



## Equity Research

July 9, 2008

### Q3 2008 Sleep Center Survey

After A Slowdown, Sleep Lab Growth Looks Likely To Stabilize

Sector Rating: Respiratory, Market Weight

Company Name	Stock Rating	Price 07/09/08	FY EPS 2008E	FY EPS 2009E	FY P/E 2008	FY P/E 2009
<b>Respiratory</b>						
ResMed Inc. (RMD)	2V	\$37.88	\$1.49	\$1.74	25.4x	21.8x

Source: Company data and WCM, LLC estimates      NA = Not Available, NC = No Change, NE = No Estimate, NM = Not Meaningful  
1 = Outperform, 2 = Market Perform, 3 = Underperform, V = Volatile

- **Our Ninth Sleep Center Survey.** We partnered with *Sleep Review* magazine to conduct our ninth semi-annual survey of sleep centers. The survey included responses from 772 sleep labs received between 6/23/08 and 7/1/08.
- **Sleep Lab Expansion Looks Likely To Stabilize.** Sleep centers in our survey report expanding bed capacity by 13% in the last 12 months (LTM), down from 29% in our Q1 2008 survey. The centers plan to expand beds by 17% in the next 12 months (NTM), up from 13% in our Q1 2008 survey. Similarly, the sleep centers report that patient volumes were up 11% in the LTM (down from 13% in our Q1 2008 survey) but are expected to be up 13% in the NTM (up from 10% in our Q1 2008 survey). Though the growth rate has slowed, we interpret the return to forward growth expectations that exceed past growth as a positive sign and an indication of a return to stability in the sleep market.
- **Home Testing Likely To Get Lukewarm Reception From Sleep Centers.** Currently, just 13% of the sleep centers offer home sleep tests. In the next 6 months, another 33% expect to start offering home sleep tests. However, when asked about what level of reimbursement it would take for the sleep centers to adopt home testing, the average response was \$428 per test. Medicare has just established G-codes (G0398-G0400) for home testing which pay \$146 per test. At this payment rate, only about 6% of sleep centers would be willing to offer home tests so we are concerned that adoption of home testing by sleep centers may be limited.
- **New RMD Products Were Rated Identically To Older Products Supporting Our View That Improvements Are Largely Incremental.** Consistent with our prior survey, Respiration's and RMD's mainstream products remain nearly even in product ratings though RMD maintains a slight rating edge in premium masks. RMD's new products are a central component of the bull thesis but our survey showed that RMD's two most significant new products (the S8 II flow generator platform and the Swift LT mask) were rated identically to the older versions. As a result, we maintain our modest expectations for RMD's product cycle.
- **Early Signs Of Stability In U.S. Sleep Market Make Us Slightly More Positive On RMD.** We are encouraged by the signs of stabilization in the U.S. sleep market and feel modestly more positive towards RMD. However, we maintain our Market Perform rating given a still lofty valuation (RMD trades at 20x our calendar 2009 EPS estimate), a highly competitive sleep market, and reimbursement pressures.

#### Medical Technology/Devices

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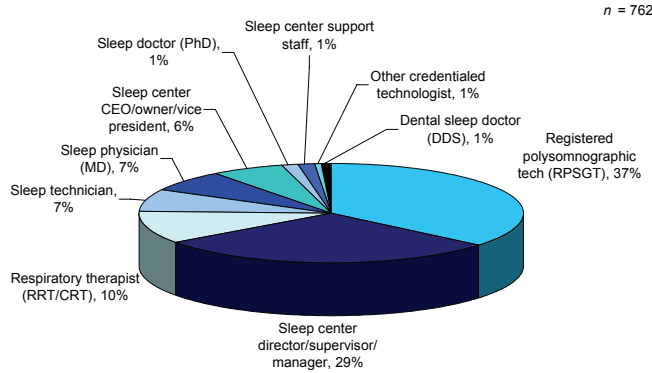
Please see page 9 for rating definitions, important disclosures and required analyst certifications.

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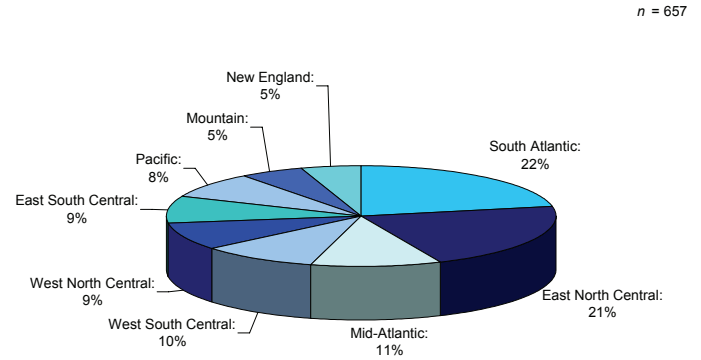
## Survey Introduction

This is the ninth semiannual survey of U.S. sleep centers. For the first time, we partnered with the trade magazine *Sleep Review* to conduct the survey. Among the roughly 12,500 sleep professionals that we sent the survey to, 772 responded to one or more of the survey questions for a response rate of 6%. The responses were collected between 6/23/08 and 7/1/08. None of the questions in this survey were mandatory, therefore response rates varied from question to question (we note the response rate on each of the charts). We received responses from a range of sleep industry participants with registered polysomnography technicians (37% of respondents) and sleep center directors/supervisors/managers (29% of respondents) representing the most common titles. Responses also covered every geographic region (and nearly every state) in the U.S.

