Cost of Pain

Pain is a major health problem in this country, and it is one of the most common symptoms that prompts people to seek medical care. However, the cost of pain not only includes direct costs associated with doctor's visits, diagnostics and medication, but indirect costs such as lost wages and productivity.[1]

Productivity can be adversely affected by both absenteeism (absence from work, usually illness related) and presenteeism (reduced on-the-job productivity as a result of health problems). The costs associated with presenteeism are not only harder to track than those associated with absenteeism, they might also be greater.[2] American employers lose billions of dollars a year on employee absenteeism as a result of pain: lost productive time from common pain conditions among active workers costs an estimated $61.2 billion per year. The majority (76.6%) of the lost productive time was explained by reduced performance while at work and not work absence.[3]

In 2011, the Institute of Medicine released a report "Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research." According to the report, the annual cost of chronic pain in the U.S. is estimated to be $560-635 billion, including health care expenses and lost productivity.[1]

High Cost, Poor Care

The complexities of pain treatment add to its cost. Primary care systems that do not routinely support coordinated chronic pain care and have limited access to specialist care can make it difficult to deliver effective pain care. Instead of authorizing full multidisciplinary pain management programs, many managed care organizations have been "carving out" portions of comprehensive, integrated programs (i.e., sending patients to different providers for their various needs outside of the comprehensive pain management programs), thus diluting the proven successful outcomes of such integrated programs in an effort to cut costs.[4]

The cost of pain is also not evenly distributed among all conditions. A small proportion of patients with serious illness or multiple chronic conditions account for the majority of health care spending. Despite the high cost, evidence demonstrates that these patients receive health care of inadequate quality, characterized by fragmentation, overuse, medical errors, and poor quality of life.[5]

In 2009, the Mayday Fund Report also considered the lack of pain research in determining the cost of pain: underfunded pain research and lack of comparative effectiveness data, both of which can lead to the delayed development of new treatments, impede efforts to address the enormous cost of persistent pain.[6]

"The annual cost of chronic pain in the U.S. is estimated to be $560-635 billion, including health care expenses and lost productivity."[1]

The report went on to state that there are no current estimates of the total cost of poorly controlled pain in today's dollars. Viewed from the perspective of health care inflation (more than 40% during the past decade), the NIH statistics ($100 billion annually in health care utilization and lost productivity for those in the workforce, and $86 billion annually for just one diagnosis) make it likely that the total U.S. spending on pain is at least comparable to the costs associated with other chronic illnesses. The annual costs associated with pain are probably at least as high as the estimated annual cost of $174 billion that is attributed to diabetes.[6]

Facts

- Arthritis is reported to be the nation's leading cause of disability. In 2003, the total cost of arthritis was $128 billion – nearly $81 billion in direct costs and $47 billion in indirect costs, equal to 1.2% of the 2003 U.S. gross domestic product.[7]
- The cost of treatment for patients with low-back pain (LBP) has a major economic impact worldwide. In the United States, patients with musculoskeletal conditions incur total annual medical care costs of approximately $240 billion, of which $77 billion is related to musculoskeletal conditions. According to a 2006 review, total costs associated with LBP in the United States exceed $100 billion per year, two-thirds of which are a result of lost wages and reduced productivity.[8]
- Neuropathic pain often accompanies low-back pain and one study found that this led to significantly higher cost and resource utilization. The study found:[9]
- A higher proportion of chronic low-back pain (CLBP) patients with neuropathic pain had a diagnosis of clinical depression (8.1%) compared with patients without a neuropathic component (3.2%).[9]

Lost Productivity Due to Pain in the Workplace[3]
Lost productive time from common pain conditions among active workers costs an estimated $61.2 billion per year. The majority (76.6%) of the lost productive time was explaind by reduced performance while at work and not absence. One study determined:

