



Physician Update

Part 1 of 2:
The High Cost of Unmanaged Hearing
Loss on Our Health Care System



The High Cost of Unmanaged Hearing Loss on Our Health Care System



By **David A. Jardine, Au.D., CCC-A**
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Hearing loss is one of the most prevalent problems affecting Americans. Research suggests that approximately 1 in 7 Americans, or approximately 33 million Americans, has some degree of hearing loss. The number of people with hearing loss is likely to continue to grow as people live longer lives. An estimated 38.4 million Americans are expected to have hearing loss by 2020 and 52.0 million by 2050.

Although hearing loss is often associated with aging – indeed, 40% of adults over the age of 60 have clinically significant hearing loss; the majority of people with hearing loss are under the age of 60. In fact, the “Baby Boomer” generation has the greatest incidence of hearing loss (1:4) of all the generations.

Alarming, some predict that the incidence of hearing loss in Generations Y and Z may soon exceed the “Baby Boomer” generation. The Journal of the American

Medical Association, Aug. 2010, reports that one in five teens has lost at least a mild degree of hearing. The increased use of iPods, cell phones, alcohol, first and second-hand cigarette smoke, and recreational drug use all seem to be contributory factors to the increase in hearing loss seen in these segments of the U.S. population.

At the same time that we have seen an increase in hearing loss related to lifestyle choice, we have not seen a decrease in the incidence of hearing loss related to other common factors, including: birth defects (3:1000), genetics influences, noise exposure, ototoxic medications, viruses, trauma, and tumors. In fact, there are currently more medications listing hearing loss as a potential side effect than ever before.

The Cost to Our Health Care System

The vast number of causes for hearing loss, as well as the rise in incidence, is concerning. Hearing loss has been shown to negatively impact nearly every dimension of human experience including: social skills, relationships, emotional and mental health, physical health, school performance and occupational success. All of these effects can place a heavy financial toll on our health care system.

The effect of untreated hearing loss on social and mental health has been well documented. Studies by the National Council on Aging (1999) and the Better Hearing Institute (2010) have found people with impaired hearing are likely to experience distorted communication, social isolation, withdrawal, reduced sensory input, depression, anger, fatigue, tension, stress, and generally diminished psychological health. These effects can place significant costs on our healthcare system. Social withdrawal or isolation is correlated with a higher incidence of health problems and delays in recovery from illness. Treatment for mental health problems, and their associated physical effects, can add millions of dollars to healthcare costs annually.

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The physical effects of hearing loss and their associated costs are equally as significant. Hearing loss poses increased risk to personal safety. Noise induced hearing loss is the most common occupational disease and the second most self-reported occupational injury. Untold sums of money are spent in worker's compensation claims and medical expenses annually due to accidents at least partially attributable to compromised hearing in the workplace. Of course, if the number of non-work related accidents due to hearing loss were included (e.g. vehicle accidents), the cost would be even higher.

Untreated hearing loss may perpetuate the advancement of disorders and disease, which can have adverse effects on the individual and our health care system. Recent research



published in the Archives of Neurology, Feb. 2011 found that people who are hard of hearing have increased odds of developing dementia as they age. What is responsible for this correlation is unclear. However, even when other factors, including age and overall health were controlled for, the research found that the greater the hearing loss, the greater the likelihood of developing dementia,

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specifically Alzheimer's. The research suggests that if we could delay the onset of dementia by even one year, through improved hearing and increased sensory input, we would experience a 10% reduction in prevalence by 2050.

The association between hearing loss and other medical disorders is important to note, especially since specific types of hearing loss, and changes in auditory

processing ability, may be early signs of other serious medical disorders or complications. For example, hearing loss may be an early sign of heart disease or the potential for a stroke. The reason is simple – the inner ear depends on a rich supply of blood, and research shows that when blood circulation is compromised, the ear can suffer. Regular hearing testing, early identification of hearing loss, and earlier management could save the health care system millions of dollars annually.

Part two of this series explores the costs of hearing loss, from both economic and social perspectives, and considers how the healthcare providers can advocate for better hearing.

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Lewiston-Auburn, ME
Simard-Payne
Memorial Park

October 8 & 9, 2011



Choose your challenge:

Saturday, October 8

Run/Walk

- Amgen® Breakaway from Cancer Survivor Walk
- L.L.Bean 5K
- L.L.Bean 10K
- Kids' Fun Run
- Hannaford 5 & 10K Cafe

Sunday, October 9

Cycle

- 10 Mile
- 25 Mile
- 50 Mile
- 70 Mile
- 100 Mile
- Lobster Trap

Throughout the Weekend

Festival In the Park

- KidZone
- Concentra Health & Wellness Expo
- Health Screenings
- Dempsey Center Tent
- Live Entertainment

FREE

Behind every Bib is a story.



To donate, register or volunteer:
www.dempseychallenge.org

See the new "Badge of Honor" video
at dempseychallenge.org



Trust your patients to us — their backs, knees, shoulders, ankles, feet, and hands.

We're the Orthopaedic Institute of Central Maine (OICM). Our physicians and surgeons have the depth of training and experience that you would expect from orthopaedic specialists in Boston or New York and they deliver it here in Maine.



"I specialize in **Sports Medicine**.

That means most of my work is on **shoulders and knees**.

As you know, those are the joints most likely to be injured in team or individual sports.

I serve as the team physician for **Bates College**. I'm one of

eight board-certified, orthopaedic surgeons working in

Core Connect CareSM teams at the OICM. We are pleased to offer consulting and assessment services as well as

treatment and surgical options to you and your patients."

PAUL CAIN, M.D.

Board-certified, fellowship-trained orthopaedic surgeon at the OICM

We created the OICM because we believe that Maine residents should have access to a full range of options, including the very latest technology and expertise.

