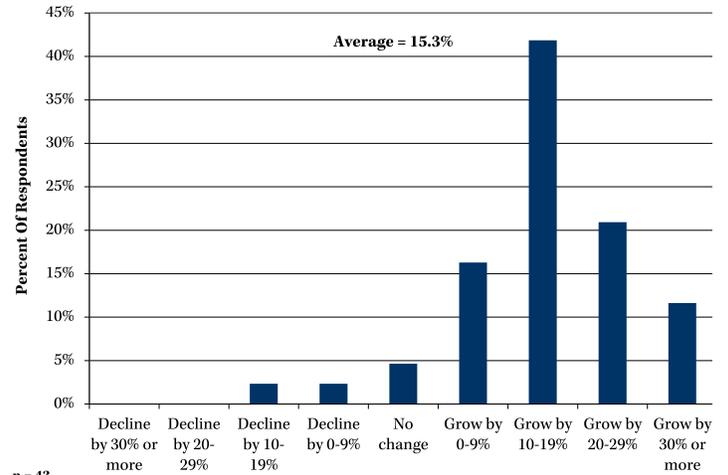
On average, respondents reported 15.0% sleep patient volume growth in the last 12 months, which is an improvement from the 10.0% growth reported in our 2Q19 survey. And respondents expect 15.3% growth in the next 12 months, which is an improvement from the 11.2% growth expected in our 2Q19 survey. Of the respondents, just 9% saw a decline in their sleep patient volume in the last 12 months and just 5% expect a decline in the next 12 months.

Figure 10 - Sleep Patient Volume Growth (LTM)



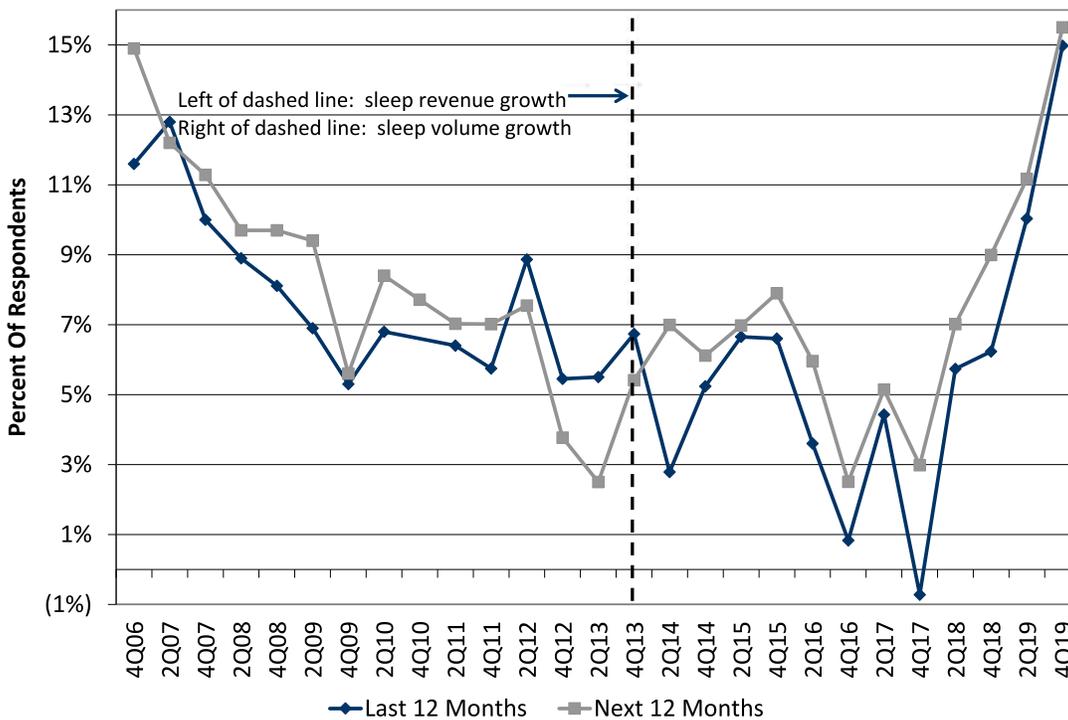
Source: Needham & Company 4Q19 HME Survey

Figure 11 - Sleep Patient Volume Growth (NTM)



Source: Needham & Company 4Q19 HME Survey

Figure 12 - Sleep Revenue/Volume Growth (Time Series)



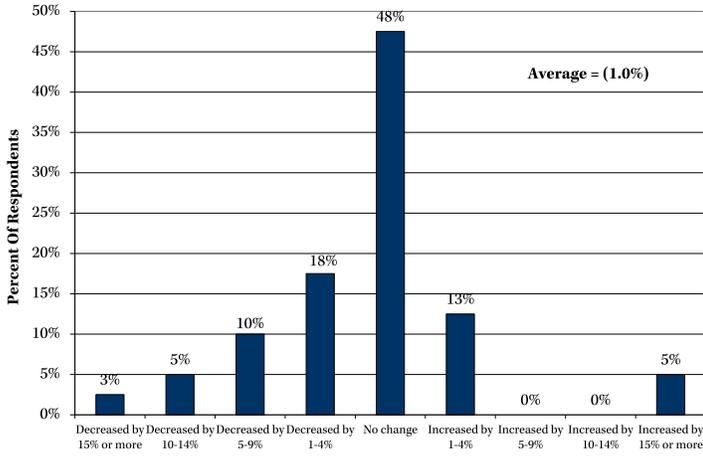
Source: Needham & Company 4Q19 HME Survey

FLOW GENERATOR PRICING IMPROVED SLIGHTLY FROM OUR PRIOR SURVEY

Respondents indicated that flow generator prices declined by 1.0% in the last 12 months versus a 2.0% decline in our 2Q19 survey. This marks an improvement from our prior survey and a continuation of the improving longer-term trend since 2014.

