

**Health Spending in the American Recovery and Reinvestment Act of 2009**

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## **Acronyms**

AHRQ Agency for Healthcare Research and Quality  
AMA American Medical Association  
ARRA American Recovery and Reinvestment Act  
CER Comparative Effectiveness Research  
CMS Centers for Medicare and Medicaid Services  
COBRA Consolidated Omnibus Budget Reconciliation Act  
DSH Disproportionate Shared Hospitals  
HER Electronic Health Records  
FDA Food and Drug Administration  
FY Fiscal Year  
FMAP Federal Medical Assistance Percentages  
HHS Health and Human Services  
HIPAA Health Insurance Portability and Accountability Act  
HIT Health Information Technology  
HITECH Health Information Technology for Economic and Clinical Health  
IOM Institute of Medicine  
JCAHO The Joint Commission on the Accreditation of Healthcare Organizations  
NEJM New England Journal of Medicine  
NHSC National Health Service Corps  
NICE National Institutes for Health and Clinical Excellence  
NIH National Institute of Health  
ONCHIT Office of the National Coordinator for Health Information Technology  
PhRMA Pharmaceutical Research and Manufacturers of America  
SCHIP State Children's Health Insurance Program

The American Recovery and Reinvestment Act (ARRA) was signed into law on February 17, 2009. Health spending comprised twenty percent of the \$787 billion legislation (Figure 1, Figure 2, Appendix 1). The large percent of funding dedicated to health sparked debate in both the Senate and the House. Supporters of the bill, largely Democrats, argued that health spending fit well within the ARRA's goals to "create jobs, support the states, and invest in our country's future."<sup>1</sup> Furthermore, they asserted that temporary expansions of health insurance programs were necessary to protect the vulnerable, increased health funding to the states was necessary to help decrease budget shortfalls, and investments in increasing the future efficiency of the health care system were necessary to protect the economy against the rapidly increasing cost of health care.<sup>2</sup>

Congressional Republicans, and other opponents of the ARRA legislation, disagreed that large health spending was needed for economic recovery and expressed the belief that Democrats were using the economic crisis to promote the liberal agenda.<sup>3,4</sup> Opponents cite that health sector employment has actually increased since the recession and, thus, investments in the industry will do little to address job loss.<sup>4</sup> Also, the New York Times indicated that some Republicans believe the stimulus is being used to "rewrite the social contract with the poor" and that health provisions, such as Medicaid expansions, are a "back door to universal health coverage."<sup>3</sup>

Regardless of congressional intent, approximately \$156 billion have been appropriated to health—a large portion of the funding will be spent over the next few years. The influx of funding to existing programs and the investment in relatively new initiatives may change the health system in the United States. This paper discusses the extent to which big ticket items and new investments will reshape health care.

The authors categorized all health spending as recovery (79.3%), reinvestment (15.6%),

and undetermined (5.1%) and the paper is organized by these categories (Figure 2). Spending categorized as recovery (1) expands or continues current programs or (2) invests in health related infrastructure. The ARRA titles addressing COBRA and Medicaid are classified as recovery. Spending categorized as reinvestment invests in a relatively new health initiative and includes health information technology and comparative effectiveness research. Funding to the NIH, for grants other than comparative effectiveness research and health information technology, are classified as undetermined as they have aspects of both recovery and reinvestment in their funding. For each of these major health related investments, the provisions in the bill and the implication of the spending on the health system are described. Based on this analysis, the paper concludes by answering the question: Does the United States have a different health system post-ARRA?

### **Investments in COBRA and Medicaid: The road to recovery**

*COBRA subsidies.* COBRA allows individuals or families who lose health insurance coverage due to job loss or reduction in hours, to buy into the group insurance plan to protect them from higher premiums in the individual market.<sup>5</sup> COBRA premiums, however, remain high. The average cost of COBRA coverage for a family is \$13,000 a year—a significant barrier for unemployed individuals.<sup>5</sup> The ARRA allows a family to switch to a less expensive plan without waiting for an open enrollment period, benefiting employees who opted for more comprehensive health insurance while employed. The ARRA also provides a federal subsidy for 65% of the premium cost for individuals who lose their jobs between September 1, 2008 and December 31, 2009.<sup>5</sup> The subsidy is available for up to 9 months. Individuals working for companies with less than 20 employees are not eligible to receive the subsidy.<sup>6</sup> According to the Kaiser Foundation, subsidies are projected to cost the Federal government 24.7 billion dollars.<sup>6</sup>

Some controversy surrounds the COBRA provisions. Several employers have expressed concern that administrative costs will increase as a result of processing premium payments from multiple sources.<sup>5</sup> Also, some individuals will be unable to afford their percentage of the premium and others, such as those working in small business, do not qualify. In response, some states are covering an additional percentage of the COBRA premium. Massachusetts, for example, is covering the full remaining 35%.<sup>5</sup> The ARRA provides some additional protection against coverage gaps by temporarily increasing federal Medicaid funding, described below.