**Figure 1: Survey Participant Titles**



**Figure 2: Survey Participant Geographic Regions**



Source: Wachovia Capital Markets, LLC Q3 2008 Sleep Center Survey (both charts)

## Survey says...

**...sleep center expansion slowed over the past year but looks likely to stabilize over the next year**

**Bed Growth During Prior 12 Months:** Respondents saw bed growth of 13% during the past 12 months and reported an average of 7.2 beds per respondent versus 6.4 beds per respondent 12 months ago. In our Q1 2008 Sleep Center Survey (1/08), respondents reported growth of 29%, and in our Q3 2007 Sleep Center Survey (9/07) respondents reported growth of 18%. We note that sleep center growth covers only part of the entire sleep market, as sleep center growth drives new diagnoses and flow generator sales, while mask sales are mostly driven by replacement sales. Moreover, sleep center growth as defined in our survey only represents organic growth (beds per center) versus inorganic growth (new sleep centers).

That being said, the survey demonstrates a decrease in bed growth to a level in the low teens range which is about where we believe the sleep market is growing. We think the sharp slowdown in sleep lab expansion may have been driven by the prospect of home obstructive sleep apnea (OSA) testing. Medicare proposed coverage of home testing in December of 2007 and then finalized coverage in March of 2008. So given the threat posed by home testing, it is not surprising that sleep labs may have slowed expansion around this time. We estimate that flow generators (driven mainly by new patients) have been growing at 8-10% while masks (driven by both new patients and increasing replacement among existing patients) have grown at 13-15%; combined, this puts the market in the low teens.

**Expected Bed Growth During Next 12 Months:** Respondents expect faster sleep center capacity expansion in the next 12 months (17% to 8.4 beds per respondent) than the growth seen in the past 12 months. In our Q1 2008 survey, respondents expected growth in the next 12 months of 13% and in our Q3 2007 survey, respondents expected growth in the next 12 months of 35%. Since our prior surveys indicate that sleep

Q3 2008 Sleep Center Survey

centers overestimate their projected growth rates by 150-200%, we interpret this to mean that sleep center growth is likely to be stable in the low teens over the next 12 months. In explaining the stabilization, we think that the sleep centers' initial fears of home testing may be easing since reimbursement for home testing is likely to be less than expected (around \$150) and since CMS has restricted providers of CPAP equipment from administering tests.

Figure 3: Sleep Center Bed Growth

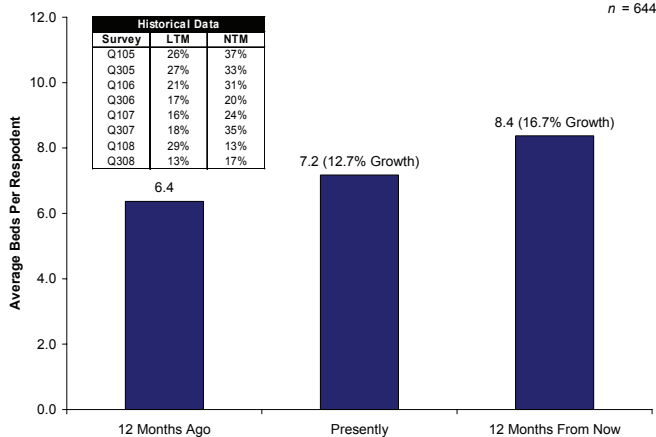
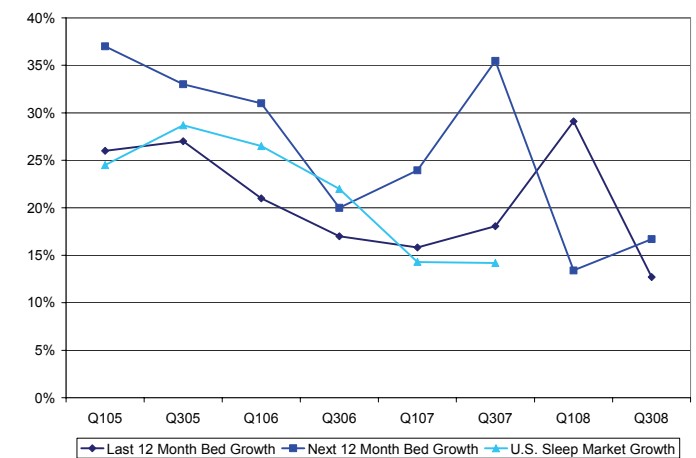