Figure 13 - Change in Flow Generator Prices (LTM)

Figure 14 - Change in Flow Generator Prices (Time Series)

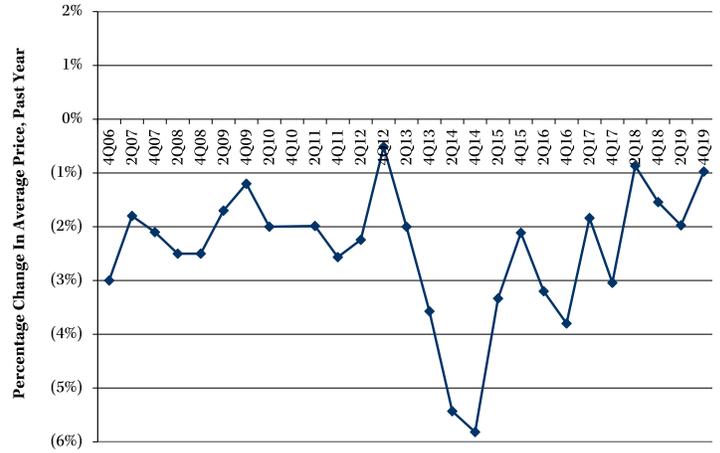


n = 40

Source: Needham & Company 4Q19 HME Survey

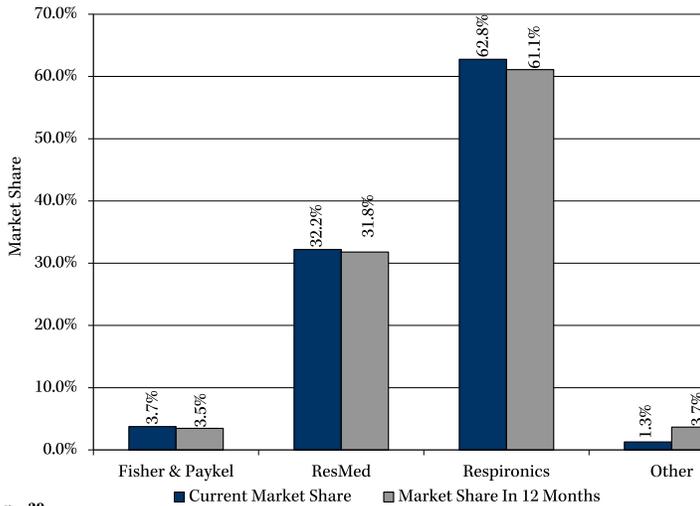
RESMED LOOKS LIKELY TO LOSE SOME FLOW GENERATOR MARKET SHARE IN THE NEXT 12 MONTHS

ResMed's flow generator market share may decrease by 0.4% over the next 12 months. Respondents indicated that ResMed's flow generators currently make up 32.2% of their purchases and expect this to decrease to 31.8% in the next 12 months. Respironics' and Fisher & Paykel's flow generator market share may decrease by 1.7% and 0.3%, respectively, over the next 12 months while the other smaller manufacturers' market share may increase by 2.4% over the next 12 months.



