Gays in the Military
Eventually, New Facts Conquer Old Taboos
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Taboos, Stigmas, and Sacred Cows

Truth might hurt, but not nearly as much as falsehoods often do. Falsehoods can ruin lives by fueling discrimination and provoking ostracism. In a less nefarious vein, falsehoods can engender blind adherence to costly assumptions.

Our cover story on gays in the military, however, shows that facts can eventually conquer taboos. Since 1993, evidence has become available to show that gays are nearly as prevalent in the military as they are in civilian life and, as important, that gay service members generally intend to remain discreet about revealing their sexual orientation, even if allowed to serve without restriction. Evidence has also shown that cohesion in combat stems not from preconceived, shared values and attitudes but rather from the shared dedication to the mission. Therefore, little will likely change in the U.S. military with the repeal of its “Don’t Ask, Don’t Tell” policy, although there might be fewer cases of substance abuse and mental disorders among gay service members, because they will no longer need to hide their sexual orientation.

Then there is the stigma against the mentally ill. Our perspectives article on “Facing the Music” discusses how the January shooting of U.S. Congresswoman Gabrielle Giffords by an allegedly mentally ill gunman elicited all the wrong reactions (having to do with blame) and none of the right ones (having to do with health and safety). Because when it comes to mental illness, society tends to place stigma above science.

And then there are the sacred cows. Two of our news articles challenge common assumptions driving U.S. energy policy. One article undercut the idea that alternative liquid fuels can yield direct military benefits; the other finds that a federal tax on crude oil would yield more benefits than could the nation’s current means of funding the transportation system. But in these cases, blind faith in alternative fuels and blind denials of oil taxes amount to costly falsehoods.

In all four of these cases, RAND researchers have not made themselves popular by compiling evidence that challenges old taboos, widespread stigmas, and sacred cows. But in the long run, revealing the truth will hurt far less.

—John Godges

Correction
The Winter 2010–2011 issue of RAND Review identified Charley Shimanski as regional chief executive officer for the American Red Cross. His correct title is senior vice president, disaster services, for the organization.
Variations in Treating Noninvasive Breast Cancer Affect Outcomes

How physicians decide to treat the most common type of noninvasive breast cancer, known as ductal carcinoma in situ (DCIS), could determine whether the condition recurs as DCIS or evolves into invasive breast cancer in five or ten years. The health outcomes are associated in part with the treating surgeon, and the wide variability in treatment offers a potential opportunity to improve or to standardize care.

So suggests a recent RAND study that looked at the health records of nearly 1,000 women who were diagnosed with DCIS in the United States between 1985 and 2000. The study found that the rates of recurrent DCIS or of invasive cancer stemming from DCIS could be reduced 15 to 35 percent over five years if surgeons remove at least 2 millimeters of surrounding healthy tissue when they excise tumors and if physicians put patients who receive breast-conserving surgeries on post-surgery radiation therapy.

Sometimes called “stage-zero” breast cancer, DCIS is almost never fatal. Some 96 to 98 percent of women will be alive and disease-free ten years after being diagnosed and treated. However, because physicians cannot say which DCIS cases will turn into invasive breast cancer, they treat all cases with surgery, sometimes followed by radiation.

Women diagnosed with DCIS who had mastectomies had the lowest risk of recurrence or invasive breast cancer, as long as the margins of excised tumors were at least 2 millimeters. Women who underwent breast-conserving surgeries followed by radiation therapy experienced slightly higher risks. The women with the highest risks of DCIS recurrence or of developing invasive breast cancer over five to ten years were those who had breast-conserving surgery and no radiation. In all cases, women whose surgeons removed 2 millimeters or more of healthy tissue around abnormal cells experienced lower risks of recurrence than those whose surgeons had left narrower margins (see the figure).

While this study confirmed the conclusions of earlier ones in finding that larger excision margins and radiation therapy lower the risk of breast cancer recurrence, this study broke new ground in finding that these two critical determinants vary markedly from one surgeon to the next. According to the study, published in the Journal of the National Cancer Institute, the variability might reflect differences in surgeons’ knowledge, attitudes, and beliefs.

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**The Most Successful Treatments of a Common Breast Cancer Involve Excising More Tissue Around Tumors and Delivering Radiation After Breast-Conserving Surgery**

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<th>Width of surrounding healthy tissue removed with tumor</th>
<th>Rate of DCIS² recurrence or of DCIS evolution into invasive breast cancer within five years after mastectomy or breast-conserving surgery</th>
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<td>≥ 2 millimeters</td>
<td>0.5%</td>
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<tr>
<td>&lt; 2 and &gt; 0 millimeters</td>
<td>6%¹</td>
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<td>0 millimeters</td>
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<td>Mastectomy</td>
<td>4%</td>
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<td>Breast-conserving surgery with radiation treatment</td>
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<td>Breast-conserving surgery without radiation treatment</td>
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<th>Rate of DCIS² recurrence or of DCIS evolution into invasive breast cancer within five years after mastectomy or breast-conserving surgery</th>
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¹ Margins of such small sizes are rare with mastectomies and always represent special cases (for example, a tumor against the chest wall).

² DCIS = ductal carcinoma in situ.
News

Insurance Exchanges: Booster Shots to Employee Health Coverage

Once the new U.S. health care reform law takes full effect in 2016, far fewer U.S. residents under age 65 will go without health insurance, and many Americans will be covered by businesses that have not offered coverage to employees in the past.

Those are among the main findings of a recent RAND study that assessed the likely impact of the law on employee health insurance coverage. The study found that the proportion of businesses, especially small businesses, in the United States offering insurance to employees will grow by more than a third—81 percent of U.S. employers will offer insurance under the new law, compared with 59 percent today. The fraction of residents under age 65 without insurance will fall from 19 to 6.5 percent.

Signed into law by President Obama in March 2010, the Patient Protection and Affordable Care Act is designed to increase the number of Americans covered by health insurance. It does this by, among other things, creating new markets for purchasing insurance (known as state health insurance exchanges) and imposing fines both on certain employers that do not offer coverage and on individuals who carry no insurance.

RAND’s study, led by economist Christine Eibner, modeled how people and firms will respond to the new insurance exchanges. As shown in the figure, the health care reform law is expected to increase the rate at which firms of all sizes offer coverage. Eighty percent of firms with 50 or fewer workers will offer it, up from 57 percent under the status quo; 98 percent of firms with 51 to 100 workers will offer it, up from 90 percent.

Why will more employers offer coverage? The individual mandate. Because workers with no health insurance will be fined, their demand for employer-sponsored coverage will grow. In many cases, workers will prefer employer-sponsored coverage to other options because it is generally paid with pretax dollars, rather than after-tax dollars. And though some firms will choose to drop coverage because of the new law’s expansion of Medicaid benefits and the new federal subsidies for low-income individuals to purchase insurance, the study predicted a net increase in employer-sponsored coverage.

Employers will remain the primary source of health insurance coverage in the United States, although about 60 percent of all businesses will offer their coverage through the exchanges following the reform. Over time, 35 million workers (13 percent of the population under 65) will receive exchange-based coverage through an employer.

The analysis also examined the likely impact of a key choice facing states: whether to open their exchanges to all businesses or limit them to businesses with 100 or fewer workers. The results showed that opening the exchanges to large businesses would not affect the total number of people insured; however, this policy would significantly increase the number of people enrolled in exchange-based coverage—from 68 million to 139 million people.


Interactive Graphic

Scan the code with your smartphone to view additional comparisons of estimated insurance coverage before and after implementation of the Patient Protection and Affordable Care Act. Or view this exclusive online content at www.randreview.org/online/

The U.S. Health Care Reform Law Will Likely Increase the Rate at Which Firms of All Sizes Offer Health Insurance

The U.S. Army, Navy, Marine Corps, and Air Force have established programs to reduce dependence on fossil fuels in the use of aircraft, combat ships and vehicles, and supporting equipment. But if the U.S. military increases its use of alternative fuels, there will be no tactical or operational benefit to the nation’s armed forces, according to a new RAND study.

The study, conducted in response to a congressional directive, assessed how the military could obtain alternative fuels in the near term in a way that is affordable and reduces greenhouse gas emissions. The study also examined the military utility of forward-based alternative fuel production, the goals and progress of the military services in developing and testing alternative fuels, and the prospects for commercial production of alternative military fuels.

In terms of technical viability, a number of alternative fuels can meet military requirements and potentially lower greenhouse gas emissions. “Of the technically viable near-term options, Fischer-Tropsch fuels, produced using a combination of coal and biomass, are the most promising for affordably and cleanly meeting specifications for military fuels,” said James Bartis, lead author of the study and a senior policy researcher at RAND. “With carbon dioxide capture, they can have lifecycle greenhouse gas emissions that are less than half of those of petroleum-derived fuels.”

