Investment in research saves lives and money

Chronic Obstructive Pulmonary Disease (COPD) is a term used to describe a group of lung diseases, including emphysema and chronic bronchitis, characterized by shortness of breath and a chronic cough.

Today:

- COPD is responsible for 3 million deaths, or 6% of all deaths worldwide. *
- 6.8 million adults, or nearly 3% of the total population, are suffering from COPD in the U.S. A
- COPD is the third leading cause of death in the U.S. *
- Every 4 minutes, someone dies in the U.S. of COPD, totaling on average 120,000 deaths annually. 
- Smoking is linked to an estimated 80% of COPD-related deaths. Female smokers are 13 times more likely, and male smokers are 12 times more likely, to die from COPD than their non-smoking counterparts. A
- COPD is the primary cause of 285,000 visits to the emergency department (ED) annually. A

The Cost:

- The total direct and indirect costs associated with COPD is nearly $50 billion in the U.S. *
- The direct healthcare costs for caring for Americans with COPD is $29.5 billion. Medicare and Medicaid are responsible for a majority of these costs, 51% and 25% of the total amount respectively. A
- If current trends persist in the U.S., the direct healthcare costs for adults with COPD will surpass $90 billion by 2020. A

* AMERICAN LUNG ASSOCIATION <WWW.LUNG.ORG>
A PIETRANGELO, A. AND G. T. KRUCK. HEALTHLINE, 2015. <WWW.HEALTHLINE.COM>
A WORLD HEALTH ORGANIZATION <WWW.WHO.INTERNET>
A NATIONAL HEART LUNG AND BLOOD INSTITUTE <WWW.NHLBI.NIH.GOV>
A CENTERS FOR DISEASE CONTROL AND PREVENTION <WWW.CDC.GOV>

HOW RESEARCH SAVES LIVES:

- Statins, a class of drugs used to lower cholesterol, are associated with a 30% decrease in all-cause mortality in the 3 to 4 years following first admission for COPD. This finding remains unchanged when factoring in preexisting or comorbid conditions from which a COPD patient may suffer. A

- A randomized pilot study observed the outcomes of community-based integrated care for “frail” COPD patients. Many benefits resulted from the integrated care, which involved an individualized care path and assistance from a healthcare coordinator, including reduced visits to the ED, enhanced self-management of care, reduced levels of depression and anxiety, improved health-related quality of life, and reduced mortality. A

HOW RESEARCH SAVES MONEY:

- Administering oral nutritional supplements to COPD patients 65 and older during their in-patient stay in a hospital has been found to reduce direct medical costs by 12.5%, saving on average $1,570 per patient. Additionally, of those who received the supplements, the average length of stay was reduced by nearly 2 days, a 21.5% decrease, and readmission rates fell by 13.1%. A

- 55% of individuals with COPD suffer from anxiety or depression. A study funded in part by the Agency for Healthcare Research and Quality (AHRQ) and the Patient Centered Outcomes Research Institute (PCORI) showed that COPD patients with coexisting psychological conditions, such as depression and anxiety, are more likely to be readmitted after a hospitalization for COPD-related complications by up to 14%. COPD readmissions cost $924 million annually in the U.S. By addressing these treatable comorbid mental health conditions in COPD patients, costly re-hospitalizations can be avoided. A

Saving Lives

Saving Money

Karen Deitemeyer

NAME: Karen Deitemeyer

AGE: 69

CONDITION: COPD

When Karen was able to quit smoking after 30 years, she thought she had prevented further negative health effects. So she was surprised when she was diagnosed with severe COPD 10 years later in 2001. She thought her shortness of breath and chronic bronchitis were simply due to getting older. But that day, her doctor prescribed her several inhalers, medications and oxygen.

She describes living with COPD as “slowing down. I can’t do as much as I’d like.” She had to retire early from work and stop volunteering with sick children because of the increased susceptibility to infection. Pulmonary rehabilitation, using exercise and education to improve breathing, was “one of the most important things” in managing her disease, she said. Exercising with COPD is challenging, Karen’s shortness of breath requires her to bring her oxygen tank with her.

Still, Karen stays active, going to the beach, visiting her three grandchildren, and being an outspoken advocate for more research into treatments for COPD. She travels around the country educating other COPD patients, pharmaceutical companies, and policymakers on behalf of the COPD Foundation. Several years ago, Karen spoke at a congressional briefing about her experience living with COPD.

Karen is also a breast cancer survivor and wants the same support cancer receives for COPD. “The treatments for breast cancer are out there because there has been money for research. And COPD kills more women than breast cancer and diabetes combined.”

Karen enjoyed meeting scientific researchers at the NIH working to find better treatments for COPD. “They are very passionate about what they do and they want to help, but they need the funding to be able to do it.”

#8 in a series

“If you think research is expensive, try disease.”

- Mary Lasker 1901-1994

Karen Enjoys Meeting Scientific Researchers At The nh working To Find Better Treatments For COPD. “They Are Very Passionate About What They Do And They Want To Help, But They Need The Funding To Be Able To Do It.”
Hope for the Future:

- **Cureveda**, a public-private partnership between the National Institutes of Health (NIH), Johns Hopkins University Bloomberg School of Public Health, and GlaxoSmithKline, seeks to understand COPD on a molecular level. While most current treatments aim to reduce symptoms, Dr. Shyam Biswal, Cureveda’s co-founder, hopes to identify targets within the body to treat COPD at the source, curing the condition rather than addressing the symptoms.*

- A clinical trial led by University of North Carolina at Chapel Hill, in collaboration with the National Heart, Lung and Blood Institute, is currently recruiting participants to study potential biomarkers for COPD interventions. Researchers will look for accurate ways to measure improvement in COPD patients, which could then be used in future clinical studies. These new benchmarks would allow researchers to shorten study timeline, delivering medical innovations to patients more quickly.*

- Several different interventional clinical studies are being carried out by Novartis Pharmaceuticals to study the safety and efficacy of newly developed therapeutics. By collecting information on the lung volume, airway function, and quality of life of individuals with COPD, Novartis is carefully assessing the benefits of these new medications.*

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The Bottom Line:

**COPD** is a chronic, debilitating disease that afflicted millions of Americans. Despite its prevalence, there is still no cure. Current treatments consist of symptom management, and do not address the source of the condition. To improve the lives of those with COPD, increased funding for research is desperately needed.

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