*Temporary Medicaid expansions.* ARRA Medicaid provisions are temporary and are appropriated for the FY 2009 and FY 2010. ARRA temporarily expands coverage under Medicaid or funding for Medicaid in the following ways:

1. increase in FMAP by 6.2% for all states and more for states with high unemployment rates at a projected cost of 87 billion;
2. increase in Medicaid payments to hospitals that treat large numbers of uninsured or underinsured patients, a provision that would cost \$460 million;
3. increase Medicaid funding for DSH by 2.5% at a projected cost of 268 million;
4. accelerate Medicaid reimbursements to nursing homes and hospitals, a provision that would cost \$680 million;
5. extend Medicaid coverage for individuals transition from welfare to work by \$1.3 billion;
6. extend assistance for low-income Medicare beneficiaries to cover the cost of Part B premiums by \$550 million;
7. eliminate out-of-pocket costs for American Indians and Alaska Natives enrolled in Medicaid at a cost of \$134 million; and

8. extend or add moratoria on certain Medicaid regulations, such as allowing states to increase eligibility to 200% of the poverty level, at a cost of \$105 million.<sup>6,7</sup>

*Impact of COBRA and Medicaid.* The Kaiser Family Foundation describe these provisions as “a valuable first step toward helping people maintain coverage.”<sup>6</sup> To some groups, however, these provisions are seen as incremental steps toward universal coverage. Opponents of ARRA expressed concern that temporary expansions would lead to more comprehensive reform. Their concern is that states will be unable to rollback expansions at the end of the funding period because doing so would be viewed “as kicking people off the program” and, as a result, would lead to permanent increases in coverage.<sup>6</sup>

As written, however, these provisions expire after two years.<sup>7</sup> The COBRA and Medicaid titles are meant to help individuals and states recover from the economic crisis by providing temporary relief through existing programs. The bill does not fundamentally change those programs and, thus, the long term effect on the health system is likely to be limited. While these programs make up the bulk of the health spending in the ARRA, other aspects of the bill may be more influential for the health care system in the future.

### **HIT and CER: Reinvestments for a more efficient health care system.**

*HIT.* The ARRA appropriates over \$21 billion to carry out Provision A, Title 13 and Provision B, Title 4.<sup>7</sup> These portions of the act create a framework for expanding the role of Health Information Technology (HIT) in America's health care system. Together these titles are dubbed the, “Health Information Technology for Economic and Clinical Health (HITECH) Act.”<sup>7</sup> In general, HITECH establishes guidelines for creating a national HIT system, creates incentives for Medicaid and Medicare to implement HIT, and expands portions of HIPAA to insure security and patient privacy.

The first portion of Title 13 expands the roles and responsibilities of the ONCHIT. In general, ONCHIT is charged with creating a national HIT system. The legislation allows ONCHIT to charge a fee for the service, provided it takes measures to insure that the system is accessible to smaller providers. Subtitle A of Title 13 lays out guidelines for achieving that goal. These include:

- Establishing electronic health record for every person in the US by 2014;
- Developing strategies to “enhance the use of health information technology in improving the quality of health care, reducing medical errors, reducing health disparities, improving public health, increasing prevention and coordination with community resources, and improving the continuity of care among health care settings;”
- Identifying measurable outcome goals, conducting evaluations and reporting on lessons learned, and conduct oversight of the system; and
- Establishing an HIT Policy Committee to report recommendations to ONCHIT on appropriate uses of the national system, including research on biosurveillance, public health, and drug safety.<sup>7</sup>

Subtitle B is concerned with testing the system and development of new technologies.<sup>7</sup> The National Institute of Standards and Technology is charged with overseeing testing of the national system. This subtitle also sets criteria for awarding grants for research into better privacy safeguards, technology to meet the needs of diverse population, and telemedicine. Other areas of research include:

- Improvement of existing HIT through the development of voice recognition software;
- Development of systems to improve communications and interconnectivity between hospitals;