Although seed oils and waste oils can be processed to yield a viable military fuel, the production potential of these fuels is limited to a fraction of a percent of current national petroleum demand. Advanced approaches, such as algae-derived oils, are under development; but at present, the near-term prospects for a commercially competitive product remain highly uncertain.

The study examined two approaches for producing alternative fuels in or near combat theaters but found that neither approach offered a military advantage because neither had a smaller logistics burden than the current approach. The study also found that military efforts to test and certify alternative fuels for tactical systems are far outpacing commercial development.

“It makes more sense,” according to Bartis, “for the military to direct its efforts toward using energy more efficiently. Providing warfighters with more energy-efficient equipment, such as aircraft or combat vehicles, improves operational effectiveness, saves money, and reduces greenhouse gas emissions.”

Considering the absence of direct military benefits in using alternative fuels, the study suggests that the U.S. Congress and the U.S. Department of Defense reconsider whether defense appropriations should continue to support advanced alternative fuel technologies.

Tax on Crude Oil Deemed Viable Alternative to Federal Gasoline Tax

Federal gasoline and diesel taxes that U.S. drivers pay today don’t generate enough revenue to cover the costs of constructing new roads and maintaining the transportation system that they are intended to fund. But the federal government could fully fund its surface transportation infrastructure needs by levying a percentage tax on crude oil and imported refined petroleum products.

So suggests a new RAND study that examined the effects of taxing crude oil consumed in the United States. Today, U.S. drivers fork over 18 cents a gallon in federal gasoline taxes and 24 cents a gallon for diesel fuel every time they fill up. Revenue from these taxes moves through the federal Highway Trust Fund to build and maintain highways and bridges and to fund other surface transportation.

Taxes at the pump have not been raised since 1993. Opposition to raising any taxes, including gasoline taxes, is strong in the U.S. Congress. In recent years, several attempts to increase gas taxes have failed and revenue has come up increasingly short, while gasoline consumption in the United States has fallen or stagnated. With improved vehicle fuel economy, the prospects that these taxes will fully underwrite federal annual ground transportation outlays anytime soon are dim.

“In 2008, the trust fund took in $36 billion but had $49 billion in expenditures. That shortfall could soon balloon. Over the next six years, the federal government projects that its appropriations for ground highway and transit infrastructure will require $83 billion a year,” said Keith Crane, a RAND senior economist who led this study.

One way to generate that revenue would be to replace taxes at the pump with a percentage tax on all crude oil and imported refined petroleum products consumed in the United States. As RAND has also proposed in other studies, the United States could adopt a tax on vehicle miles traveled. However, in the short to medium term, RAND found that a tax on oil would have a number of advantages. It could replace several taxes with a single one. It could be adjusted automatically to match expenditures, regardless of the rate of inflation. It would spread the burden of costs across all users of petroleum products, not just motorists and truckers. And it could help fund national security expenditures to safeguard the sources and sea-lanes used to import oil.

The tax rate would depend on the price of oil. As the figure shows, the rate would range from 10 percent (at $120 a barrel) to 34 percent (at $40 a barrel) to generate the projected need of $83 billion a year to fund federal highway construction and maintenance. At $100 a barrel, the approximate price of benchmark crude at press time, the rate would need to be 13 percent.

This hypothetical oil tax would be collected at refineries. The rate could be adjusted quarterly to account for changes in the price of oil, maintaining annual revenues while reducing the tax percentage if oil prices spike once again. Motorists and truckers would likely see only modest increases in total taxes paid.

However, people who heat their homes with fuel oil would pay federal taxes on petroleum products where they paid none before. Low-income consumers and those in the North and Northeast would likely be affected more by an oil tax than would higher-income consumers or those living in more moderate climates.

In an effort to curb binge drinking and alcohol-related violence in the United Kingdom and to reduce the associated social and health costs, the British government announced plans in January 2011 to set base prices for alcohol sold in England and Wales.

Under the government plan, retailers will no longer be able to sell alcoholic beverages below cost, or for less than the value-added tax and excise duty owed on them. This means that a can of lager must sell for at least £0.38 (U.S. $0.62) and a liter of vodka must go for at least £10.71 ($17.43).

“We know that pricing controls can help reduce alcohol-related violent crime, and this is a crucial step in tackling the availability of cheap alcohol,” said James Brokenshire, Home Office minister for crime prevention. “By introducing this new measure, we are sending a clear message that the government will not stand by and let drink be sold so cheaply that it leads to a greater risk of health harms or drunken violence.”

The government’s plans were based in part on RAND Europe research on the economic effects of alternative alcohol pricing policies. The Home Office had asked RAND Europe to compare the potential effects of three ways to adjust alcohol prices: prohibiting below-cost sales, imposing minimum prices, and increasing alcohol taxes.

The study, led by economist Priscillia Hunt, found that the effect of banning sales below cost would depend on the extent to which retailers now use this pricing strategy. Although the ban would be the least effective of the three options in reducing consumption, it could increase the price of the cheapest drinks and thereby reduce some hazardous or harmful drinking. It would generate no additional revenue for government.

As for minimum pricing, its full effect would depend on the minimum price imposed. But the effect on consumption would be greatest among young and low-income groups, who are more likely to purchase cheaper drinks. Minimum pricing would generate no additional government revenue, either.

Higher taxes on alcohol would affect all drinkers, who would either pay more to drink the same amount, reduce the amount they drink, or turn to cheaper beverages. Taxation has been called a “blunt instrument” because it would target all drinkers, not just those who cause violence or other social harm. Unlike the two other pricing policies, higher taxes would raise additional government revenue.

The study also pointed out that the alcohol market involves a complex interplay among long-term prices, substitute products, and consumer behavior. “[P]rice increases in alcohol may have the unintended consequence of leading to growth or decline in other commodity markets, such as cannabis or tobacco.”

For more information: Preliminary Assessment of Economic Impacts of Alcohol Pricing Policy Options in the UK, RAND/TR-858-1-HO, 2011. As of press time (Web only): www.rand.org/t/TR858-1
A Catastrophe in the Deep Sea Can Help Avert One in Outer Space

If the international space community wants to lower the risks and effects of satellites colliding with space debris, it would do well to take lessons from oil giant BP’s response to the Deepwater Horizon oil spill in 2010, according to a recent RAND study. The study examined whether industry and government approaches to solving problems outside the aerospace industry hold clues for addressing the issue of space debris.

A growing amount of “space junk”—from expired launch vehicles, spent rockets that have exploded, and satellites that have collided or been deliberately destroyed—has been clogging Earth’s orbit ever since the launch of Sputnik in 1957. Today, hundreds of thousands of objects larger than a centimeter in diameter clutter the orbital environment of satellites, and any of these objects is capable of causing a satellite to fail catastrophically. While the risk of collision is low, the effects would be highly disruptive, given the world’s reliance on satellites for communications, navigation, weather forecasting, imagery, and the like.

It may seem odd to turn to BP’s actions surrounding the Deepwater Horizon spill, the largest U.S. oil disaster, for guidance in reducing and mitigating space debris. But RAND trained an analytical eye on that disaster and on eight other analogous problems—acid rain, airline security, asbestos, chlorofluorocarbons, e-mail spam, hazardous waste, radon, and U.S. border control—to uncover common characteristics and remedies that these seemingly disparate public policy challenges hold.

All these challenges involve situations in which society’s behavioral norms fail to prevent people from engaging in unwanted, problem-causing behavior. None of these challenges can be considered “solved,” because their root causes are very difficult to eliminate.

Nonetheless, the Deepwater Horizon event provides apt lessons. It occurred in an environment, like space, where it is difficult to assess the consequences of a catastrophe and where expensive, sensor-laden robots are required to clean up the collateral damage.

BP pursued a variety of remedies on the surface and at the wellhead, some successful, many not. Those responses suggest that effective solutions need to evolve as the problem develops and that tackling a catastrophic event often requires multiple remedies: some to clean up collateral damage, others to address the root cause.

Perhaps the biggest lesson from the Deepwater Horizon spill is that remedies need to be designed and tested under actual operating conditions. The remedies BP fielded during the first 40 days of the spill were ineffective because they had not been tested or proven to work in an extreme deep-sea environment.

The Deepwater Horizon spill also suggests that technical remedies alone are not enough. Oil spills deep underwater belong to a set of problems that are not easily observed by those who cause them or who might be harmed by them. Orbital debris is in that same family.

“However, unlike oil spills where oily pelicans start to appear on the front pages of newspapers, it’s very difficult for most people to intuitively understand the hazards associated with this problem. For this, the space community needs improved methods for assessing and describing the risk posed by space debris,” said Dave Baiocchi, a RAND engineer who led this study along with coauthor William Welser.