Figure 4: Sleep Center Bed Growth (Time Series)



Source: Wachovia Capital Markets, LLC Q3 2008 Sleep Center Survey (both charts)

**...sleep centers have seen patient volume grow by 11% in the past 12 months and expect 13% growth in the next 12 months**

On average, respondents have seen patient volume grow 11% in the last 12 months (LTM) and expect 13% growth in the next 12 months (NTM) and we note that the most common response for both was 10-14% growth. These numbers are slightly behind both the reported and expected bed growth rates (which were 13% and 17%, respectively). We are not sure how to explain the discrepancy between these two questions; one possible explanation might be that there is a lag between sleep center expansion and patient volume growth. This is the third time we have asked this particular question, so it is a bit early to evaluate longer term trends in patient volume. LTM growth in this survey was down slightly from our prior two surveys (10% vs. 13% and 13%) though NTM growth in this survey was between our prior two surveys (13% vs. 17% and 10%). These growth rates support our view that the U.S. sleep market is growing in the low teens.

Figure 5: Average Patient Volume Growth

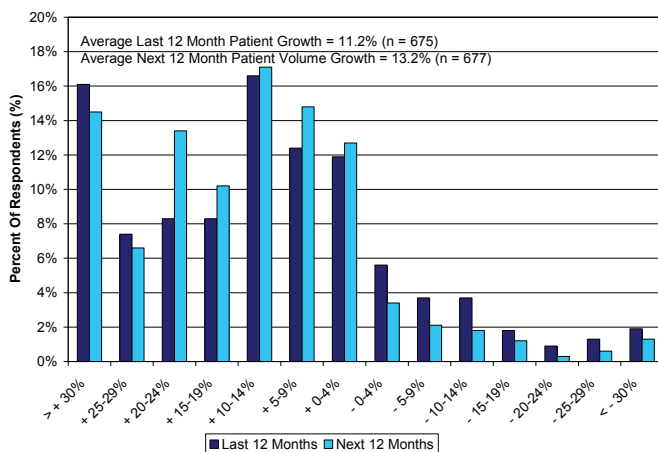
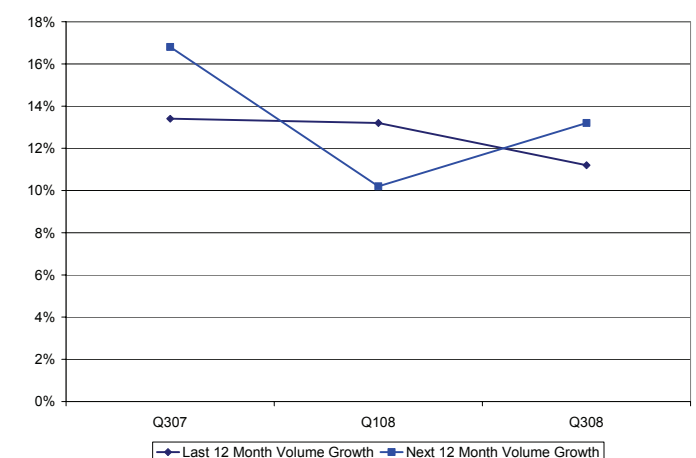


Figure 6: Average Patient Volume Growth (Time Series)

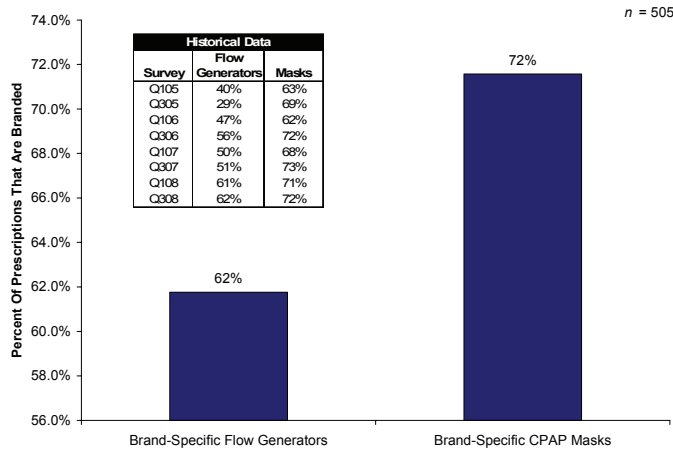


Source: Wachovia Capital Markets, LLC Q3 2008 Sleep Center Survey (both charts)

