

The Hidden, Deadly Disease

The Fifth Largest Disease-Like Killer of Americans Remains Virtually Unknown

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Introduction

There is a medical fact-of-life that is the fifth largest killer of Americans in today's society. No-one is immune – it kills young and old, the critically ill and the otherwise seemingly healthy.

This killer tends to concentrate on those over 45 – and especially those over 65 – as well those with chronic (but easily-survivable) health conditions, such as diabetes, heart disease and HIV, as well as those who have had a transplant. But it can kill anyone. Perhaps most concerning, it is totally preventable. Yet few Americans are even aware of this killer – and that includes “experts”

This condition kills more than 125,000 Americans every year. Put in perspective, that number is higher than all of the American soldiers who died in every war since 1945, including Korea, Vietnam, Iraq and Afghanistan.

In America, in 2009, according to the Centers for Disease Control and Prevention of the National Institutes of Health, the leading causes of death in America were:

- Heart disease: 599,413
- Cancer: 567,628
- Chronic lower respiratory diseases: 137,353
- Stroke (cerebrovascular diseases): 128,842
- **Unknown Killer: 125,000**
- Accidents (unintentional injuries): 118,021
- Alzheimer's disease: 79,003
- Diabetes: 68,705

- Influenza and Pneumonia: 53,692
- Nephritis, nephrotic syndrome, and nephrosis: 48,935
- Intentional self-harm (suicide): 36,909
- HIV/AIDs 17,774

This un-reported and seemingly unknown cause of death not only kills 125,000 Americans each year – that’s five percent of all the Americans who die from all causes each year – also costs American anywhere from \$180 billion to more than \$300 billion each year – more than 14 percent of America’s entire healthcare budget.

However, because this health crisis is not carefully tracked, the actual cost is subject to debate by experts – but even the most sanguine of these experts still believes that this unseen killer costs America each year more money than the cost of servicing the national debt (see Appendix Two, below).

This Preventable Killer

Some of these types of fatalities are preventable (others are the natural result of aging, such as Alzheimer’s, or are caused by unknown factors, such as many cancers). However, none of those causes of death are more preventable than this mystery killer.

What kills 125,000 Americans each year, and costs our society as much or more than servicing our national debt? The mis-use and mis-management of prescription pharmaceuticals. Some of these deaths are caused by mis-reading labels and taking the wrong medicines, or the wrong combination of medicines at the wrong time. Other of these deaths are caused by the intentional mis-use of prescription medicines, especially by those who are on a tight budget and reach out to this false economy.

However, it appears that the greatest single cause of death from the mis-use of prescription pharmaceuticals comes from sheer forgetfulness. People forget to take the right meds, in the right combinations, at the right time, and it kills them.

According to the Journal of the American Medical Association, if this problem was classified as a disease, it would rank as the fifth leading cause of death in the United States. Considering the damage it causes in terms of health – and of life itself – not to mention the astronomical and soaring costs incurred by individuals, families, healthcare facilities and society as a whole, perhaps it should be classified as a disease.

If it were, more efforts would almost certainly be put into finding effective solutions to this massive, multi-phasic problem.

Run the Numbers

Consider some of these facts:

The Institute of Medicine reports that at least 1.5 million Americans experience at least one adverse drug reaction each year. Not all of those are caused by patients who make mistakes when they take their medications, but according to the American Heart Association, nearly 60 percent of those who take five or more medicines daily – regardless of their age – do make mistakes when taking their medications, and 58 percent of seniors make mistakes regardless of how many prescription medications they take each day.

Five prescriptions isn't a "magic number" – with four billion prescriptions dispensed annually, it should come as no surprise that 32 million Americans take three or more meds per day, and according to one society of professional pharmacists, that number is often more than enough to create problems, mistakes and medical risks, including death.

The Centers for Disease Control and Prevention put that fact in perspective when it reported that 37 percent of all Americans aged 60 or older – a fast-growing number already well above 40 million Americans and more than 13 percent of the total US population – are among those taking five or more medicines per day.

The CDC, the authoritative Becker's Hospital Review, and the American Heart Association go further. They report that 10 percent of the 39.4 million U.S. hospital admissions in 2009 - that's 3,940,000 individual hospital admissions – were due to what the medical professionals call "medication non-compliance." Those patients stayed an average of 4.2 days, accounting for a total of 16,548,000 hospital days, costing an average of \$2,000 per day (that's \$33,096,000,000) – which comes to a bit more than 33 billion dollars in hospital stays because of people making mistakes while taking their prescription medicines.