A growing amount of “space junk” has been clogging Earth’s orbit.
Above the Fray
U.S. Diplomat Surveys a World of Progress, Priorities

U.S. DEPUTY SECRETARY OF STATE James Steinberg, who was a RAND analyst 20 years ago and now serves as the principal deputy to Secretary of State Hillary Rodham Clinton, returned to RAND in January to outline “where we are” in U.S. foreign policy at the midpoint of the Obama administration’s term. Steinberg’s horizon encompassed the historical legacy inherited by the Obama administration and the future direction envisioned by the administration.

In the nearly two decades since the fall of the Berlin Wall and since Steinberg was at RAND, the two key forces shaping world affairs, he said, have been “the rise of nonstate actors” and the spread of “globalization, interdependence, and shared vulnerability. Currently, the biggest threats to us are not states but the broader changes in the global environment.”

Nonstate actors on the global stage include terrorist groups, non-governmental organizations, multinational corporations, and new international institutions, such as the European Union and the G-20 group of major economies. An increasingly interdependent world has also seen the emergence (or reemergence) of the so-called BRIC countries of Brazil, Russia, India, and China.

“These are not threats,” Steinberg declared. “We welcome the increased global cooperation [from these countries] so that we can harness the greater capacity we need to solve global problems.” Nurturing the BRIC relationships, he said, is the “key to long-term success.”

One thing has not changed in the past two decades, according to Steinberg: “the continued need for U.S. global leadership” on issues from climate change to counterterrorism. “U.S. leadership is arguably more essential today than it was during the Cold War.”

Lingering Legacies
A dual goal of the Obama administration has always been to wind down the war in Iraq while refocusing the war in Afghanistan, said Steinberg. Although both wars have presented unforeseen difficulties, Steinberg reported progress on both fronts.

In Iraq, “we adjusted the withdrawal timetable to match the political time line,” taking into account the protracted period of Iraqi government formation. “This has been successful. This measured approach to departure has played an important role in keeping the country stable, while our firm commitment to depart took the issue of U.S. occupation out of Iraqi politics.”

In Afghanistan, the Obama administration shifted its focus to the interdependence of Afghanistan and Pakistan. “That core insight was critical,” said Steinberg. In the year ahead, there will be greater efforts devoted to the Afghan political process and to civilian reconstruction, he predicted. In the meantime, “The military can help create the conditions for political progress.”

Obama’s originally promised July 2011 date for U.S. troops to begin departing Afghanistan was important because of the signals it sent to those in Afghanistan, Steinberg contended. “It said the U.S. is not an occupying power. That took away the Taliban argument. And it put the Afghans on notice that now is the time to get their act together.”

Steinberg called Pakistan “one of the most consequential challenges facing the United States.” There have been “poor relationships” between the two countries over the past 20 years. “But now we absolutely need a cooperative relationship. We’ve made progress, but it’s very slow. It’s very fragile, but we have to stay the course. We don’t have a choice but to try to make it work.”

Pressing Priorities
Steinberg discussed five new areas of emphasis for the Obama foreign policy team. The first is to help the United States “adapt to the challenges of the 21st century,” principally the financial crisis and the need for new global structures for long-term economic growth.
He pointed to signs of progress: the evolution of the G-20, the ongoing adaptation of global banking regulations, new trade agreements (with the Asia-Pacific Economic Cooperation countries and with South Korea, China, and Brazil). All of these, said Steinberg, suggest “an update of Bretton Woods in process,” referring to the monetary management system fashioned by industrial countries in 1944.

Another top priority is “to shore up the global nonproliferation regime” by showing that the United States is “doing its part to reduce its reliance on nuclear arms.” He cited progress in building respect for the Non-Proliferation Treaty, using the president’s Nuclear Posture Review to offer “negative security assurances” that the United States will not make nuclear threats against states that refuse to develop nuclear weapons, and passing the New Start Treaty with Russia. “That was a critical shot in the arm by both countries to lead the world,” he said.

The third area of focus is a balanced approach toward Iran and North Korea. With respect to both countries, Obama’s hallmark is “to show preference for diplomatic engagement but be prepared to take stronger measures.” The administration has kept the diplomatic channels open with both countries while toughening the sanctions regimes against them. This dual-track strategy, with its broad support from the international community, “makes success more likely.”

Fourth, there is climate change, which Steinberg called “one of the great challenges of our time.” In the first two years of the Obama administration, there has been a “new spirit of commitment and pragmatism among all countries to deal with the challenge,” Steinberg said. He was especially optimistic about the prospects of environmental responses “differentiated by level of development” among the nations of the world. India and China are “getting on board,” he said.

Finally, with regard to China, he stressed that “friend” and “foe” are “not useful categories” to apply to the country. “We have many shared interests, but they are not identical.” The correct strategy, he argued, is to persuade China that it can pursue its national interests in a way that does not collide with U.S. national interests. “We can influence the outcome of the relationship while preparing for the possibility that it doesn’t work out. Powerful internal dynamic forces will influence China as well. And we don’t know how those will play out.”
Facing the Music
Time to Treat Serious Mental Illness Seriously, Say Experts

IMMEDIATELY AFTER THE JANUARY shooting of U.S. Congresswoman Gabrielle Giffords (D-Arizona) in Tucson, the media focused on the nation’s polarized political climate as a likely culprit. But the focus of attention soon shifted to the shooter, who purportedly suffers from schizophrenia, with the mere suggestion of his mental condition frequently used to counter the narrative of political polarization.

Meanwhile, often lost in the debate was the question of how to respond to serious mental illness as something other than a potential source of blame. A RAND Corporation panel discussion—“From Management to Recovery: Emerging Approaches to Serious Mental Illness”—tried to shift the focus once again toward healthier ways of addressing serious mental illness.

Paul Koegel, associate director of RAND Health, moderated the panel. It featured Steve Lopez, the Los Angeles Times columnist who chronicled the mental health struggles of musician Nathaniel Anthony Ayers in The Soloist: A Lost Dream, an Unlikely Friendship, and the Redemptive Power of Music; Ted Sapp, executive director of the Nathaniel Anthony Ayers Foundation; Ron Schraiber, a consumer activist now working for the Los Angeles County Department of Mental Health; and Alex Young, a psychiatrist and researcher at RAND and UCLA who also directs the Veterans Administration Desert Pacific Mental Illness Research, Education, and Clinical Center in Los Angeles.

A Faint Voice
While many of us in urban areas are likely to see serious mental illness right in front of us on our way to get coffee in the morning, few of us really stop to look. Six years ago, Lopez did, on his way to work. “I was transfixed by the music coming from a man playing a violin that was missing two strings. He was next to a shopping cart with all his possessions.” As Lopez recalled, the shopping cart had “Little Walt Disney Concert Hall” written on it.

That man—Nathaniel Anthony Ayers—was a musical prodigy who had attended the Juilliard School. But he developed schizophrenia during his third year, which led him to drop out of Juilliard and, ultimately, out of mainstream life and into homelessness, where Lopez found him on Los Angeles’ Skid Row.

Thus began a journey for Lopez. “As I got to know him, I naively thought I had all the answers—that I could figure out what was wrong with him, find a quick way to fix him,” he said. “But I discovered I was ignorant of the reality he was dealing with.” Lopez also discovered that clinical professionals had very different ideas about how to treat Ayers, ranging from various medications to the belief that involuntary hospitalization and treatment was the only answer.

Lopez ultimately gravitated toward the Mental Health America Village in Long Beach, which uses a recovery model that focuses on “treating and respecting the whole person.” Although frustrated by Ayers’ seeming lack of progress in recovery, Lopez has since come to look at the situation differently.

“I learned to just be his friend, not his doctor, and to not expect any changes. I’ve learned from him about faith, courage, and the human power of the arts. He’s got the passion and love we’re all after, and he’s at peace when he’s in his music.”

Listening to Each Other
Both a consumer and provider of Los Angeles County mental health services, Schraiber has been diagnosed with everything from paranoid schizophrenia to bipolar disorder. He stressed that those who suffer with severe mental illness “want to be recognized, like anyone else, as human beings, not as a mass of symptomatology.”
A mental health activist for decades, he also stressed that “there is still a culture-bound belief system that affects the relationship between the helpers and the helped. The status quo, despite all the stakeholders involved in the system, still entails a reaching down—which makes you feel ‘one down’—rather than a reaching across in partnership.”

There has been progress toward building this partnership over the past 15 years, according to Koegel, of RAND. “Managing symptoms is not viewed as enough any longer. The real goal now is enabling the seriously mentally ill to lead meaningful lives, realize their potential, be accepted into communities, and have a real say in their treatment.”

Young, the psychiatrist, added that the possibilities for recovery for people with serious mental illness have also blossomed. “We now have supported employment that enables over one-half the people with serious mental illness to return to jobs, and family interventions that allow families to take a serious role in treatment.”

In his efforts with the Ayers Foundation, Sapp noted that he is “helping to bring to scale some very innovative approaches, including a concept called Nathaniel’s Place that gives artists who suffer from serious mental illness an opportunity to stay connected, share their gifts, and interact with other artists who serve as mentors for them.”

