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Bridging Gaps

The Need for Policy that Connects Veterans to Medical Innovation

SoldierStrong Access

Introduction

The United States is known for innovation.

From the telegraph to the lightbulb, from Kitty Hawk to Apollo 11, America's technological ingenuity has broken boundaries again and again. In addition to reimagining modern life, American innovation has also reshaped how the United States protects its homeland, its allies and its interests abroad.

Anti-ballistic missile defense systems, for example, equip the United States to ward off attacks before they reach American soil. High-definition satellite imaging offers troops on the ground unprecedented coordination capabilities. Breakthroughs continue to happen every day, often made possible by substantial support from the federal government.

New technology could also offer innovative health care solutions for veterans. Breakthroughs made in very specific projects often have a wider range of applications. The Manhattan Project, for instance, produced the atomic bomb but also led to the advent of nuclear medicine.

But new technology doesn't always benefit members of the Armed Services once they return to everyday life. Returning warriors often face physical and mental challenges very different from those of the general public. Yet men and women who used cutting-edge equipment on the battlefield cannot access similarly advanced technology when they return home with wounds sustained during service.

This gap presents an opportunity – for researchers, for policymakers and, most importantly, for American veterans.

Veterans: A Unique Population

Armed service demands unique skills, asks great sacrifices and poses high risks. Today more service members are meeting those challenges and surviving, thanks largely to improvements in battlefield medicine. They now constitute a growing population of injured veterans, whose needs sometimes go unaddressed.

Returning combat veterans have survived distressing situations and often sustain life-altering injuries. Some scars are apparent, such as blast amputations, gunshot wounds and urogenital injuries. Others are less visible, like chronic pain, respiratory ailments, cancers and traumatic brain injuries.[1]

Such injuries are far more common among veterans than among civilians. Chronic pain, for example, affects roughly one in three Americans.[2] But among veterans, it's much more common, with 82% of post-9/11 veterans reporting symptoms.[3] A recent study also found that post-9/11 veterans with traumatic brain injuries suffer from higher overall mortality than the general population.[4]

Returning veterans bear emotional and psychological injuries too. About one in three veterans lives with post-traumatic stress, with male veterans being three times more likely to live with the condition than male civilians.[5] More than one in 10 veterans is diagnosed with depression, though many more are likely affected. And veterans comprise nearly one-fourth of all suicide deaths in the United States.[6]

Re-entering civilian life with these injuries, combined with an abrupt shift from highly structured military life, can prove a difficult adjustment for veterans.

A number of service members are discharged annually only to grapple with mental health struggles, substance use, homelessness and criminal activity. About two in five are diagnosed with a mental health or behavioral adjustment condition. And roughly a third of veterans report having been arrested and jailed, compared with less than one-fifth of non-veterans.[7]

As a population, veterans clearly need and deserve innovative health solutions.

Gaps in Care

The U.S. Department of Veterans Affairs provides services and benefits to more than 15 million veterans, whose service stretches as far back as World War II.[8,9]

Since its inception in the late 19th century, the department has played a vital role in veterans health care. With a budget exceeding $300 billion in FY2023, it will continue to do so, fielding nearly 60 million appointments at its nearly 1,300 health facilities.[10,11]

But the VA's mission is service delivery. The department needs more tools and resources to support research and technological innovations that would address veterans' unique medical needs.

Yet veterans badly need medical innovation tailored to their specific needs. Consider, for example, the prosthetic arm typically provided for veterans who have undergone amputation. The prosthetic is based on a patent filed during World War I, more than 100 years ago.[12]

These types of outdated technologies can and should be replaced with novel, modern medical solutions.

Some efforts toward health care innovation for veterans are underway.

The Veterans Health Administration Innovation Ecosystem, for example, is a step in the right direction. The agency attempts to bring in private-sector innovators, though it functions more like a think tank and is not designed to engage other federal agencies. The Veterans Administration's Technology Transfer Program is also a valuable endeavor. This program takes novel ideas from VA employees and helps them license those ideas into products that can be sold commercially.

The program is not, however, designed to research and develop technologies specifically for injured veterans. In short, the growing population of injured veterans still lacks a dedicated source of medical innovation.

Gaps in Innovation

The United States Armed Services have access to cutting-edge technology.

That's in large part due to the government's Defense Advanced Research Projects Agency, which provides research and development for the Department of Defense. The model, established in the late 1950s, inspired a similar research agency for the Department of Energy. The agency has, among other endeavors, supported the development of low-carbon technologies to slow climate change.[13] More recently, President Joe Biden proposed an Advanced Research Projects Agency for health care in 2022.[14]

Innovations powered by the Defense Advanced Research Projects Agency have proven invaluable in combat situations. Take bomb-diffusing arms and battle exoskeletons, for example. Initially designed by the agency for combat and hazardous environments, these robotics can be adapted to help veterans manage their injuries in a civilian context.

While much government-funded research on behalf of national defense is classified, it is public knowledge that some agencies continue to fund projects with the potential to revolutionize the lives of injured veterans. Yet examples of battlefield technology being repurposed for injured veterans are sparse.

That's because no clear, direct or dedicated channel for technology transfer exists between defense researchers and the Veterans Administration. Federal agencies are notoriously "siloed," and research conducted by one agency can be held back by bureaucracy, security clearances and even organizational rivalry.

This lack of communication and coordination prevents new technology from benefitting the country's wounded veterans.

Moving Toward Policy Solutions

America is forever indebted to the men and women who defend the United States – and who carry the scars of service as they resume civilian life. One way for policymakers to honor that debt is by connecting injured veterans with the technology that allows them to adapt and function after they leave the Armed Services.

But while infrastructure is firmly in place to innovate for defense, the United States does not yet have the necessary channels or institutional structures to put innovation to work for veterans.

Whether it's establishing paths to share technological innovations more efficiently or developing a structure dedicated specifically to research for injured veterans, policy solutions are within reach.

Now is the time to connect cutting-edge technology and research with the injured heroes who need it.

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