The problems don't stop at the hospital. The American Heart Association reports that 23 percent of all nursing home admissions are due to patients failing to take their own prescription medicines properly, and even those who have caregivers are not immune. This leads to 280,777,100 patient-days in nursing homes because of mis-managed prescriptions. Caregiver's Home Companion, a respected information source for the millions of Americans who provide care to family members or friends, puts a price tag on this number: \$53,909,203,200 for nursing home stays triggered by mis-managed prescription medicines.

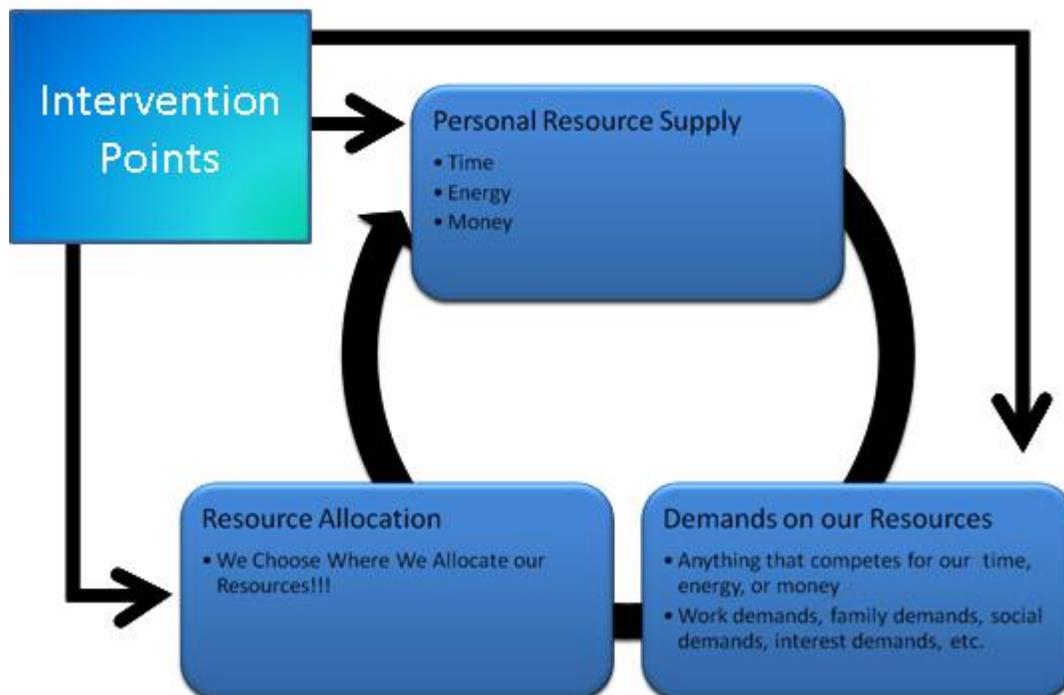
That’s nearly double the cost of hospital stays for the same problem, and without even considering home health care costs for the 23 percent of the 1.5 million patients in home care situations (with costs averaging \$20 per hour for such care), inpatient care each year – directly attributable to mis-managed prescription meds – tops \$90 billion dollars in the U.S. alone each year – and this number grows with each passing year.

Making A Case For The Fifth Most Deadly Disease

“Official” diseases are well-served by a variety of financial resources and advocacy groups; they often have no desire to see other health-related problems be considered “diseases,” if only out of a fear that the pie will have to be divided into more slices, reducing their share of that multi-billion dollar pie.

This “pie” consists of a variety of factors, illustrated by this Resource Allocation Model created by St. Louis University:

Resource Allocation Model



This graphic (above) speaks to an individual's allocation of personal resources, but this is clearly applicable to economic resources provided by various "disease" funding sources. These include:

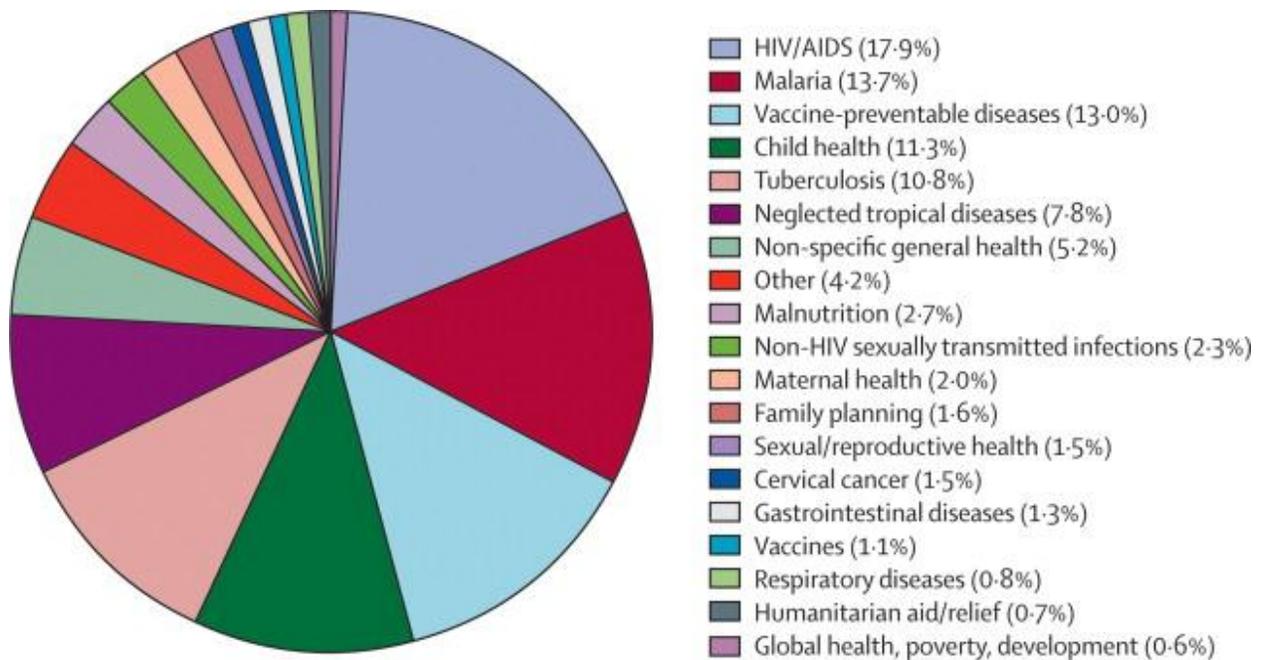
- Not-for-Profit Foundations
- Governmental Grants (CDC, National Institutes of Health, etc.)
- Corporations
- Charities, both secular and faith-based
- Individual donations

In a sense, every "cause" is competing with every other cause for limited funding. The competition isn't as dire as it seems, since so much of the funding is locked into allocation silos – X for childhood diseases, Y for cancer-related diseases, Z for heart-related diseases, etc.

At one time in the '80s and the '90s, when a new and politically-charged disease arose on the scene, traditional funding recipients battled to keep the new kid on the block (HIV/AIDS) away from the funding trough.

However, that battle has been largely over for nearly 20 years now, and since that time, no new and significant disease had stepped forward, demanding to be considered for funding. When that happens, expect the existing causes to dig in and fight for their share.

This allocation of funding is well-illustrated in an article in the Lancet reviewing the charitable giving related to disease entities by the Bill and Melinda Gates Foundation, and especially by this graph (below) illustrating how the massive Gates "pie" is allocated among the various causes supported by that charitable business innovator:



Every appropriate disease-related organization and cause was lining up for a “piece of the action,” from the Gates Foundation and from every other conceivable source. And while they may fight among themselves, they also tend to band together to keep “new” causes out of their pie.

However, despite the internecine warfare sure to erupt if a “new disease” appears on the horizon, the very size of the problems stemming from the mis-use and mis-management of prescription drugs, not to mention the horrendous annual financial cost – and the almost unimaginable death toll – cry out for this problem to be identified and defined as a “disease.”

This should be done in order that charitable, governmental, institutional and other grant-and-donor funds be made available to define the problem, address the problem, identify potential solutions – and then to model solutions and bring them into the world.

Sources

The following are some of the sources reviewed during the development of this White Paper. While these sources were helpful, all conclusions (and any mistakes) are those of the author, and not of the sources.

- Centers for Disease Control and Prevention
- National Vital Statistics Report (NVSR), “Deaths: Final Data for 2009”
- Center on Budget and Policy Priorities
- U.S. Census Bureau, 2010 U.S. Census
- Feinberg School of Medicine, Northwestern University
- Journal of the American Medical Association (JAMA)
- American Heart Association
- Institute of Medicine (IOM)
- A Place for Mom
- Professional Society of Pharmacists
- National Care Planning Council
- Institute for Public Affairs
In These Times
- Dispose My Meds
- Ft. Lauderdale Sun Sentinel (daily newspaper)
- Wall Street Journal
- Becker’s Hospital Review
- Caregiver’s Home Companion
- Saint Louis University (<http://www.slu.edu/school-for-professional-studies-home/organizational-health-initiative/how-ohi-can-help-you>)
- The Lancet (<http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2809%2960571-7/fulltext>)

Appendix One

Facts about at-risk populations and the misuse of prescription medications (source: Nationwide PharmAssist).