Source: Needham & Company 4Q19 HME Survey

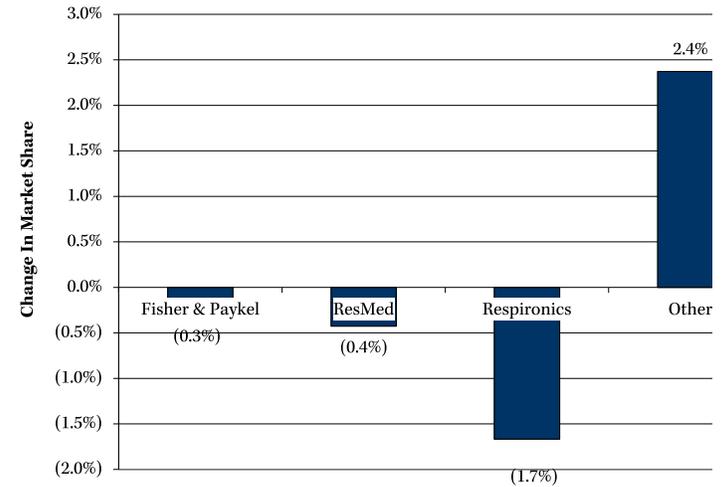
Figure 15 - Flow Generator Market Share



n = 39

Source: Needham & Company 4Q19 HME Survey

Figure 16 - Change in Flow Generator Market Share



n = 39

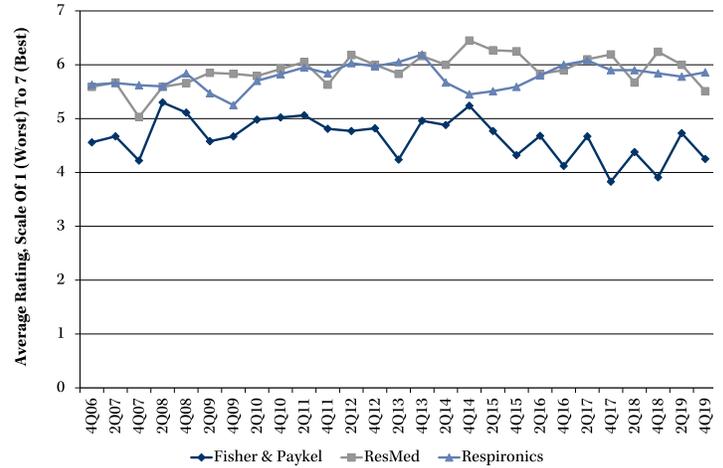
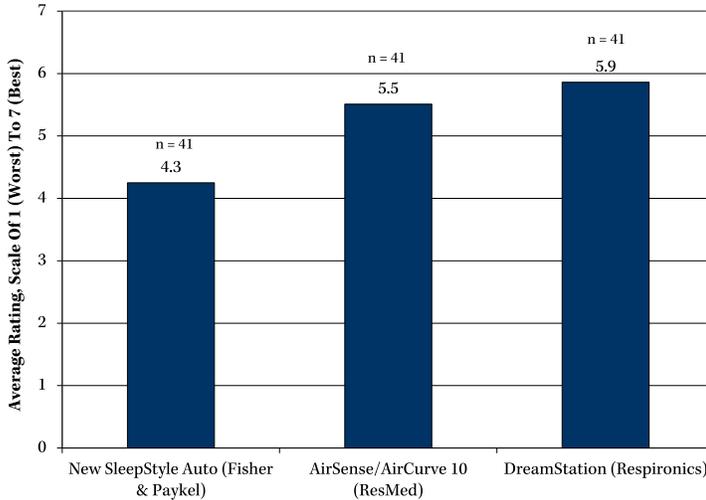
Source: Needham & Company 4Q19 HME Survey

RESMED'S FLOW GENERATORS CEDE THE TOP RATED POSITION

ResMed's AirSense 10 flow generator platform was rated 5.5 out of 7.0, below Respironics' DreamStation flow generator platform, which was rated 5.9 and well above Fisher & Paykel's New SleepStyle Auto flow generator platform at 4.3. This survey is different than our 2Q19 survey where ResMed's flow generator platform held the top-rated spot.

Figure 17 - Flow Generator Platform Ratings

Figure 18 - Flow Generator Platform Ratings (Time Series)



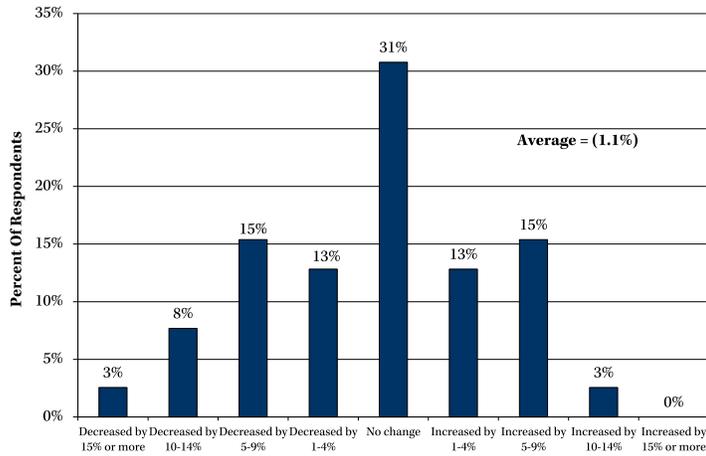
Source: Needham & Company 4Q19 HME Survey

Source: Needham & Company 4Q19 HME Survey

MASK PRICING WORSENERD FROM OUR PRIOR SURVEY

Respondents indicated that mask prices declined by 1.1% in the last 12 months versus a 0.2% decline in our 2Q19 survey. This represents a reversal from five consecutive surveys of mask pricing improvement.

Figure 19 - Change in Mask Prices (LTM)



n = 39

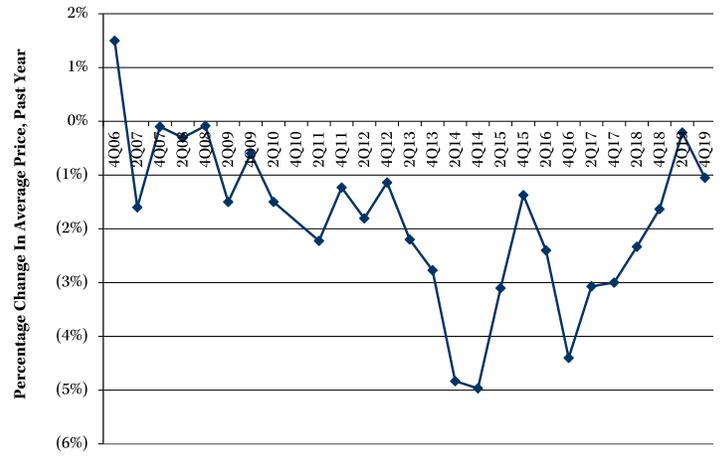
Source: Needham & Company 4Q19 HME Survey

RESMED LOOKS LIKELY TO LOSE MASK MARKET SHARE IN THE NEXT 12 MONTHS

ResMed's mask market share may decline by 2.8% over the next 12 months. Respondents indicated that ResMed's masks currently make up 37.3% of their purchases and expect this to decrease to 34.5% in the next 12 months. Respironics' and Fisher & Paykel's mask market share may increase by 0.9% and 0.9%, respectively, over the next 12 months while the other smaller manufacturers' market share may increase by 1.0% over the next 12 months.