- workers who experienced lost productive time from a pain condition lost an average of 4.6 hours per week
- workers who had a headache had an average loss in productive time of 3.5 hours per week
- workers who reported arthris or back pain had an average lost productive time of 5.2 hours per week
- other common pain conditions resulted in an average loss in productive time of 5.5 hours per week

- A significantly higher proportion of chronic low-back pain (CLBP) patients with neuropathic pain made use of health care resources than their counterparts without neuropathic pain, including:[9]

  Diagnostic tests 24.3% vs 7.1%

  – ER visits 9.3% vs 4.9%

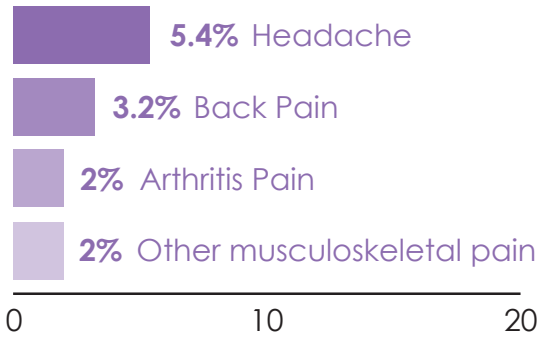
  – Hospital visits 5.1% vs 1.0%

  – Minimally invasive procedures (including the use of nerve blocks, spinal puncture, drainage of spinal abscess) 18.3% vs 6.1%

  – Major procedures (such as artificial disc replacement, nerve repair, partial resection of vertebral components) 5.7% vs. 1.1%

- The study found that the total direct medical costs of LBP-related resource use was $96 million over the 12-month follow-up period for all CLBP patients; however those who also had neuropathic pain accounted for 90.4% of the total cohort and 96% of the total costs, indicating greater resource utilization.[9]
- An estimated 13% of the total workforce experienced a loss in productive time during a 2-week period due to a common pain condition:[3]
  - headache (5.4%)
  - back pain (3.2%)
  - arthritis pain (2.0%)
  - other musculoskeletal pain (2.0%)
- In 2005, the average medical cost of treating back pain among those with spine problems was $6,096, compared with $3,516 among those without spine problems.[10]

An estimated 13% of the total workforce experienced a loss in productive time during a 2-week period due to a common pain condition:[3]



- One study found that total costs for employees with fibromyalgia are $10,199, compared to employees with osteoarthritis, with estimated costs of $10,861. These were significantly higher than controls ($5,274). The study also found:[11]
  - the cost components of fibromyalgia include direct medical ($7,286), pharmacy ($1,630) and indirect costs ($2,913)
  - employees with fibromyalgia had more claims than osteoarthritis for psychiatric diagnoses, chronic fatigue, and most pain conditions
- Total estimated expenditures among respondents with back pain increased 65% (adjusted for inflation) from 1997 to 2005, more rapidly than overall health expenditures.[10]
- The estimated proportion of persons with back or neck pain who self-reported physical functioning limitations increased from 20.7% to 24.7% from 1997 to 2005.[10]
- One study of nurses with chronic pain found that presenteeism was significantly associated with a higher number of patient falls, a higher number of medication errors, and lower quality-of-care scores. The increased falls and medication errors caused by presenteeism were conservatively estimated to cost just under $2 billion for the United States annually.[2]

Additional Resources

Centers for Disease Control and Prevention
1600 Clifton Road
Atlanta, GA 30333
Phone: (800) 232-4636
E-mail: Via website
Twitter: @CDCgov
www.cdc.gov

Centers for Medicare & Medicaid Services
7500 Security Boulevard
Baltimore, MD 21244
Phone: (800) MEDICARE (633-4227)
E-mail: Via website
Twitter: @CMSgov
www.cms.hhs.gov

U.S. Bureau of Labor Statistics
Postal Square Building
2 Massachusetts Avenue, NE
Washington, DC 20212-0001
Phone: (202) 691-5200
E-mail: Via website
Twitter: @BLS_gov
www.bls.gov

Resources verified April 2014.

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