The science has also improved, according to Young. “We better understand the biology of illnesses, of why people have a hard time functioning even though we have medications to help with symptoms. We’ve learned that there are cognitive issues unrelated to symptoms that affect people’s ability to function socially and interpersonally in the workplace.”

Many Fail to Hear
While the possibilities for recovery are promising, the realities are still sobering. “When we give people a package of options to choose from and educate them about what their options are, improvement can be remarkable,” said Young. “But most people with serious mental illness don’t receive anything like that in this country today.”

Stigma remains a huge impediment to change, according to Schraiber, as the stereotypes that emerged during the Tucson shootings confirm. Such stigma is “just a euphemism for prejudice and discrimination,” he said. “Not only does it make the lives of the serious mentally ill miserable, it also keeps them from seeking the treatment that could make their lives better.”

Even more pointedly, Lopez noted, “Those with serious mental illness who do not—or cannot—get treatment might be more prone to the kinds of violent behavior we saw in Tucson. Rather than promulgating stereotypes about schizophrenia and violence after the attack, the media should have been talking about the growing likelihood that treatment for the seriously mentally ill is at severe risk in the current budget climate.”

Music Video and Art Gallery
Scan the code with your smartphone to watch scenes from the panel discussion and to hear a cello performance by Nathaniel Anthony Ayers that preceded the dialogue. Or view this exclusive online content, along with a photo gallery of artwork created by homeless and formerly homeless artists displaying their works in the RAND courtyard, at www.randreview.org/online/
Gays in the Military
Eventually, New Facts Conquer Old Taboos

By Bernard D. Rostker, Susan D. Hosek, and Mary E. Vaiana

Bernard Rostker, a RAND senior fellow, was formerly U.S. undersecretary of defense for personnel and readiness. Susan Hosek is codirector of the RAND Center for Military Health Policy Research. Mary Vaiana is communications director for RAND Health.

Many of us at RAND were unpopular in the eyes of some U.S. military leaders when we issued our first report on gays in the military in 1993. Our conclusions, declaring that sexual orientation was “not germane” to military readiness and characterizing the issue as one of conduct rather than orientation, were at odds with what the Pentagon had expected. Defense officials shelved our report. President Clinton, lacking support from the Pentagon or from the U.S. Congress to end discrimination against gays in the military, adopted the alternative policy that came to be known as “Don’t Ask, Don’t Tell,” which precluded gay men and women from serving in the U.S. military if they revealed their sexuality.

But in the ensuing 17 years, our 1993 report became required reading for anyone interested in the topic. In March 2010, on request from the U.S. Senate Armed Services Committee, U.S. Secretary of Defense Robert Gates asked us to update the report to inform a Pentagon working group that had been established to review the issues associated with repealing Don’t Ask, Don’t Tell.

Between March 1 and October 1 of last year, more than 50 RAND researchers from a wide range of disciplines met with leaders of seven allied militaries; visited domestic law enforcement organizations, federal agencies, private corporations, and universities; held focus groups with service members; conducted a confidential Internet survey of gay and lesbian service members; tracked changes in public attitudes; and scoured the academic literature to update the conclusions of our 1993 report. The Pentagon working group members wanted timely information to use in their own deliberations, and they received our report as they started writing theirs.

The Pentagon released its report on November 30. Consistent with the information in our report, the Pentagon group recommended repeal of Don’t Ask, Don’t Tell and incorporated much of our material into its own report (in its 151 pages, the word “RAND” appears 109 times). Secretary Gates endorsed the Pentagon’s report and recommendations. On December 18, the U.S. Senate followed the U.S. House of Representatives in voting to repeal Don’t Ask, Don’t Tell. Four days later, President Obama signed the legislation into law. Final repeal now awaits certification by Obama, Gates, and Admiral Mike Mullen, chairman of the Joint Chiefs of Staff, that repeal will not harm military readiness, followed by a 60-day waiting period.
In one respect, the story of RAND’s long involvement is one of endurance, showing how a government contractor can do things that a government cannot always do for itself: gather objective information, feed it into high-level deliberations, and sustain a trusted relationship despite the delivery of unwanted evidence. In another respect, the story of RAND’s involvement is one of quickly gleaning new information and placing it into a useful context. The remainder of this essay focuses on that updated information. Here are some of the new facts we found.

**Gay Visibility, Prevalence, and Disclosure**

Since 1993, gay men and lesbians have become increasingly visible in American society. The proportion of the civilian population who say they know someone who is gay or lesbian has grown from 42 percent in 1992 to 77 percent in 2010, with younger people reporting higher numbers than older people. As CBS News emphasized in May 2010, “more than six in ten Americans say they have a close friend, work colleague, or relative who is gay or lesbian.” Some argue that increased visibility is the catalyst that has helped to shift public opinion in favor of additional protections against discrimination and harassment based on sexual orientation.

Public opinion has always been a core issue in the debate concerning Don’t Ask, Don’t Tell. In just the past 17 years, U.S. public opinion about gay men and lesbians has become substantially more positive, indicating greater tolerance, acceptance, and inclusion. Figure 1 shows that today, in contrast to 1993, more than half of Americans support the right of gay men and women to choose their lifestyle, and almost everyone agrees that gay people should have equal rights in job opportunities. Public opinion data also show an increase among those who favor allowing gay people to serve openly in the military. Most polling now shows a majority of Americans in support (see Figure 2).

In 1993, few studies had been conducted to estimate the prevalence of gay people in the general population or the military. Today, we know much more. The National Longitudinal Study of Adolescent Health even allows a direct comparison of the prevalence of gay individuals in the military with that in the civilian population. This nationally representative survey, which has followed 20,745 adolescents since high school graduation dating back to 1994 and has asked...
them about their sexual orientation and military service, allows us to estimate what fraction of military men and women identify themselves as gay compared with that of those who have no military service.

Figure 3 shows our best estimates of the fractions of men and women in the civilian population and in the military who self-identify as gay or bisexual, based on the survey data. The fraction of self-identified gay or bisexual men in the military is close to that in the civilian population in the same age group—2.2 percent of men in the military versus 3.2 percent in the general population. In contrast, self-identified lesbian or bisexual women serve in the military at disproportionately high rates—10.7 percent of women in the military versus 4.2 percent in the general population.

Applying these rates to the active-duty military population of 1.4 million serving in 2008 (nearly 1.2 million men and 200,000 women) suggests a military population of 26,000 men and 21,000 women who might self-identify as gay, lesbian, or bisexual. For the reserve component, the numbers would be 15,000 men and 16,000 women (among 840,000 total members in 2008).

There is a big difference between self-identification and sexual expression. The national survey data also provide distinct estimates of the fractions of young men and women who have ever had same-sex sexual experiences before, during, or after military service. Overall, the level of same-sex sexual experience among individuals currently or recently in the military (9.1 percent) does not differ statistically from that of their peers in the U.S. civilian population (10.4 percent). Nor does the percentage of current or recent military men with same-sex sexual experience (5.1 percent) differ significantly from the percentage of the general population of young men who report same-sex sexual experience (6.5 percent). However, as shown in Figure 4, current or recent military women report significantly more same-sex sexual experience (27.5 percent) than do young women in the civilian population (13.9 percent).

Multiple studies show that gay people are more likely to disclose their sexual orientation to individuals with whom they have a close relationship. In general, studies of the U.S. population suggest that about one-fourth of gay men, lesbians, and bisexuals keep their sexual orientation strictly secret; about one-fourth are completely open about their sexual orientation; and the other half fall somewhere in the middle, disclosing their sexual orientation to select individuals. The
results from one study comparing disclosure to friends and neighbors illustrate this point (see Figure 5).

With the likely repeal of Don’t Ask, Don’t Tell, gay men and lesbians who serve in the military will be permitted to disclose their sexual orientation to other service members. However, data from multiple studies and from our own survey of gay military personnel suggest that few will choose to disclose their orientation.

Current research on the general population also helps us understand the positive and negative consequences of disclosing sexual orientation. Disclosure may be associated with better job attitudes, higher-quality interpersonal relationships, and better mental health. Conversely, concealing information about oneself, including information about sexual identity, may lead to psychological problems, including preoccupation with concealing the information, anxiety, and social isolation. On the other hand, a few studies report that people who disclosed their sexual identity, or had it become known involuntarily, experienced negative reactions, such as verbal and physical victimization.

**Issues of Concern to the Military**
A number of issues from the 1993 debate have remained controversial. The 1981 U.S. military policy stating that “homosexuality is incompatible with military service” is based on the premise that a gay military member’s presence “adversely affects the ability of the Military Services to maintain discipline, good order, and morale.” Congress codified this unit cohesion–based argument in the Don’t Ask, Don’t Tell law of 1993. The 1981 policy also raises concerns about the military’s ability to “recruit and retain members of the armed force” if gay individuals are allowed to serve. And in 1993, the debate also highlighted health issues, specifically human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) and the safety of the blood supply.