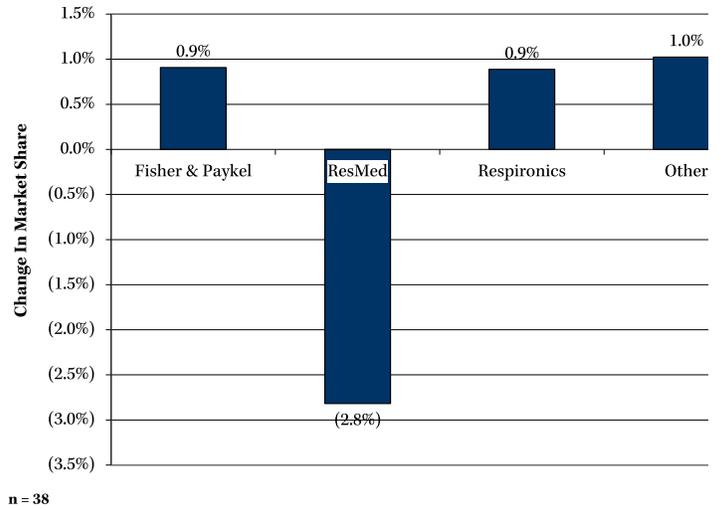
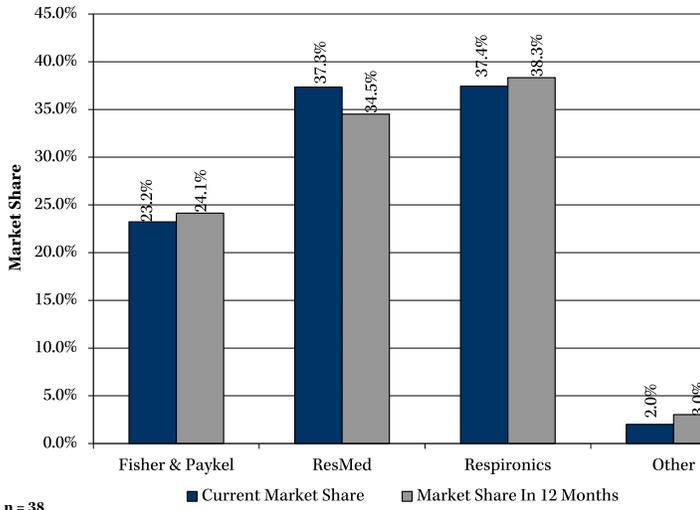
Figure 21 - Mask Market Share

Figure 20 - Change in Mask Prices (Time Series)



Source: Needham & Company 4Q19 HME Survey

Figure 22 - Change in Mask Market Share



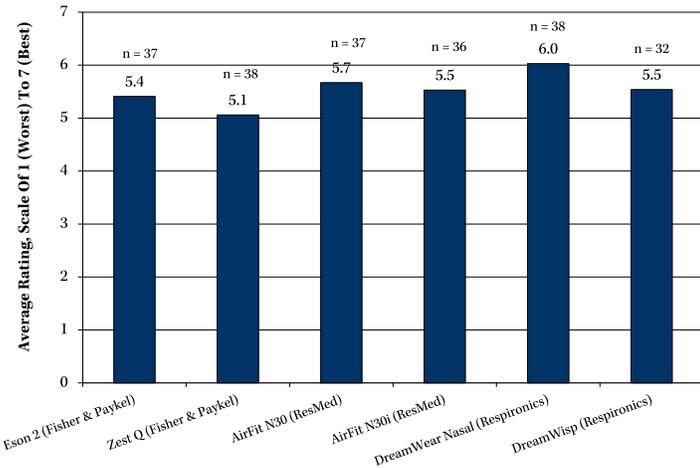
Source: Needham & Company 4Q19 HME Survey

Source: Needham & Company 4Q19 HME Survey

RESMED HAD THE SECOND HIGHEST RATED NASAL MASK...

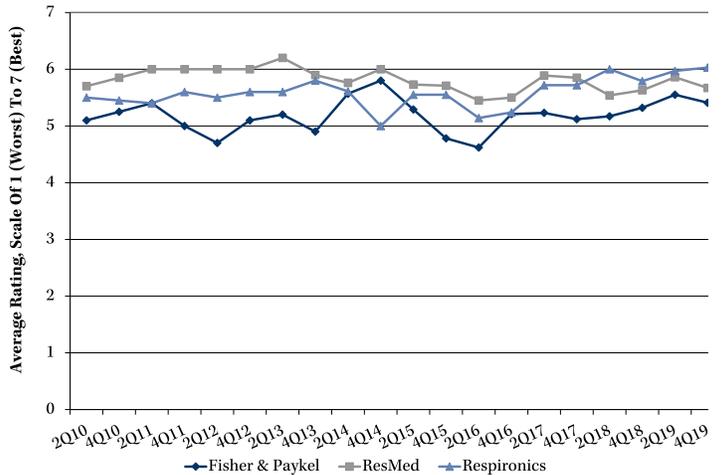
Respirationics' nasal masks were the highest rated for the fourth consecutive survey, according to our survey's respondents, followed by ResMed in second place and Fisher & Paykel in third place. In standard nasal masks, Respirationics' DreamWear Nasal was rated 6.0 out of 7.0, followed by ResMed's AirFit N30 at 5.7, ResMed's AirFit N30i and Respirationics' DreamWisp both at 5.5, and Fisher & Paykel's Eson 2 and Zest Q at 5.4 and 5.1, respectively.