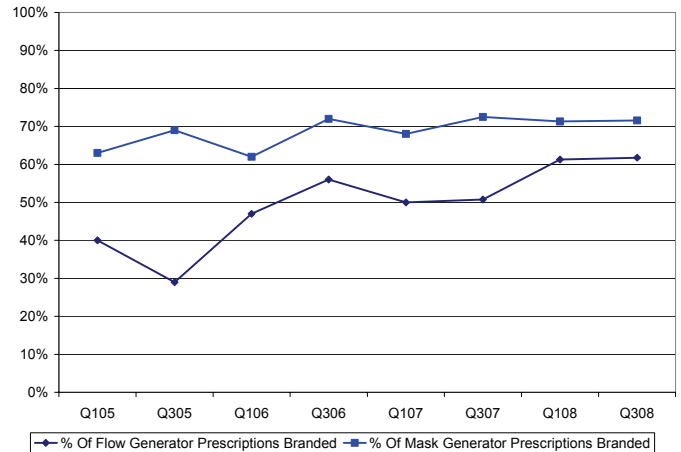
**...brand-specific prescriptions remained stable for both masks and flow generators**

On average, sleep centers reported writing brand-specific prescriptions for 72% of mask prescriptions and for 62% of flow generator prescriptions. This is nearly identical to our Q1 2008 survey in which respondents indicated that on average 71% of patients received brand-specific mask prescriptions while 61% received brand-specific flow generator prescriptions. This is the highest we have ever seen brand-specific flow generator prescriptions and may indicate increased marketing efforts by the CPAP companies to drive brand-specific prescriptions ahead of the implementation of Medicare's competitive bidding program.

**Figure 7: Brand-Specific Flow Generator And Mask Prescriptions**



**Figure 8: Brand-Specific Flow Generator And Mask Prescriptions (Time Series)**

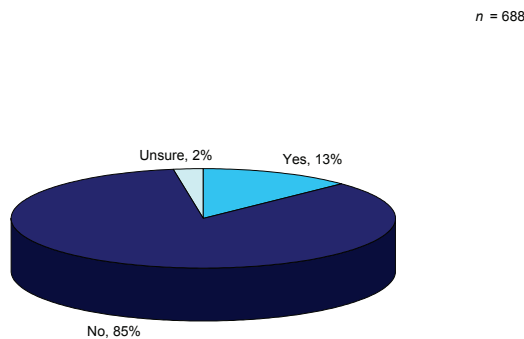


Source: Wachovia Capital Markets, LLC Q3 2008 Sleep Center Survey (both charts)

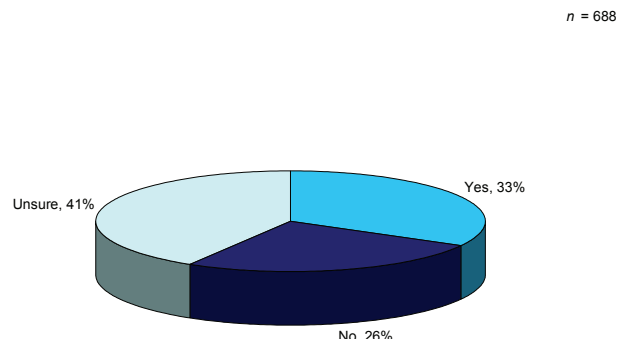
**...only a minority of sleep centers currently administer home OSA tests but more sleep centers plan to begin to start to administer home tests in the next 6 months**

Currently only 13% of sleep labs administer home OSA testing with another 33% likely to start to administer home OSA tests in the next 6 months. Supporting our thesis that the threat of home testing has slowed sleep lab expansion and growth expectations, 23% of sleep labs surveyed indicated that the potential for increased use of home diagnosis has affected their expansion plans. However, this is down from 40% in our Q1 2008 survey which supports our latest view that the sleep centers have become less fearful of home testing.

**Figure 9: Does Your Sleep Lab Presently Administer Home Tests?**



**Figure 10: Does Your Sleep Lab Expect To Begin To Administer Home Tests In The Next 6 Months?**



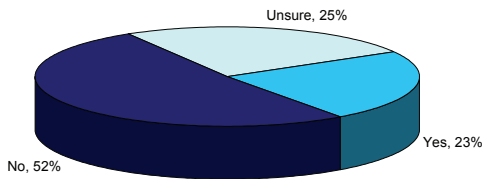
Source: Wachovia Capital Markets, LLC Q3 2008 Sleep Center Survey (both charts)

Q3 2008 Sleep Center Survey

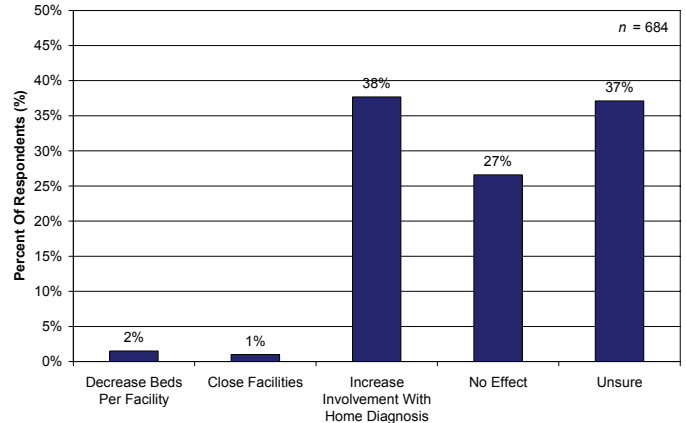
The sleep centers expect to make only moderate changes to their practices in the face of increased use of home testing. Around 38% of respondents would increase involvement with home testing while only 2% would reduce the number of beds at their facilities, 1% would close facilities, and 27% expect to make no changes. These numbers were down from our Q1 2008 survey where 15% of respondents expected reduce the number of beds at their facilities and 5% of respondents expected to close facilities.