But research since 1993 has continued to find that the performance of a group influences its cohesion more than cohesion influences its performance. Interpersonal liking is not essential to effective unit performance. What is important is shared commitment to the unit’s task-related goals. Personal trust in one’s comrades is distinct from personal liking, and professionals can develop this kind of trust rapidly in intense performance situations. Cohesion in combat stems not from preconceived, shared values and attitudes but rather from the shared dedication to the mission.
influence retention decisions than is the repeal of Don’t Ask, Don’t Tell. If the repeal does in fact result in lower retention, it could be offset by increases in reenlistment bonuses, military pay, and allowances, just as many of the negative effects of frequent, long, and hostile U.S. Army deployments in 2005 and 2006 were offset.

Meanwhile, rates of HIV infection in the military are unlikely to increase if currently serving gay men are able to disclose their sexual orientation—even if the number of gay military members increases—because of improved HIV screening policies and the small fraction of gay personnel. Advances in treatment since 1993 have also made HIV/AIDS a chronic condition with few health consequences during the early years of infection, when military service is likely. Depression, anxiety, suicide, binge drinking, and substance abuse are more common among gay individuals but are unlikely to substantially affect readiness, given the overall prevalence of these problems in the military and the small percentage of gay service members.

Estimates of how the repeal of Don’t Ask, Don’t Tell might affect recruitment are uncertain. Data from defense department surveys of youth and young adults in 2010 project either a slight decrease or a slight increase in enlistments if the law is repealed. We can be reasonably confident that any effect would be small. Other countries also report that the sizable declines in recruitment that had once been predicted in surveys prior to removing restrictions on the service of gay members did not in fact occur.

Regarding retention, 10 percent of active-duty U.S. personnel said they were not planning to leave when their obligation ended but would leave sooner in the event of repeal. However, fewer than 6 percent also said that repealing Don’t Ask, Don’t Tell was more important than any of their top three reasons for staying. We do not know how many of this latter group would actually leave sooner, but we can assume that they are the group most likely to leave because of repeal.

By service, the portions of this group identified as most likely to leave ranged from 2 percent among those in U.S. Coast Guard non-operational occupations to more than 12 percent among U.S. Marines in combat arms occupations. These estimates, however, are also quite uncertain. Survey evidence also supports the view, often expressed in the focus groups we conducted, that compensation-related factors are more likely to influence retention decisions than is the repeal of Don’t Ask, Don’t Tell. If the repeal does in fact result in lower retention, it could be offset by increases in reenlistment bonuses, military pay, and allowances, just as many of the negative effects of frequent, long, and hostile U.S. Army deployments in 2005 and 2006 were offset.

Focus Groups, Confidential Survey
Our focus groups with military personnel, as well as our confidential Internet survey of gay and lesbian personnel, indicate that many service members today know or believe they are serving with gay men and lesbians. The feedback also indicated how the attitudes of service members have changed since 1993, how their concerns vary regarding Don’t Ask, Don’t Tell and its pending repeal, and how they believe such a repeal should be managed.

Last year, we conducted 22 focus groups with military personnel at ten military installations across the United States, leading separate groups for men and women and for individual ranks. In total, we talked with about 200 service members from all five military branches.
Unlike focus group members in 1993, participants in 2010 displayed virtually no hostility toward gay people. Almost all participants said that they personally knew gay men and lesbians who were serving, despite the prohibition on revealing sexual orientation. For the most part, participants respected the service of the gay or lesbian service members they knew and did not believe those gay individuals should be separated from the service. Nonetheless, opinions about repealing Don’t Ask, Don’t Tell were extremely diverse and actively debated.

Potential problems with the new policy that were frequently mentioned included harassment of gay service members by heterosexuals, sexual harassment of heterosexuals by gay service members, increased administrative workload, and changes in military culture and community life. Participants worried that problems might occur if gay men were included in infantry units (though this concern was often expressed by those who were not actually members of ground combat units). In contrast, few problems were expected from allowing known lesbians to serve.

Focus group participants generally agreed that successful implementation of a new policy would require good leadership. This included giving clear and direct orders outlining unacceptable behavior for both gay and heterosexual personnel, consistency in enforcement throughout the chain of command, and zero tolerance for harassment. In contrast to 1993, there was widespread agreement that the military could rise to this challenge if ordered to do so.

For our confidential Internet survey of gay, lesbian, and bisexual personnel, we worked with nine organizations that either serve as personal and professional networks for gay service members and veterans or represent them. We asked the organizations to enlist the cooperation of individuals currently on active duty to complete the survey and then to ask others whom they knew to complete it as well. In all, 208 individuals who indicated that they were gay, lesbian, or bisexual completed the survey. A disproportionate share of these respondents were officers. A fifth of the sample was female, which was a higher fraction than in the population of all service members but likely a smaller fraction than in the population of gay service members.

When asked to identify personal costs that they attributed to the Don’t Ask, Don’t Tell policy, the vast majority of the 208 respondents said it had put gay personnel at risk for blackmail or manipulation and had an adverse effect on their personal and unit relationships. To a much lesser extent, they reported being teased or mocked. A sizable fraction—35 percent of respondents—attributed mental health problems to the policy. Seven percent reported having been threatened or injured by other members of the military because of their sexual orientation (see Figure 6).

More than half of the respondents said they would not stay in the military unless the policy was repealed. About two-thirds reported being much more likely to stay if the policy were repealed.

Regarding an issue often cited as important for retention decisions, almost all gay respondents (93 percent) agreed that “gays and lesbians in the military have dependents who are missing out on opportunities and support systems that other military families can use.”

About half of the gay respondents who now pretend to be heterosexual or who avoid talking about their personal lives said they would disclose their orientation selectively, “depending on circumstances and who is involved.” Eighty percent of those who disclose

The attitudes of service members have changed since 1993.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Percentage of Respondents</th>
</tr>
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<tbody>
<tr>
<td>Put at risk for blackmail and manipulation</td>
<td>91</td>
</tr>
<tr>
<td>Personal relationships suffered</td>
<td>86</td>
</tr>
<tr>
<td>Are experiencing strain in relationships with others in units</td>
<td>76</td>
</tr>
<tr>
<td>Are experiencing stress and anxiety in daily lives</td>
<td>72</td>
</tr>
<tr>
<td>Have experienced mental health problems</td>
<td>35</td>
</tr>
<tr>
<td>Have been teased or mocked</td>
<td>29</td>
</tr>
<tr>
<td>Have been threatened or injured by other service members</td>
<td>7</td>
</tr>
</tbody>
</table>

Figure 6—Gay Service Members Attribute Several Personal Problems to the “Don’t Ask, Don’t Tell” Policy

SOURCE: RAND survey of gay, lesbian, and bisexual military personnel.
selectively now expect to continue this behavior. As seen in Figure 7, the large majority said they would continue to be selective in revealing their sexual orientation (as gay men and lesbians are in civilian life).

Three-fourths of respondents said they would take a “wait and see” attitude before adjusting to a policy repeal. When asked what features of implementing a repeal would make them more comfortable about disclosing their sexual orientation, to the extent that they wished to do so, the strongest support was for clear leadership commitment, establishing clear conduct standards for everyone, and enforcing zero tolerance for harassment based on sexual orientation.

Agents of Change
We visited the militaries of Australia, Canada, Germany, Israel, Italy, the Netherlands, and the United Kingdom—all of which now have years of experience with gay personnel serving in their forces without any restrictions. These militaries have all recently engaged in combat operations, many alongside the U.S. military. None of these allied militaries reported that having openly gay service members had affected unit performance or the ability to meet recruitment and retention goals. No country provides special accommodations for privacy or special training on sexual orientation.

In several countries, officials volunteered that it was much harder to integrate women into the force than to allow gay people to serve without restriction. Some commanders told us that sexual harassment of women by men poses a far greater threat to unit performance than anything related to sexual orientation.

In the United States, we visited police and fire departments and federal agencies that have allowed gay people to serve openly. All reported that they had integrated openly gay people without serious problems, without negative effects on performance, and without making specific accommodations—by applying a strict policy of nondiscrimination.

Many of the most important lessons about implementing organizational change of this kind remain unchanged since 1993. Leaders at all levels of the organization, not just the top echelons, need to signal their support for the new policy. Communication of the change should convey the importance of behavioral compliance and of sanctions for noncompliance. Critical to such change in the military is the code of professional conduct that emphasizes treating all others with respect. Leaders should stress that it is behavior that must conform, not attitudes.

At root, the issue of letting openly gay people serve in the military has to do with how the change might affect military effectiveness. The officials, commanders, and service members we met in foreign militaries all reported that the policy change had not degraded unit performance or the ability to meet recruitment and retention goals. Quite the opposite, some commanders said the change had actually improved performance because gay personnel could now devote full attention to their jobs.