Figure 23 - Nasal Mask Ratings



Source: Needham & Company 4Q19 HME Survey

Figure 24 - Nasal Mask Ratings (Time Series)



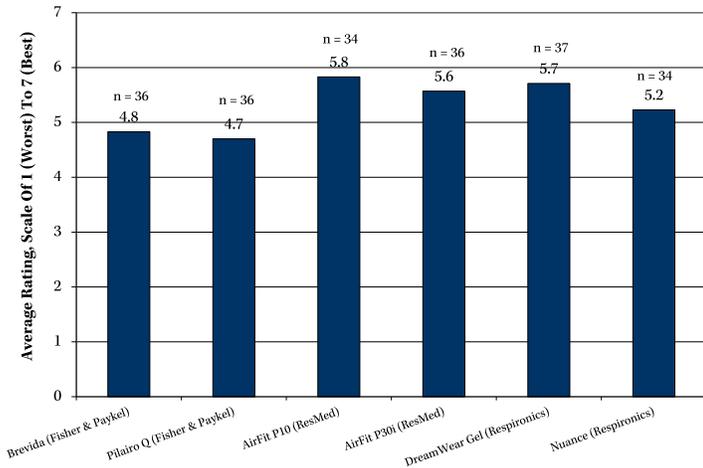
Source: Needham & Company 4Q19 HME Survey

...THE HIGHEST RATED NASAL PILLOW MASK...

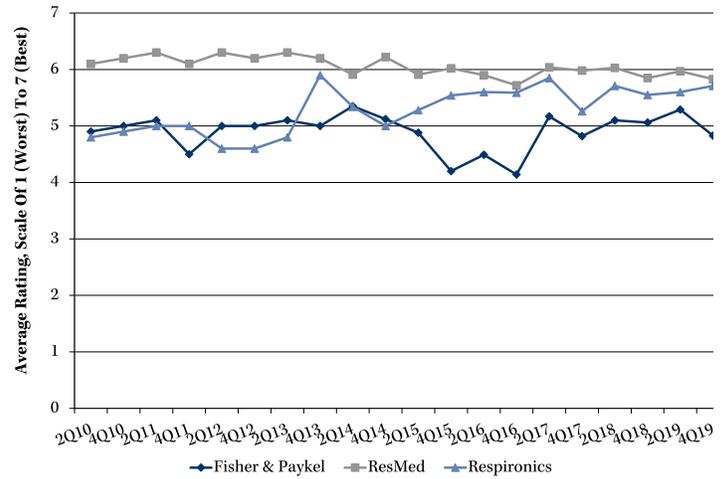
ResMed maintained the highest ratings in the nasal pillow category followed by Respirationics in second place and Fisher & Paykel in third place. ResMed's AirFit P10 was rated the highest at 5.8 out of 7.0, with Respirationics' DreamWear Gel rated 5.7, ResMed's P30i rated 5.6, Respirationics' Nuance rated 5.2, Fisher & Paykel's Brevida rated 4.8, and Fisher & Paykel's Pilairo Q rated 4.7.

Figure 25 - Nasal Pillow Mask Ratings

Figure 26 - Nasal Pillow Mask Ratings (Time Series)