The Orthopaedic Institute of Central Maine

The OICM is a partnership between Central Maine Orthopaedics (an independent private surgical practice) and Central Maine Medical Center (the Lewiston-based flagship hospital of the Central Maine Medical Family). Our goal is to be the surgical destination of choice for patients in Maine — providing the same high level of care you would find in large cities, such as New York or Boston.

World-class in-hospital surgical center dedicated to orthopaedics

The OICM is the only facility of its kind in Maine. We put together a group of eight board-certified surgeons (with deep experience in complex surgical procedures), along with physicians, nurses, physical and occupational therapists, and other clinicians who are trained and experienced in orthopaedics. Patients are admitted to the OICM, a special unit of private rooms at Central Maine Medical Center dedicated exclusively to the care of orthopaedic patients. The architects

worked closely with the OICM staff to design a new facility that contributes to orthopaedic treatment and recovery.

We have the staff, we have the facility, and we've taken it one step further. Our combined experience, along with extensive research, shows that patients recover faster when they have a relationship with their healthcare team. So we developed a process called **Core Connect CareSM**. It is a continuum of care, with each patient assigned a team that will stay with them from diagnosis to treatment and surgery to physical therapy and a return to normal activity. And, of course, we include referring physicians in that team.

Evidence-based results

Our data speaks to the validity and effectiveness of our approach. We collect information, run analytics, and measure ourselves against national benchmarks. Just one year into full operation, the OICM is heading in a great direction. Take a look at the information at right. We think you'll feel confident working with us, knowing that your patients will be in very capable hands.



www.oicm.cmmc.org | 207.344.2288

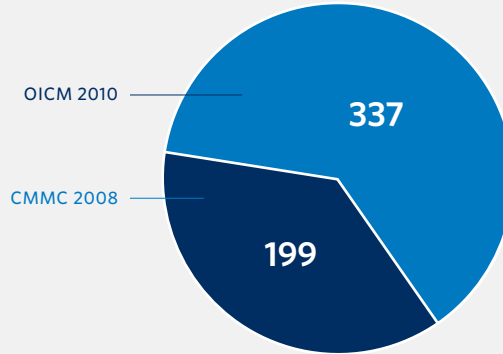
300 Main Street, Lewiston, ME

How can the OICM help your patients? Call us, visit our web site, or take a tour to find out more about the evidence-based results of our Core Connect Care.

POSITIVE OUTCOMES AT THE OICM

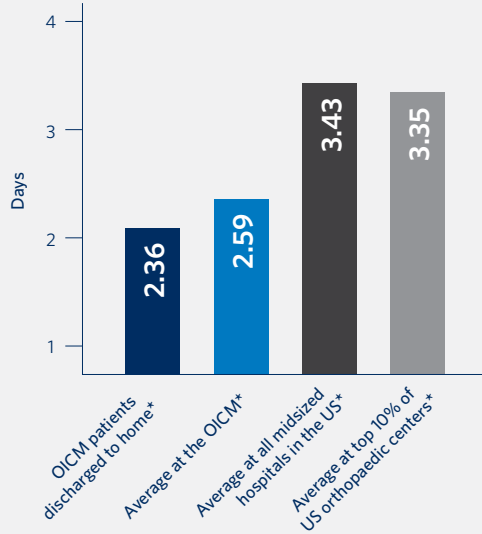
Joint replacement volume

The ideal surgeon is one who has performed a specific surgery over and over again. The CMO surgeons at the OICM are board-certified and fellowship-trained in their orthopaedic specialties. In 2010, 337 joints were replaced at the OICM (compared with 199 at CMMC in 2008, before the dedicated OICM unit was formed). The already impressive numbers at the OICM will continue to rise — that's peace of mind.



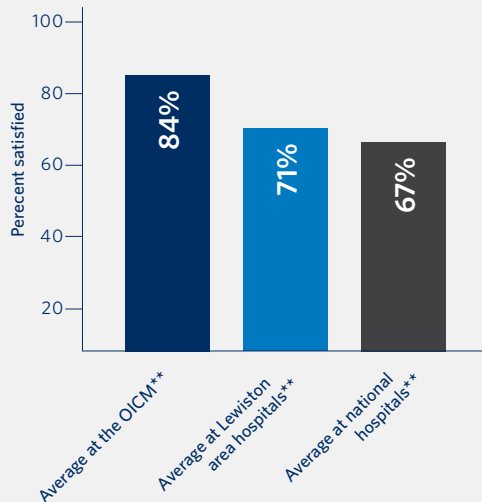
Length of stay

There are many reasons a short length of stay (LOS) is beneficial to both the patient and the hospital/clinic. The goal at the OICM is to be consistently below 2.80 days while meeting all industry standards. The average of all mid-sized hospitals in the US is 3.43 days. Patients discharged to home from the OICM have an average length of stay of 2.36 days.



Patient satisfaction

Our goal is to provide a level of satisfaction that exceeds all competitors. We are well ahead of the competition and our scores continue to climb. Our fourth quarter score in 2010 was 87 percent. And we are already seeing an increase in 2011.



*Data drawn from one, two, three or four quarters (in 2010) as possible by category. Data was calculated and summarized in two specific orthopaedic categories: Spine Surgery and Joint Replacement. All data sets were supplied by CMMC and downloaded into the Marshall Steele analytical systems to generate a service-line evaluation. Specific orthopaedic data was also drawn out and analyzed through the Crimson system. As time goes on, more surgeries are performed, and more data is available, we expect to see our benchmarked areas constantly improving upwards.

**OICM data source: Press Ganey Scores for Joint DRG's, Lewiston and national data source: www.hospitalcompare.hhs.gov (April 2006–March 2009).