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Shifts in Responsibility

Global Trends Presage New Era in Home Health Care

By Soeren Mattke

Soeren Mattke is a RAND senior scientist who directs RAND Health’s efforts to address issues of importance to private-sector clients.

Home health care technologies, from simple diagnostic tools to advanced telem medicine solutions, have the potential to help sustain health care systems threatened by rising costs and personnel shortages. As the world’s elderly population surges and the treatment for many diseases improves, the number of people living with chronic conditions and disabilities will continue to grow. Home health care can empower patients to manage their own conditions to a greater extent and can shift care from high-cost institutional and professional settings to homes and the community.

Moving care toward the home, however, entails a major shift in the structure of health care. Such a shift can be accomplished only with the support of health care providers, insurance companies, and policymakers. Current obstacles include restrictive insurance policies, existing incentives for home care involving in-person visits, limited patient readiness because of insufficient health literacy, concerns about appropriate product design and support, and limited information about whether the technologies are effective and efficient.

To overcome those obstacles, policymakers will have to reconfigure payment and incentive systems, clarify the regulatory framework, and promote patient receptiveness to new models of care delivery. Manufacturers need to develop affordable products with intuitive designs, provide ongoing support for patients and families, integrate the new services with those of professional care providers, and provide evidence of the cost-effectiveness of home care products. Health care providers need to embrace a new role as partners in the care process, rather than paternalistic caregivers.

These findings come from a study of home health care needs and priorities in six countries: China, France, Germany, Singapore, the United Kingdom, and the United States. Support for the study came from Royal Philips Electronics, a global producer of home health care technology.

Tipping Points

Chronic diseases have replaced infections as the primary causes of death and disability in many societies. The shift is not confined to the developed world. In low- and middle-income countries, the share of the disease burden originating from noncommunicable diseases is estimated to rise from 44 percent in 2002 to 54 percent by 2030. The world’s most rapidly aging country today is Singapore (see the figure), and chronic diseases already cause 80 percent of all deaths in China. By 2014, the number of people in China with chronic conditions will outnumber the entire U.S. population.
These changes in demographics and disease patterns are expected to accelerate the growth of health care spending. In the United States, the elderly (age 65 and older) account for only 12 percent of the total population yet incur 34 percent of total health care spending. Since health care spending is already growing faster than gross domestic product in most countries, there is escalating anxiety about the financial sustainability of current care delivery systems.

Home health care innovations could make today a moment of opportunity. Promoting those tools and transforming the current provider-driven health care model into a patient-centric system might not only improve health status and lower cost but also enable patients with chronic conditions to enjoy active aging and fulfilling lives as integrated members of society.

Shifting to home health care solutions follows major cultural changes. Informal care by family members, particularly women, has traditionally been the main source of long-term care. But smaller families, higher labor-market participation among women, and greater mobility have left fewer intergenerational families able to provide informal care. This shift started in Western countries after World War II and is now affecting Asian countries, despite strong cultural norms that children are expected to take care of parents in their old age.

The attitudes of the elderly have also changed in that many prefer to live active and independent lives in their homes and communities, potentially supported by tools and technologies, for as long as possible.

Solutions to cope with those changes span a broad spectrum. They include mobility support tools (such as walkers), basic diagnostic and therapeutic tools (such as glucose meters), and telemedicine. In this article, I focus on home health care and self-management technologies, which can be categorized into three groups.

First-generation devices are nonconnected, typically single-purpose tools, such as glucose meters, sleep support devices, automatic external defibrillators, and ventilators. These devices do not require any data exchange. In general, they are stand-alone products, not integrated services. The market for them is very mature. The costs are largely covered by health insurance, and in countries where they are not (as in China), there is a substantial willingness to pay for the devices out of pocket (particularly in more affluent, educated urban areas).

Second-generation devices are connected without interactivity, sending one-way signals from patients to providers. These devices include alarm pendants and telemonitoring tools that transmit physiological indicators for remote monitoring. These tools are available on the market but not yet widely used and are usually not covered by insurance.

Third-generation devices provide interactivity and allow data and information to flow back and forth between patients and providers. These technologies can fundamentally transform medical care by empowering patients and informal caregivers to self-manage chronic conditions. Often used in telemedicine, these devices distinguish themselves further from telemonitoring in that they are not disease-specific but patient-centric. They are not yet routinely covered by health insurance.

Obstacles to New Technologies

Policymakers in the six countries we studied are very interested in home health care technologies and share the hope that these innovations can substitute for scarce professional care and reduce cost. But the policy interest has not yet led to fundamental policy changes that would help overcome various obstacles to widespread adoption.

Patients, particularly the current generation of elderly and care-dependent people, and their informal


**Home health care innovations could make today a moment of opportunity.**
Caregivers may lack the technological familiarity and health literacy needed to make use of the devices. The affordability of products that are not covered by insurance is also an issue because the discretionary income of the elderly and disabled is limited. Moreover, patients in many countries have access to affordable or subsidized domestic helpers, making the cost of home health care products comparatively high.

Some patients fear that using these products will stigmatize them as disabled or old and increase their isolation by prompting less human interaction and fewer visits from family members or care professionals. The connected technologies also spark concerns about data privacy and the misuse of sensitive health information.

Providers remain skeptical about whether the use of these new technologies would translate into better management of diseases and disability—and into better outcomes for patients—because there is limited evidence of the clinical effectiveness of the new technologies. Providers also worry that the connected devices might create a “parallel universe” in which patients receive advice and recommendations without the involvement of their usual source of care, further contributing to fragmentation and discontinuity of care. Providers therefore have a strong preference for tools that can be integrated into a patient’s routine care delivery.

Providers also have economic, professional, and personal concerns. They wonder about the potential threat to their business model if remote interactions replace office visits. They dread the mechanization of their jobs. And they share a deep reluctance, similar to that of patients, to replace human contact with electronic tools.

Two major obstacles inhibit insurers from covering the new devices. The first is incongruence with established payment systems, which were designed to cover care for acute, not chronic, illness. The payment systems have not evolved to cover chronic conditions requiring ongoing management, as opposed to episodic treatments that are linked to payable encounters (office visits, hospital admissions) or products (drugs, medical equipment). The second obstacle is the limited evidence of impact on health care cost.

Regulatory approval for home health care products requires only standard manufacturing data and functionality testing. But higher regulatory hurdles can arise for newer-generation products, such as connected devices, that fall under the jurisdictions of multiple regulators, such as medical device and telecommunication regulators. Extensive legal issues can also emerge if new services, such as telemedicine, are deemed medical services subject to malpractice liability.

**Overcoming the Obstacles**

Removing the obstacles to the adoption of new home health care tools will require concerted efforts from many stakeholders. Both the policy initiatives and the products themselves must be designed to yield the highest benefits from the individual as well as societal perspectives.

Policymakers, primarily health ministry officials, will have to drive the agenda for change. Key items on this agenda will be testing new payment methods, establishing regulatory standards for the new technologies, and promoting patient receptiveness to them. Many countries are testing new payment and delivery methods, from disease management programs in Germany to accountable care organizations in the United States. But given the mounting pressure on the health care systems in many countries, the visibility and intensity of these and similar efforts will have to be increased.

Policymakers can also promote faster adoption and innovation by clarifying and simplifying the regulatory environment, especially for third-generation devices. To assuage patient concerns about privacy and to allow proper sharing of sensitive health information, policymakers can introduce standards for data protection and interoperability. Governments can also educate citizens about the benefits of new technologies for improving self-care.

Manufacturers can support these efforts in two important ways. First and foremost, any new tools must be developed in accordance with patient needs, offering intuitive and simple designs while being affordable at the same time. Companies must also provide patients and their informal caregivers ongoing support and must integrate the new services and data with those of professional care providers. Second, companies will have to justify the value of their products with

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**Providers share a deep reluctance, similar to that of patients, to replace human contact with electronic tools.**

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**The payment systems have not evolved to cover chronic conditions requiring ongoing management.**
convincing evidence of their clinical effectiveness and cost-effectiveness compared with existing alternatives. A good example of such an assessment is the Whole System Demonstrator trial now being conducted in the United Kingdom, currently the largest randomized controlled trial of telehealth and telecare in the world.

Because patients rely heavily on their providers for medical advice, the providers’ knowledge about the range of existing products and their benefits is essential. But providers also need to assume the role of being partners with patients in the care process. Shifting more responsibility to patients can reduce cost and free up capacity in delivery systems.

The new home health care devices have theoretical appeal but challenge and disrupt current paradigms and structures. For major advances to be made, a broad set of stakeholders will have to work together to construct a new paradigm geared toward providing patient-centric care. Under such a paradigm, the incentive structures would encourage health care providers to allocate time to educate and to guide patients in the correct usage of home health care devices.