Source: Needham & Company 4Q19 HME Survey

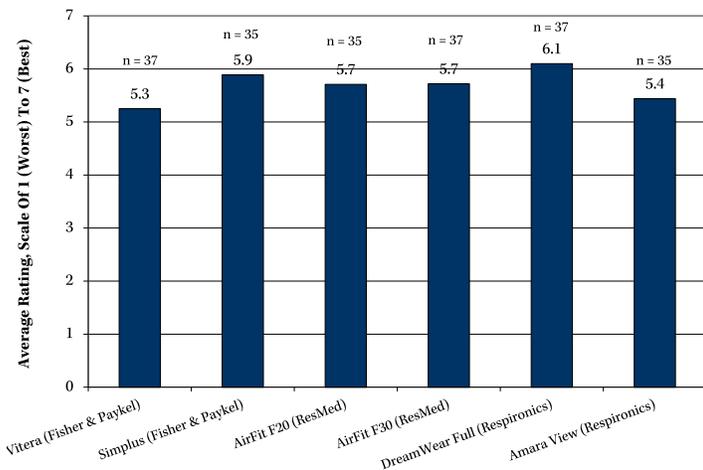


Source: Needham & Company 4Q19 HME Survey

...AND THIRD HIGHEST RATED FULL FACE MASK

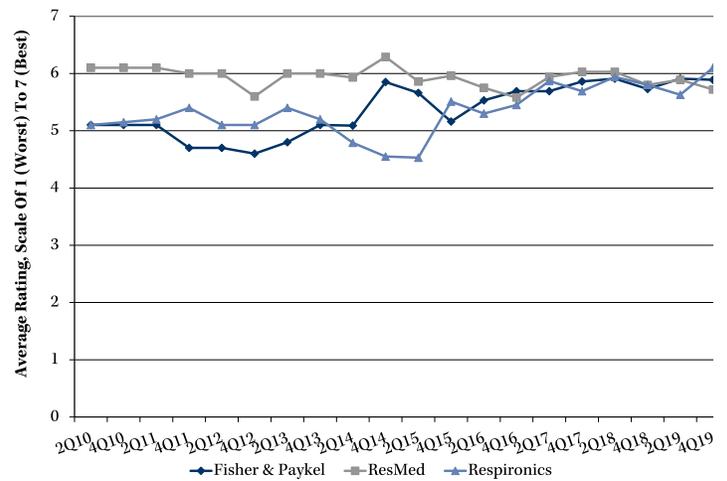
Respironics had the highest rating in the full face mask category followed by Fisher & Paykel and ResMed. Respironics' DreamWear Full was rated 6.1 out of 7.0 followed by Fisher & Paykel's Simplus at 5.9, ResMed's AirFit F20 and AirFit F30 both at 5.7, Respironics' Amara View at 5.4, and Fisher & Paykel's Vitera at 5.3

Figure 27 - Full Face Mask Ratings



Source: Needham & Company 4Q19 HME Survey

Figure 28 - Full Face Mask Ratings (Time Series)

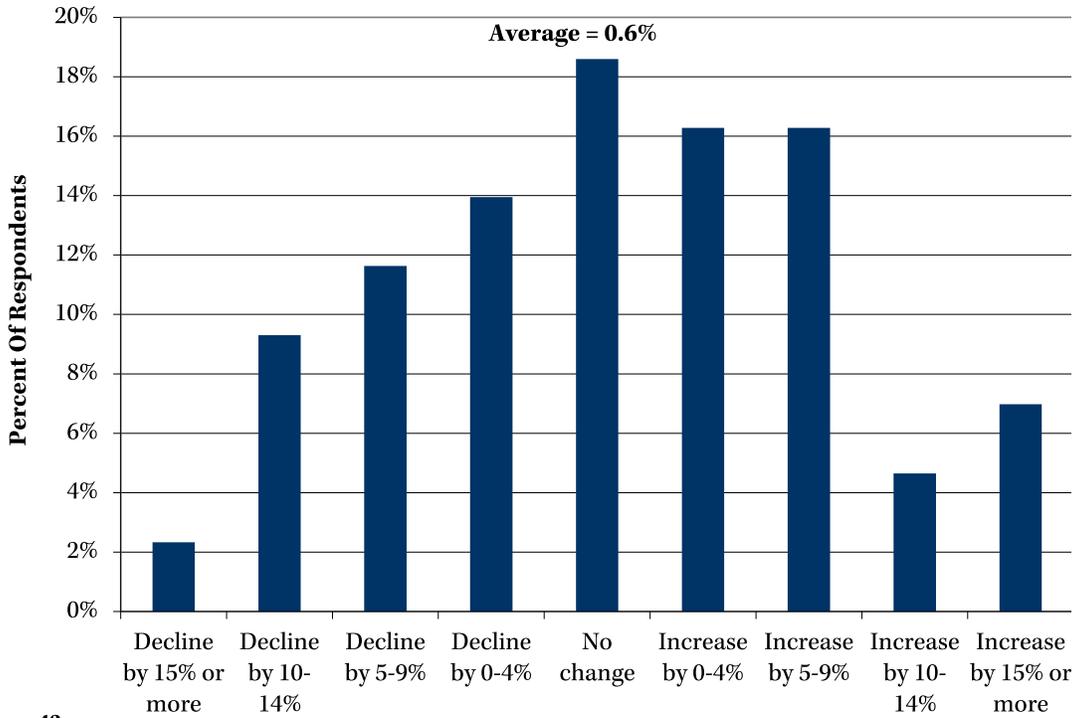


Source: Needham & Company 4Q19 HME Survey

CPAP REIMBURSEMENT IS EXPECTED TO SEE ONLY A SMALL DECLINE IN ROUND 2021 OF MEDICARE COMPETITIVE BIDDING

Respondents indicated that they expect CPAP reimbursement to decline by an average of 0.6% following the next round of Medicare competitive bidding in 2021.

Figure 29 - Expected Reimbursement Impact of Round 2021 of Medicare's Competitive Bidding



n = 43

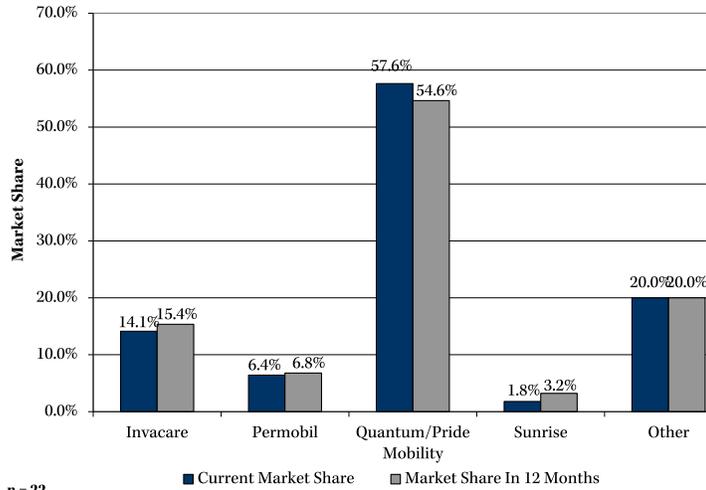
Source: Needham & Company 4Q19 HME Survey

PART 3: COMPLEX REHAB TECHNOLOGY QUESTIONS

INVACARE LOOKS LIKELY TO GAIN POWER WHEELCHAIR MARKET SHARE IN THE NEXT 12 MONTHS

Invacare’s power wheelchair market share may increase by 1.2% over the next 12 months. Respondents indicated that Invacare’s power wheelchairs currently make up 14.1% of their purchases and expect this to increase to 15.4% in the next 12 months. Quantum/Pride Mobility’s power wheelchair market share may decrease by 3.0% while Permobil’s and Sunrise’s power wheelchair market share may increase by 0.4% and 1.4%, respectively. And the other smaller manufacturers’ market share may remain flat over the next 12 months.