- There are 40,267,984 senior citizens in the United States. (Source: U.S. Census Bureau, 2010 Census.)
- Senior citizens represent 13% of the population of the United States (Source: U.S. Census Bureau, 2010 Census)
- The Journal of the American Medical Association recently reported that if adverse drug reactions were classified as a disease, it would rank as the fifth leading cause of death in the United States.”
- A recent study from the Feinberg School of Medicine at Northwestern University indicated that a stunning sixty percent of paid caregivers made mistakes when they were sorting medications for people in their care. It also indicated that a third of the caregivers had trouble reading directions for medications.
- Regardless of age group, up to 59% of those on five or more medications per day are taking them improperly. (Source American Heart Association AHA)
- *According to the Institute of Medicine (IOM), at least 1.5 million Americans experience adverse drug events (ADE) annually*
- 58% of all seniors make some kind of mistake taking their meds (Source: A Place For Mom, Inc.)
- Over 200 billion dollars per year spent as a result of medication mismanagement complication
- Among older Americans (aged 60 and over), more than 76% use two or more prescription medications and 37% use five or more. . (Source: Centers for Disease Control and Prevention)
- Close to 32 million American prescribed three or more medications which can lead to drug interactions and confusion over schedule and dosages (Pharmacist Society Professionals)

- Older Americans account for over one third of all medical spending in the United States (Source: National Care Planning Council)
- Pharmaceuticals \$300 billion dollar industry (Source: In These Times And The Institute For Public Affairs)
- 4 billion prescriptions dispensed each year (Source: Dispose My Meds)
- The latest statistics calculate that \$400 billion of in-kind care is provided annually by family caregivers (Source: Sun Sentinel)
- 10% of all hospital admissions are due to patients failing to take prescription medications accurately; and the average length of stay in hospitals due to medication non-compliance is 4.2 days. (Source American Heart Association AHA)
- Number of discharges from nonfederal short-stay hospitals by persons age 65 and over: 12.9 million (Source: Centers for Disease Control and Prevention)
- 23% of nursing home admissions are due to patients failing to take prescription medications accurately. (Source American Heart Association AHA)
- 16,100 total nursing homes in the United States (Source: Centers for Disease Control and Prevention)
- 1.7 million total nursing home beds in the United States (Source: Centers for Disease Control and Prevention)
- 1.5 million total nursing home residents in the United States (Source: Centers for Disease Control and Prevention)
- Occupancy rate of Nursing Homes in the United States: 86 percent (Source: Centers for Disease Control and Prevention)
- The average length of time since admission within a nursing home is 835 days (Source: Centers for Disease Control and Prevention)
- 1.5 million total patients of Home Health Care in the United States (Source: Centers for Disease Control and Prevention)

- Home health care average length of service: 315 days (Source: Centers for Disease Control and Prevention)
- Life expectancy: 77.9 years (Source: Centers for Disease Control and Prevention)
- \$2.6 trillion that will be spent in health care this year (2011) (Source Wall Street Journal)
- Two-thirds of Americans currently use medications: 49% use prescription drugs and 30% use nonprescription drugs. (Source American Heart Association AHA)

Appendix Two

Federal Budget Outlays by Budget Function (source – U.S. Government)

Total outlays by budget function

Function	Budget
General Science, Space and Technology	\$30.991 billion
Energy	\$23.270 billion
Agriculture	\$19.173 billion
Community and Regional Development	\$31.685 billion

Function	Budget
Social Security	\$779 Billion
National Defense	\$716 Billion
Income Security (welfare benefits)	\$580 Billion
Medicare	\$485 Billion
Health	\$362 Billion
Net Interest Payment on National Debt	\$225 Billion
Education, Training Employment & Social Services	\$139 Billion
Veterans Benefits and Services	\$130 Billion
Transportation	\$103 Billion
Commerce (including housing credit)	\$80 Billion
Justice (including Federal Prisons)	\$62 Billion
International Affairs (including Foreign Aid)	\$56 Billion
Natural Resources & Environment (including EPA)	\$43 Billion
Government Operations	\$32 Billion
Community & Regional Development	\$32 Billion
General Science, Space & Technology	\$31 Billion
Energy	\$23 Billion
Agriculture	\$19 Billion