**Figure 11: Has The Possibility Of Increased Home Testing Had An Effect On Your Facility’s Expansion Plans?**

n = 684



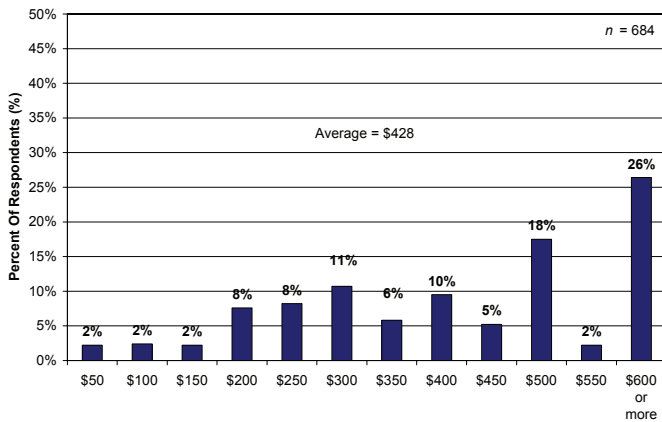
**Figure 12: What Will The Effect On Your Facility Be Of Increased Use Of Home Testing?**



Source: Wachovia Capital Markets, LLC Q3 2008 Sleep Center Survey (both charts)

We also asked the sleep centers about their expectations regarding reimbursement for home sleep tests. On average the sleep centers indicated that they would need \$428 per home test to begin home testing. We think that this is well above the level that Medicare intends to pay (around \$150 according to recently established G-codes). As a result, adoption of home testing may be inhibited due to a lack of financial incentive.

**Figure 13: What Is Minimum Reimbursement Per Test For Your Facility To Begin To Administer Home OSA Tests?**



Source: Wachovia Capital Markets, LLC Q3 2008 Sleep Center Survey

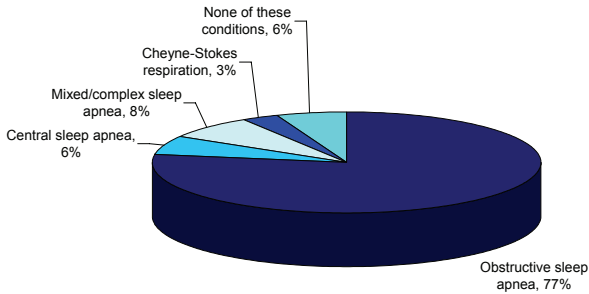
**...“problem” patients encompass about 17% of patient volumes seen by the sleep centers**

While the overwhelming majority of patients seen by sleep centers have a primary diagnosis of obstructive sleep apnea, 17% of the patients fall into the category of “problem patients” that have central sleep apnea (~6%), mixed/complex apnea (~8%), or Cheyne-Stokes respiration (~3%). This is consistent with both recent clinical studies and within the realm of the estimates provided by ResMed (15-20%) and Respironics (5-10%)

management teams. This is also largely consistent with our prior surveys; problem patients made up 15% in our Q1 2008 survey and 17% in our Q3 2007 survey.

**Figure 14: Patient Distribution By Primary Diagnosis**

n = 563



Source: Wachovia Capital Markets, LLC Q3 2008 Sleep Center Survey

**...and these patients are typically treated with servo-ventilation although servo ventilation utilization has dropped some since our last survey**

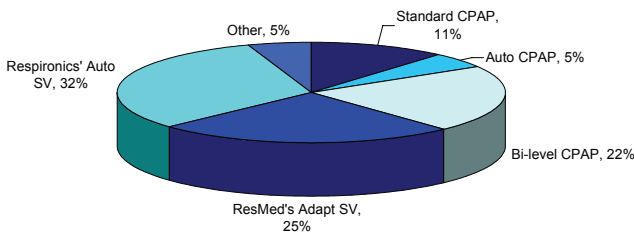
According to our survey, the predominant method of treatment used for these “problem” patients is servo-ventilation: 57% of central/complex sleep apnea patients (down from 59% in our Q1 2008 survey) and 54% of Cheyne-Stokes respiration or CSR patients (down from 65% in our Q1 2008 survey) are treated with servo-ventilators.

Interestingly, it appears that Respironics’ Auto SV model has gained share from ResMed’s Adapt SV model. ResMed’s Adapt SV share among central/complex apnea patients fell from 34% in our Q1 2008 survey to 25% in this survey and among CSR patients fell from 40% in our Q1 2008 survey to 24% in this survey.

Bi-level CPAP also remains a popular treatment at 22% of central/complex apnea patients and 27% of CSR patients.