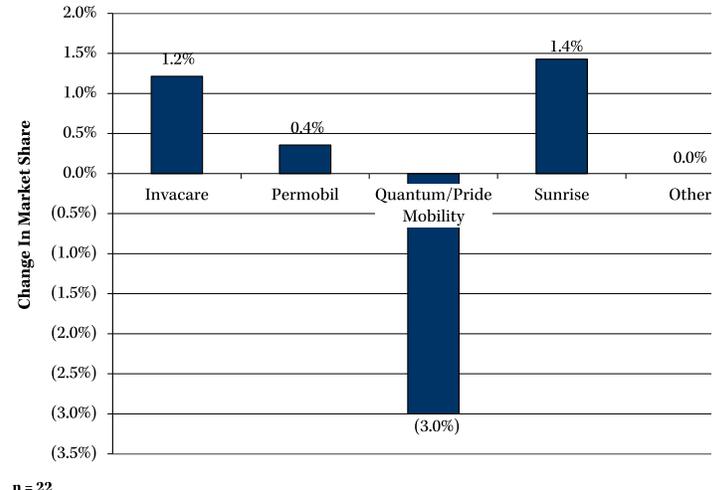
Figure 30 - Power Wheelchair Market Share



Source: Needham & Company 4Q19 HME Survey

Note: Only Medicare coded group 3 power wheelchair product lines

Figure 31 - Change in Power Wheelchair Market Share



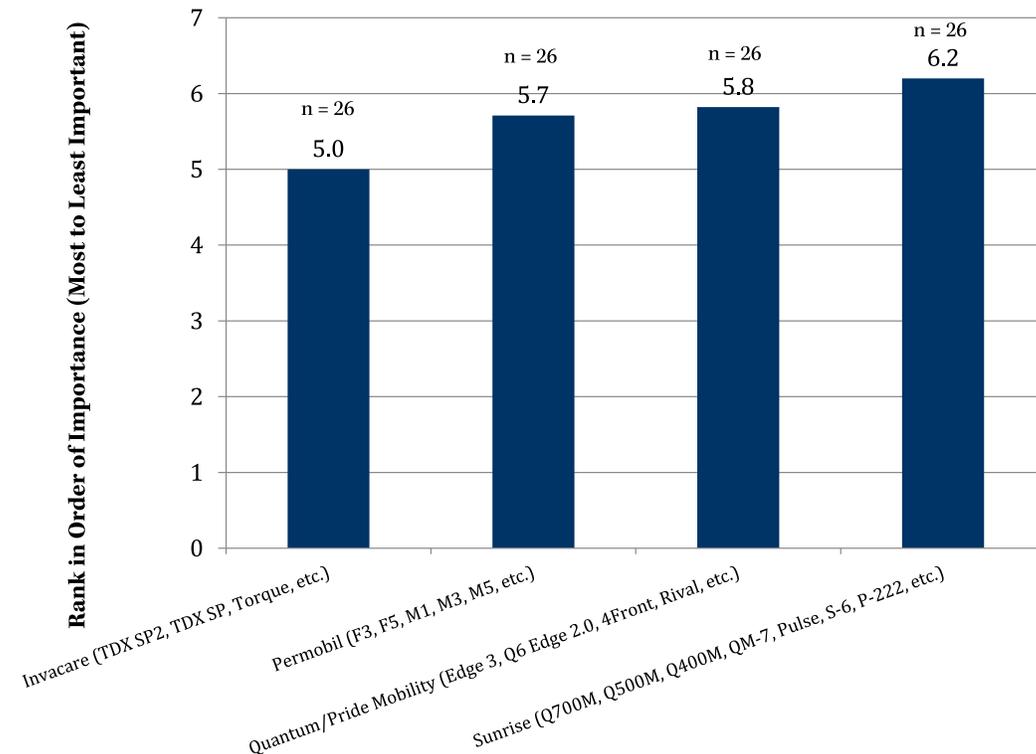
Source: Needham & Company 4Q19 HME Survey