Stakeholders from a heterogeneous sample of countries share similar hopes and concerns with respect to the adoption of home health care technologies. There is broad-based agreement that fundamental changes are necessary to reap the potential benefits of these devices. At the same time, it is important to take into account national differences in health care delivery, along with the cultural and socioeconomic contexts. Different insurance arrangements, varying levels of health literacy and patient empowerment, differences in attitudes of patients and providers, and an uneven willingness to pay will have important implications for the types of devices that might be suitable in each context.

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Most Wanted
Law Enforcement Agencies Pursue Elusive, Qualified Recruits

By Jeremy M. Wilson and Laura Werber Castaneda

Jeremy Wilson, an adjunct RAND behavioral scientist, is also an associate professor and associate director for research at the Michigan State University School of Criminal Justice. Laura Werber Castaneda is a RAND management scientist.

In spite of persistently high unemployment rates, police departments across the United States face immediate staffing challenges. These challenges also complicate the attainment of long-term workforce planning goals. The ranks of qualified police recruits are diminishing, portending personnel shortages in the short term as well as potentially disruptive imbalances between junior and senior personnel for years to come.

Police chiefs today face a threefold challenge in recruiting and retaining officers: attrition resulting from budget crises and baby-boomer retirements, generational trends restricting the flow of applicants, and expanded duties requiring more officers with a greater breadth of skills. The challenge is finding affordable ways to attract and keep good officers.

In a survey of recent recruits, we found that law enforcement agencies could enhance recruitment by targeting nonfinancial incentives to specific groups: women, racial and ethnic minorities, older recruits, recruits from immigrant families, college graduates, recruits with military experience, and those with prior law enforcement experience. Yet at the same time, in another study we found that just three factors appear to have statistically significant, positive effects on police recruiting: a higher starting salary, larger city size, and, surprisingly, higher crime rates. Research on this topic is in its infancy, so ruling out any promising option at this time would be premature.

Although police agencies can do little to limit the demand for officers, we found that certain practices—from analyzing local demographics to offering flexible benefits to giving officers a voice in departmental decisions—might help retain the supply of officers and thus contribute toward building stable, long-term workforces. The remainder of this essay serves as a review of our ongoing investigation, which included surveys of both law enforcement recruits and agency leadership.

National Shortages
One measure of the challenge facing U.S. law-enforcement agencies is the 2010 federal appropriation of $1 billion to the Office of Community Oriented Policing Services (COPS) within the U.S. Department of Justice to help stabilize the ranks of police. A better measure is the response to that appropriation. The $1-billion allocation generated more than 7,000 applications from police departments requesting more than $8 billion to support nearly 40,000 sworn-officer positions. The COPS office has also asked RAND to compile information on promising practices for police recruitment and retention.

To portray the fluid forces at work with respect to the accelerating attrition, evaporating sources of recruitment, and expanding responsibilities of police, we use the metaphor of water in a bucket (see Figure 1). The size of the bucket represents the absolute need for police officers. The water level, which rises and falls...
with accession and attrition over time, frequently does not fill the bucket because of resource or other limitations in meeting the demand for officers. The space between the brim and the water level represents unmet demand. The authorized or allocated level of officers (the number of officers for which an agency is budgeted) usually falls between the brim and water level.

Three forces today are lowering the water level. First, officers are “leaking out” through attrition. A pending wave of baby-boom retirements is threatening to reduce the experience levels of police departments across America. Budget crises are compelling jurisdictions to consider cutting the numbers of officers. Military call-ups have been draining away officers for lengthy periods of time on nation-building and other military missions. And younger workers appear to be more likely than older ones to shift careers.

Second, young workers today appear to be less likely than their predecessors to flow from the “faucet” of supply. Growing levels of illicit drug use, obesity, and debt have shrunk the qualified applicant pool, just as the skill requirements for officers have expanded. While many, particularly college-educated applicants, can meet these requirements, they have other options. And the same budget crises that may lead to smaller workforces may also lead to reduced salaries and benefit packages that are less likely to attract qualified candidates.

Third, the bucket is expanding as police work broadens, creating demand for more “water.” The adoption of community policing, the increased emphasis on homeland security, and the widening global and technological scope of local police duties to encompass the occasionally militaristic roles of counterterrorism, information-sharing, and immigration enforcement have placed growing demands on the numbers and skills of officers. In sum, the water is flowing out faster than it is pouring in, and the bucket is getting bigger.

**Law Enforcement Recruitment**

To help agencies strengthen recruitment, we surveyed new police and sheriff recruits. Our survey drew 1,619 respondents—an 80-percent response rate—from 44 of America’s largest police and sheriffs’ departments (each with 800 or more sworn staff).

When asked to indicate what first had prompted them to consider working in their current agency, more than 60 percent of recruits cited friends or relatives in law enforcement, particularly those already working in the same agency (see Figure 2). The Internet was by far the most popular advertising outlet that had prompted respondents to contact their current employer, with 18 percent identifying it as a motivating force.

Survey recruits also indicated their primary reasons for entering law enforcement, placing the greatest emphasis on job security and helping the community. Older recruits, those age 26 or older, focused on job security more than younger recruits did. Latino recruits and those with prior law enforcement experience gave greater weight to the public service aspects of law enforcement. Compared with white recruits, black recruits were more attracted to the prestige of the profession.

On the negative side, recruits often cited the threat of death or injury and insufficient salary as drawbacks they considered when deciding whether to enter law enforcement. Women were more likely to cite fitness requirements and family obligations as barriers to joining. Asians tended to note that their friends and family members found other career options more appealing. And not surprisingly, college graduates were more likely than recruits with less education to note that inadequate pay was a factor in their decision.

About 80 percent of survey respondents said their parents had weighed in on their career choice. For most recruits, their siblings and friends had also offered opinions. In general, family and friends offered neutral to supportive views, although mothers tended to be less...
supportive than fathers. In addition, half of the recruits received input from law enforcement professionals, and those professionals voiced the most support.

Other factors that played prominent roles in convincing recruits to work at a specific agency included job benefits (specifically, health insurance and retirement plans), agency reputation, and assignment variety. Latino and older recruits viewed retirement plans as more important than did white and younger recruits. Housing affordability also emerged as a consideration for black and Latino recruits and for those from immigrant families.

In a parallel effort, we found that most agencies targeted specific groups for recruitment, including racial or ethnic minorities, women, college graduates, military veterans, candidates with prior police experience, and foreign-language speakers. Popular recruiting methods were career fairs, the Internet, newspapers, community organizations, college outreach, and walk-in offices. Nearly every agency reported offering some recruitment incentive, such as a uniform allowance, training salary, reimbursement for college courses, pay rate by assignment, salary increase for a college degree, or some other form of supplemental compensation.

These findings are consistent with many of the views expressed by surveyed recruits. Indeed, the incentives that survey respondents overall felt might improve recruiting the most at their agencies were financial ones: a better pension, higher starting salary, support for the purchase of uniforms and other supplies, and a signing bonus. However, other strategies tended to be important to particular groups. Females, Latinos, younger recruits, and those with prior law enforcement experience viewed free training and exercise programs to help meet physical standards as more attractive than did other recruits. College graduates, recruits with military experience, and those with prior law enforcement experience rated choice in job duties or assignments more highly.

But in a separate study of police agencies with at least 300 officers, we found that only three variables made a statistically significant positive difference in police recruiting: higher starting salary, larger city size, and higher crime rates. The appeal of higher starting salary is obvious. We suspect that larger city size captures a scale effect—bigger cities typically have a greater pool of potential applicants—and may also be a proxy for the variety of police work available. Areas with higher crime rates might appeal to candidates with a “taste” for police work by offering more adventurous or nonroutine work opportunities or more chances to make a difference in a community. None of the supplemental compensation incentives had a statistically significant effect, and the advertising strategies did not seem to make a difference.

These findings suggest six recruitment strategies for law enforcement agencies.

First, emphasize the positive aspects of law enforcement and address negative perceptions, especially those based on inaccurate information, such as an exaggerated fear of death. The reality is that police officers have had lower fatality rates in recent years than farmers, truck and taxi drivers, construction workers, and bartenders. While policing is more dangerous than the average job, the safety record of modern policing deserves greater recognition.

Second, salary is important, but do not assume that it is an insurmountable obstacle. Regardless of their ability to increase salary, agencies should emphasize the nonfinancial benefits of law enforcement. Many recruits said they were drawn to the field for nonpecuniary reasons. Moreover, those surveyed did not seem dissatisfied with the salary and benefits offered by the agency with which they accepted employment.

Third, fully engage current officers and staff in recruiting. Friends and family working at an agency were...
responsible for prompting more than 40 percent of the surveyed recruits to consider that agency, with another 20 percent referred by friends and family at another agency. Half of the recruits sought the advice of law enforcement members when contemplating their career options. Accordingly, those expressly tasked with recruiting should not be the only agency employees working to attract promising candidates. A department’s current officers and civilian staff can be its most effective recruiters.