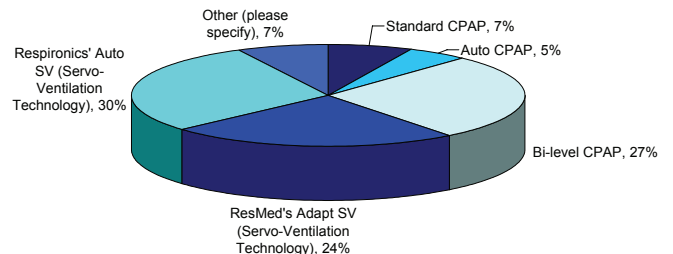
**Figure 15: Treatments For Central and Complex Sleep Apnea Patients**

n = 603



**Figure 16: Treatments For Cheyne-Stokes Respiration Patients**

n = 603



Source: Wachovia Capital Markets, LLC Q3 2008 Sleep Center Survey (both charts)

**...Respironics and ResMed At Parity In Mainstream Products Although ResMed Maintains A Slight Edge In Premium Masks**

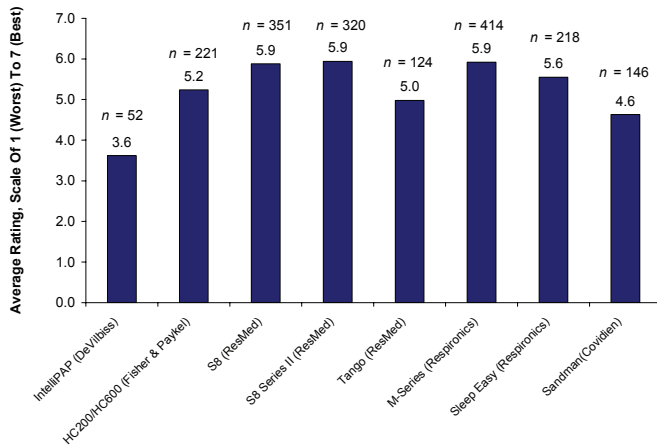
Respironics’ and ResMed’s mainstream flow generator and nasal mask products were rated nearly equivalently by the sleep labs. ResMed’s S8 and S8 II flow generator platforms (which each averaged 5.9 out of 7.0) rated in line with Respironics’ M Series (which also averaged 5.9 out of 7.0). Interestingly, ResMed’s new S8 II unit did not rate more highly than the older S8 or Respironics’ M Series which seems to support our view that the S8 II offers mainly incremental improvements and is unlikely to drive a major growth reacceleration at ResMed.

At the low-end of the market, ResMed’s Tango (average rating of 5.0 and ranked sixth), fell below Respironics’ Sleep Easy (average rating of 5.6 and ranked fourth). This is a negative for ResMed in our view because these lower-end units might become a bigger share of the market under Medicare’s competitive bidding program. And if the Sleep Easy proves superior, ResMed could stand to lose additional market share.

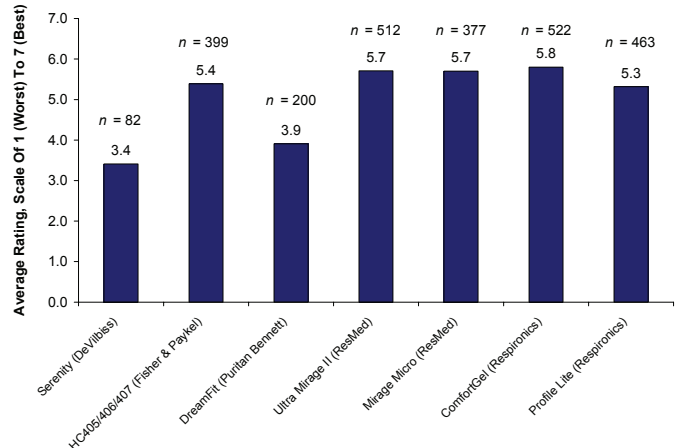
Fisher & Paykel’s HC200/600 flow generator platforms were in fourth place with an average 5.2 rating. And the two other relatively new flow generator platforms, the Sandman by Covidien and the IntelliPAP by DeVilbiss, received average ratings of 4.6 and 3.6, respectively. We continue to believe that these products are promising with size, weight, noise levels, and features to match the market leaders. ResMed’s and Respironics’ relatively higher ratings may be more a reflection of their marketing efforts directly to sleep labs than of the products themselves. Despite their ratings, we continue to view these products as a potential threat to ResMed.

On the nasal mask side, results were similar with ResMed’s Ultra Mirage and Mirage Micro (which each averaged 5.7 out of 7.0) rated about in line with Respironics’ ComfortGel and Profile Lite masks (which averaged 5.8 and 5.3, respectively, out of 7.0). Fisher & Paykel’s HC400 series masks were in fourth place with an average 5.4 rating.