Note: Only Medicare coded group 3 power wheelchair product lines

SUNRISE HAS THE HIGHEST RATED POWER WHEELCHAIRS

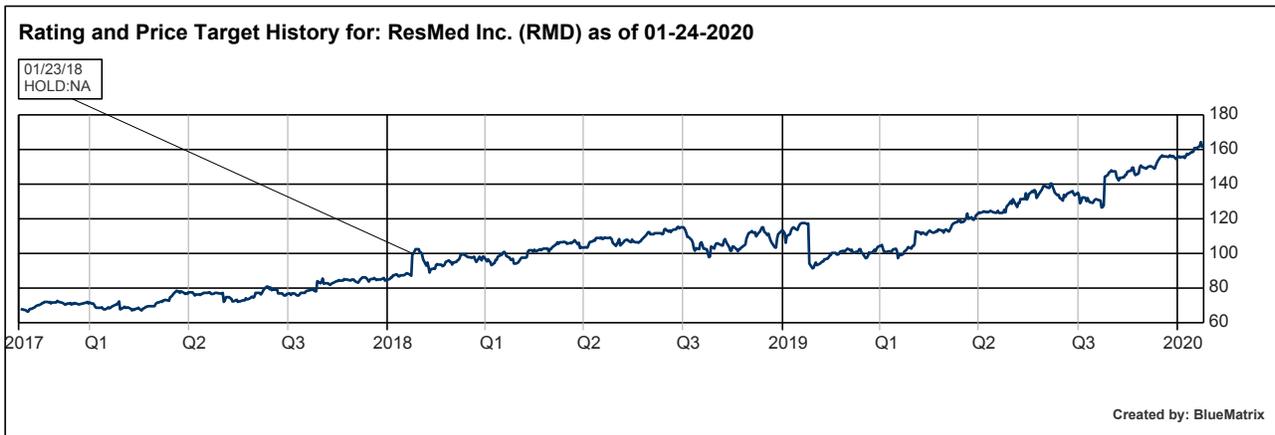
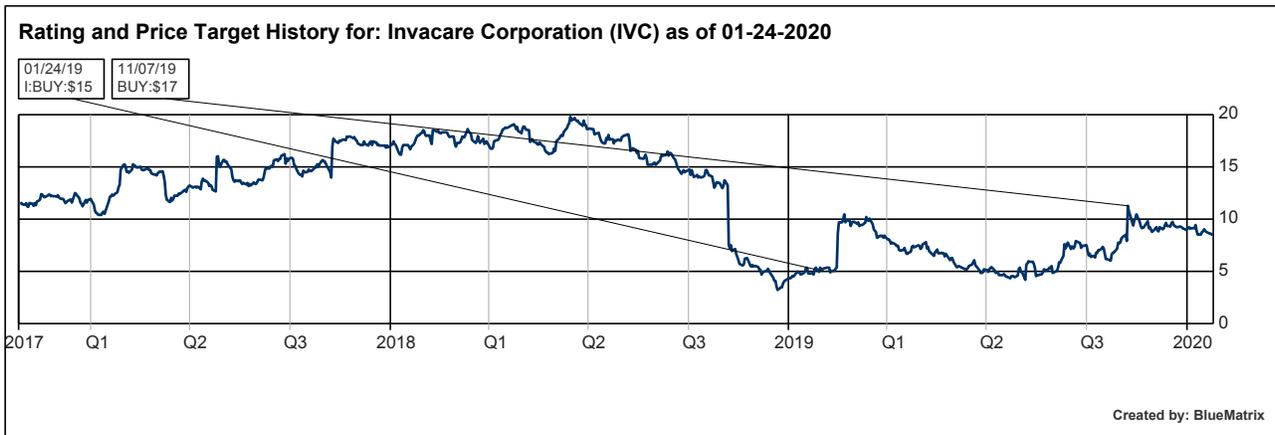
According to our survey’s respondents, Sunrise has the highest rated power wheelchairs followed by Quantum/Pride Mobility, Permobil, and then Invacare. Sunrise’s power wheelchairs (e.g. Q700M, Q500M, Q400M, QM-7, Pulse, S-6, P-222, etc.) were rated 6.2 out of 7.0 followed by Pride Mobility’s power wheelchairs (e.g. Edge 3, Q6 Edge 2.0, 4Front, Rival, etc.) at 5.8, Permobil’s power wheelchairs (e.g. F3, F5, M1, M3, M5, etc.) at 5.7, and Invacare’s power wheelchairs (e.g. TDX SP2, TDX SP, Torque, etc.) at 5.0.

Figure 32 - Power Wheelchair Product Line Ratings



Source: Needham & Company 4Q19 HME Survey

Note: Only Medicare coded group 3 power wheelchair product lines



ANALYST CERTIFICATION

I, Mike Matson hereby certify that the views expressed in this research report accurately reflect my personal views about the subject company (ies) and its (their) securities. I, also certify that I, have not been, and will not be receiving direct or indirect compensation in exchange for expressing the specific recommendation(s) in this report.

RATINGS DISTRIBUTIONS FOR NEEDHAM & COMPANY, LLC

	% of companies under coverage with this rating	% for which investment banking services have been provided for in the past 12 months
Strong Buy	4	14
Buy	66	20
Hold	28	3
Underperform	2	0
Rating Suspended	0	0
Restricted	0	0

Needham & Company, LLC employs a rating system based on the following:

Strong Buy: A security, which at the time the rating is instituted, we expect to outperform the average total return of the broader market as well as the securities in the analyst's coverage universe over the next 12 months.

Buy: A security, which at the time the rating is instituted, we expect to outperform the average total return of the broader market over the next 12 months.

Hold: A security, which at the time the rating is instituted, we expect to perform approximately in line with the average total return of the broader market over the next 12 months.

Underperform: A security, which at the time the rating is instituted, we expect to underperform the average total return of the broader market over the next 12 months.

Rating Suspended: We have suspended the rating and/or price target, if any, for this security, because there is not a sufficient fundamental basis for determining a rating or price target. The previous rating and price target, if any, are no longer in effect and should not be relied upon. This rating also includes the previous designation of "Under Review".

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