Fourth, expand the agency’s Internet presence. Eighty percent of surveyed recruits reported using the Internet at least daily. Relatively low-cost or even free vehicles for increasing an agency’s Internet presence are available, including job sites such as Monster.com and social networking sites such as Facebook.

Fifth, appeal to what different types of recruits view as advantages of working in law enforcement. For example, profiling female leaders in the department can signal that women have opportunities for advancement, which is a key reason women cite for pursuing this career.

Sixth, continue learning from new recruits. Such findings can serve as benchmarks for agencies to measure their progress over time.

**Law Enforcement Retention**

There is little that police agencies can do to limit the demand for officers, but the research literature is rich with promising ideas for retaining the supply. Agencies can gain a better understanding of how to retain the supply through demographic and market analysis and through surveys of and interviews with officers. Four California departments are developing retention plans based on demographic and market trends, including projections of the retirement-eligible portions of their workforces and likely attrition rates.

Our review of the literature suggests that agencies can reduce turnover by offering officers realistic career expectations. The Idaho State Police attempts to demystify police work by providing, on its recruitment website, examples of daily duties expected of its troopers. In a similar way, candid videos describing a typical career path from the academy to the beat to detective work to leadership positions might be useful for retaining veteran officers. Police departments could also require new hires to sign contracts, but their use has decreased in part because of the belief that written contracts cast doubts on informal, trusting relationships.

Agencies can retain candidates directly by enhancing compensation and other benefits. Higher or well-timed salary adjustments, more-frequent promotions, visible career ladders, educational incentives, housing allowances, take-home cars, on-site child care, health-club memberships, and job flexibility are some of the benefits that can help improve retention. Benefit flexibility or a cafeteria-style approach is an option that many companies have tried, offering employees options while keeping costs down.

Agencies can also strengthen retention through greater employee engagement in decisionmaking and in evaluation and feedback mechanisms. In California, the Santa Cruz Consolidated Emergency Communication Center experiences a 1-percent turnover rate in an industry with an average rate of 17 percent. Its success is attributed to a willingness to try different approaches, listen to employees, engage them in planning and decisionmaking, and recognize good performance. When employees believe that they have a voice that can influence organizational decisions, it deepens their commitment to the organization and encourages ongoing feedback, creating a continuous, positive dialogue.

A major reason for turnover is the perceived quality of supervision. A study of resignations and transfers in ten United Kingdom police forces found that, when asked about ways to improve the agencies, respondents emphasized open and routine communication about departmental goals, fair and transparent practices, and reduced paperwork and bureaucracy. Improving organizational effectiveness in these ways can enhance an agency’s image not only with employees but also with the community.

Few of the promising practices identified in the literature, though, have been empirically tested. Little aside from anecdotes is known about many of them. Police departments can experiment with these and other strategies but should incorporate mechanisms to assess their effectiveness.

**Workforce Planning**

Recruitment and retention are only tools for accomplishing a larger, more important, and less discussed goal: building and maintaining a personnel profile, by experience and rank, that satisfies agency needs and officer career aspirations. To help U.S. police agencies meet this goal, we surveyed them on how their recruitment and retention practices have affected their workforce personnel profiles.

Most of the 107 agencies (73-percent response rate) that responded to our survey had between 300 and
1,000 sworn officers; a handful had more than 4,000. As expected, the greatest difficulty the agencies reported in filling vacancies was a lack of qualified applicants. Nearly four in five agencies cited this as causing “some” or “much” difficulty (see Figure 3). Typical agency qualifications included high school graduation, psychological testing, a medical test, a driver’s license, U.S. citizenship, vision testing, and physical agility testing.

The agency survey helped us identify common career management issues. For police agencies, there is an optimal year-of-service profile that reflects the desired distribution of experience. (To maximize efficiency, there are preferred proportions of junior and senior officers.) As it turns out, the optimum profile is close to the average agency profile—with 48 percent of officers in their first decade of service, 36 percent in their second, and 17 percent in their third. This average profile, however, hides substantial variation across the agencies.

The agencies that do not resemble the typical profile are likely to move between “boom” and “bust” cycles as cohorts of differing size age. Agencies with relatively higher proportions of junior personnel are likely to face a dearth of officers for training and supervisory positions. The younger personnel within such agencies will also enjoy fewer prospects for promotion and may encounter corresponding career frustration. Agencies with higher proportions of senior personnel than average will face their own problems. The costs of providing police services will be higher for these agencies, and as senior officers retire, the younger cohorts will not suffice to fill the upper ranks.

Once such oscillations begin, they are difficult to stop. Agencies facing such oscillations will need to somehow change the normal attrition patterns or else fill the void in experience by hiring veterans from other departments.

Another common dilemma is that police agencies face numerous problems in collecting and maintaining personnel data. Not all the data are electronically available. Data that are electronically available are often not in a single database or in databases that can be easily aggregated. Personnel with access to the data are often outside the agencies and have other duties to fulfill. Agency personnel have limited time to address the problems of limited data, and there are scarce financial resources for technical innovations.

Several local and national initiatives could help overcome these problems. Chief among these initiatives would be federal leadership support for ongoing national collection of police staffing data as part of a national police personnel data center. Support for local and national analysis of the data would also be necessary to derive lessons for law enforcement agencies. Such analysis could focus on assessing whether, when, how, and under what circumstances recruitment and retention strategies work, the career and personal needs of officers are met, and the administrative goals of management are accomplished.

### Related Reading


The RAND Police Recruitment and Retention Clearinghouse: cops.rand.org/cops

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Ongoing Treatment

RAND Can Help Rein In U.S. Health Care Costs

By James A. Thomson

James A. Thomson is president and chief executive officer of the RAND Corporation.

The bipartisan National Commission on Fiscal Responsibility and Reform pulled no punches in its final report in December 2010: “Federal health care spending represents our single largest fiscal challenge over the long run. As the baby boomers retire and overall health care costs continue to grow faster than the economy, federal health spending threatens to balloon.”

The commission—created by President Obama to address America’s fiscal challenges—predicted that, by 2035, federal outlays for Medicare, Medicaid, the Children’s Health Insurance Program, and the health insurance exchange subsidies will account for 10 percent of U.S. gross domestic product (GDP), up from 6 percent in 2010. States and the private sector pay dearly as well. If historical rates of growth continue, U.S. spending on health care from all sectors—federal, state, and private—will surpass 20 percent of GDP within five years and eat up the entire GDP by 2082. Since the latter cannot happen, something else dramatic will have to happen between now and then, by design or default.

When it comes to health care expenses per capita, Americans shoulder more out-of-pocket costs, pay more for private insurance, and spend more tax money than do citizens of Canada, France, Germany, Great Britain, or Sweden. America’s annual health bill tops $2.5 trillion. However, even with that spending, 50 million Americans lack health insurance, and U.S. life expectancies are in the bottom quarter of the 34 countries that make up the Organisation for Economic Co-operation and Development.

The Patient Protection and Affordable Care Act that Obama signed into law last spring was an earnest, albeit controversial, step to address these issues. While the act’s ultimate disposition is murky pending challenges in federal courts, what remains clear is that slowing or reversing rising health care costs—while also making care more effective—will remain America’s preeminent public policy challenge for decades.

RAND is ready, willing, and able to play a leading role in this effort. For more than 60 years, we have helped policymakers around the world identify cost savings. Our results for the U.S. Department of Defense are some of the best known; RAND studies have allowed the Pentagon to save or avoid billions of dollars in spending.

RAND Health draws from a similar legacy, one that its new vice president and director, Arthur Kellermann, intends to build upon. RAND teams have examined why health care costs are rising, what value they provide, and how the health care system can function more efficiently. These teams have identified potential savings of $77 billion a year from widely adopting health information technology; of $18 billion a year in avoided health care costs from reducing Americans’ average intake of salt; and of another $1 billion a year from cutting drug copayments for people taking cholesterol-lowering medication.

But, given the size of U.S. health spending, considerably more is needed. Almost all of RAND Health’s work—from health promotion and disease prevention to studies of health economics, finance, and organization—is directed at reducing health care costs. The benefits of lowering these costs go beyond reducing the federal budget deficit, as important as that is. Lower health care costs will benefit state governments, the competitiveness of U.S. businesses in the global marketplace, and the financial security of 300 million Americans. Finally, lessons learned in the United States will be valuable globally, because rising health care costs are a growing concern everywhere.

The aim of RAND’s efforts is to make the U.S. health care system more cost-effective. This is an area in which RAND’s expertise runs deep and on which we intend to continue focusing sustained analytic attention. Health care is America’s biggest economic problem, and it deserves our full prescriptive powers.
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—Michael Tennenbaum, an investment manager based in Los Angeles, is a member of the RAND Center for Asia Pacific Policy Advisory Board. He and his wife, Suzanne, made a gift to establish the Claire and Jacob Stockfisch Library Collection at RAND in honor of Suzanne’s parents.

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