**Figure 17: Flow Generator Ratings**



**Figure 18: Nasal Mask Ratings**



Source: Wachovia Capital Markets, LLC Q3 2008 Sleep Center Survey (both charts)

In high-end masks (nasal pillows and full face masks), ResMed maintained an edge, however. In nasal pillows, ResMed’s Swift II and Swift LT each received an average 5.7 out of 7.0. While these were the highest ratings, it again supports our view that ResMed’s newest products are not offering significant improvements over its older products. Respironics’ OptiLife mask was rated a 5.1 and was second to the Swift II/Swift LT while Respironics’ ComfortLite 2 was rated 4.8. Fisher & Paykel’s Opus 360 was in third place and was rated 4.9.

In full face masks, ResMed’s Quattro looks like a potential hit with a 6.0 rating, higher even than the Swift. ResMed’s Liberty was rated 5.0; although this is lower than ResMed’s other masks, it is well ahead of its

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primary competitor, the Teleflex Hybrid at 3.6. Respironics' ComfortFull 2 was rated 4.9 while its new ComfortGel Full was rated 5.4.

Figure 19: Nasal Pillow Mask Ratings

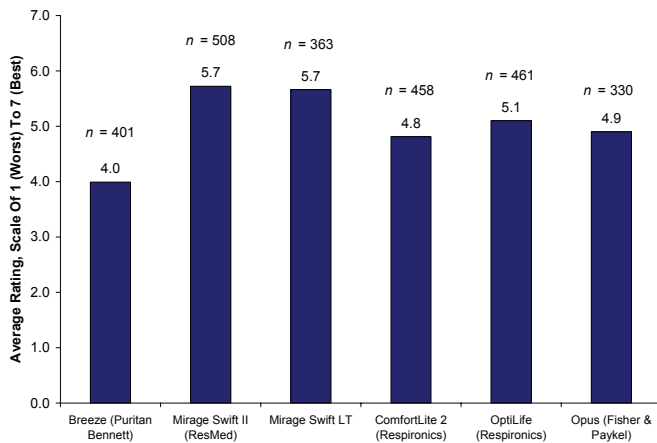
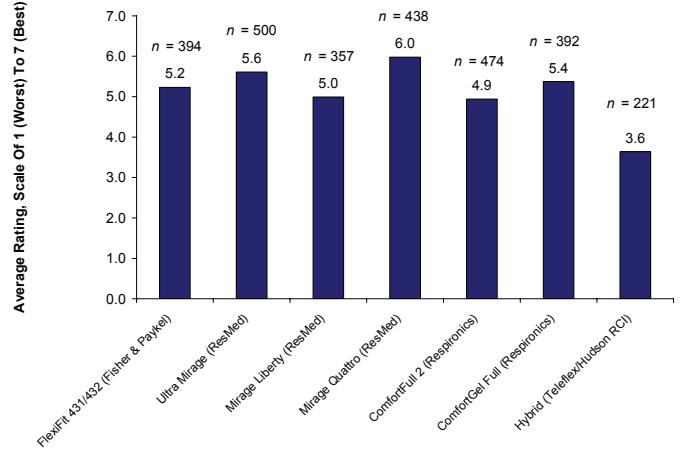


Figure 20: Full Face Mask Ratings



Source: Wachovia Capital Markets, LLC Q3 2008 Sleep Center Survey (both charts)

**...only a minority (19%) of sleep labs are selling sleep therapy equipment but more (5%) plan to do so in the next year**

We have seen a gradual increase in sleep labs selling sleep therapy equipment from 16% of labs in our Q1 2006 survey to 19% in our Q3 2008 survey. We think that some labs have started to view equipment as an additional revenue source and a way to offset potential losses to home sleep testing. However, this might be challenged (at least for Medicare patients) given a proposal from CMS to disallow CPAP sales by companies administering tests and vice versa (this was part of the FY 2009 Physician Fee Schedule Proposal).

Figure 21: Sleep Labs Selling Sleep Therapy Equipment

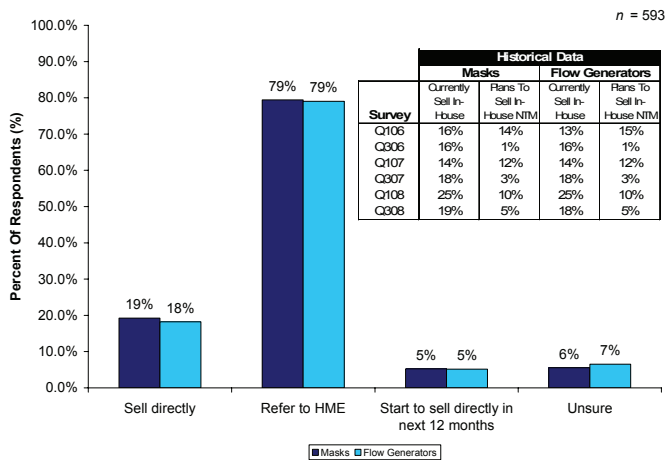
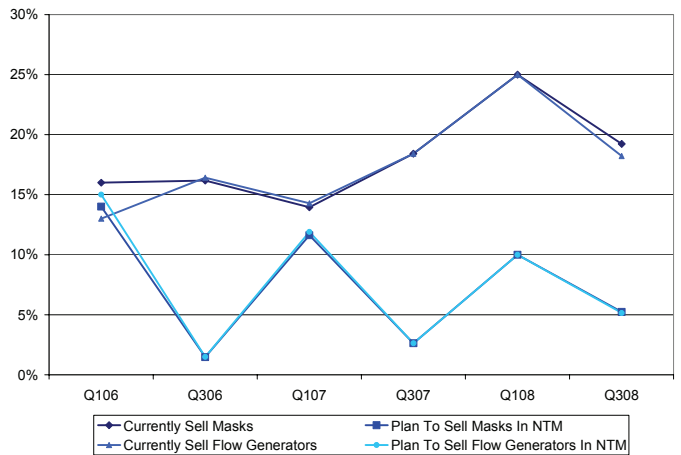
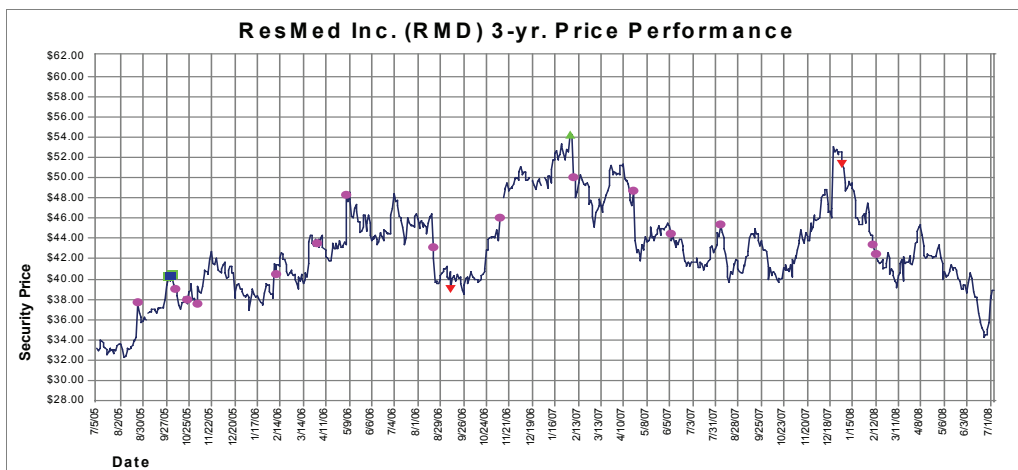


Figure 22: Sleep Labs Selling Sleep Therapy Equipment (Time Series)



Source: Wachovia Capital Markets, LLC Q3 2008 Sleep Center Survey (both charts)

## Required Disclosures



	Date	Publication Price (\$)	Rating Code	Val. Rng. Low	Val. Rng. High	Close Price (\$)
	7/5/2005		Huber			
	7/5/2005	NA	1	33.50	35.00	33.23
●	8/23/2005	NA	1	39.00	40.50	37.68
□	10/3/2005		2 for 1 stock split.			
■	10/3/2005		Matson			
●	10/7/2005	NA	1	78.00	81.00	39.04
●	10/24/2005	NA	1	39.00	40.50	38.00
●	11/3/2005	NA	1	42.00	44.00	37.60
●	2/8/2006	NA	1	46.00	48.00	40.41
●	3/30/2006	NA	1	48.00	50.00	43.48
●	5/5/2006	NA	1	49.00	52.00	48.36
●	8/18/2006	NA	1	52.00	55.00	43.10
▼●	9/11/2006	NA	2	40.00	44.00	39.04
●	11/9/2006	NA	2	42.00	47.00	46.02
▲●	2/2/2007	NA	1	61.00	66.00	54.26
●	2/7/2007	NA	1	60.00	65.00	50.00
●	4/23/2007	NA	1	50.00	55.00	48.64
●	6/6/2007	NA	1	52.00	56.00	44.44
●	8/7/2007	NA	1	50.00	54.00	45.40
▼●	1/2/2008	52.53	2	51.00	55.00	51.31
●	2/8/2008	44.33	2	40.00	45.00	43.36
●	2/12/2008	42.49	2	38.00	43.00	42.49

Source: Wachovia Capital Markets, LLC estimates and Reuters data

<b>Symbol Key</b>		<b>Rating Code Key</b>	
▼ Rating Downgrade	◆ Initiation, Resumption, Drop or Suspend	1 Outperform/Buy	SR Suspended
▲ Rating Upgrade	■ Analyst Change	2 Market Perform/Hold	NR Not Rated
● Valuation Range Change	□ Split Adjustment	3 Underperform/Sell	NE No Estimate

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**U = Underweight:** Industry expected to underperform the relevant broad market benchmark over the next 12 months.

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As of: July 9, 2008

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