- HIT security; and
- Use of HIT to reduce medical errors.<sup>7</sup>

Subtitle C allows for the use of funds to create incentives for providers to implement HIT systems such as Electronic Health Records (EHR), and to provide technical assistance and information to providers for the implementation of such systems. ONCHIT is required to set up regional offices to facilitate these processes. The office is also granted the authority to provide loans and matching funds to both state and private entities. HIT investments from private organizations can be matched 5:1 beginning in 2010. Investments by states will be matched through 2013 in the following ratios: 10:1 in 2011, 7:1 in 2012, 3:1 in 2013.<sup>7</sup>

Security and privacy concerns are addressed in Subtitle D. In general, this subtitle provides guidelines for expanding enforcement and increasing penalties for HIPAA violations. Also included are requirements notifying individuals, media outlets, and ONCHIT if security is breached.<sup>8</sup>

Title 4 of Provision B focuses on the creation of additional incentives to promote HIT through Medicaid and Medicare.<sup>7,8</sup> Subtitle A deals with Medicare incentives. It provides for incentive payments to “eligible professionals”, a category which includes a variety of health workers, at hospitals and clinics where HIT has been implemented. One hundred million dollars will be appropriated to CMS each year until 2015, and an additional \$45 million will be appropriated in 2016 in order to carry out the provisions.<sup>7,8</sup> Starting in 2011, Medicare providers will be eligible for these incentive payments for up to six years. The payment starts at \$18,000 in 2011, and drop down to \$2,000 by 2013. Providers that don't implement HIT or EHR until after 2014 will not be eligible for these incentives.<sup>7,8</sup>

Subtitle A also allots funds to hospitals that implement HIT/EHR. These funds will be

granted to hospitals according to the following scheme:

- \$2,000,000 base grant;
- \$0 for the first through 1,149th discharge;
- \$200 for the 1,150th through the 23,000th discharge; and
- 0\$ for any discharges after the 23,000<sup>th</sup>.<sup>8</sup>

These incentives will give way to fines for providers who do not implement HIT.<sup>7,8</sup>

Subtitle B deals with Medicaid incentives.<sup>7,8</sup> It allows for Medicaid providers to receive up to 100% of the amount of their Medicaid payments for implementing HIT systems. Subtitle C covers miscellaneous items, such as payments to programs such as Hospice, SCHIP, and long-term care providers.<sup>7,8</sup>

*Impact of HIT.* Efforts to promote HIT fall under “reinvestment.” Unlike most of the “recovery” components of ARRA, the HITECH portions are not required to report on the number of jobs created, and most of the provisions don't take effect until 2011. While HIT doesn't promise to be a short-term solution to economic problems, the administration hopes that the long-term returns on investment will be large.

The widespread adoption of HIT in US health care dovetails with the broader health care reform goals on which President Obama campaigned. According to the health plan Obama presented during the presidential campaign, administrative costs account for around one quarter of US health care spending.<sup>9</sup> The same document cites a RAND study that HIT stands to save \$77 billion a year in health spending, and states that Obama plans to invest \$10 billion a year over five years to promote HIT. In a sense, the HITECH portions of the ARRA are delivering on that campaign promise. That level of savings, however, may not be achieved for some time. The Congressional Budget Office reported that HITECH is likely to account for \$32.7 billion in

health spending over the next 10 years, while only saving Medicare and Medicaid \$12.5 billion over the same period.<sup>8,10</sup> However, it also estimates that the incentives will lead to HIT adoption rates as high as 70% for hospitals.<sup>8</sup>

Other countries which have moved to national HIT and EHR systems have reduced administrative costs to as low as 2% of health spending,<sup>11</sup> so it is not unreasonable to anticipate greater levels of savings in the long-run. A national HIT system would also generate data on a range of important issues, including access, medical errors, effectiveness, and small area variation. Better understanding of these issues could potentially lead to more effective cost-reducing strategies.

One concern over the impact of HITECH is the effect it will have on HIPAA. Whitehouse.gov states that a priority of the president is to “Strengthen privacy protections for the digital age and harness the power of technology to hold government and business accountable for violations of personal privacy.”<sup>12</sup> In that spirit, this legislation contains mandatory penalties and notification requirements for breaches in HIT security.

The additions to the HIPAA privacy regulations add another layer to an already complicated set of rules. One advisor at the American Association of Family Practitioners stated that, while the ARRA doesn't provide any money to help providers cope with additional privacy demands, it is likely to, “increase the uncertainty, complexity, cost and risk for anyone or any organization who collects, stores, manages or transmits personal health information.”<sup>13</sup> In addition, the increased number of people who will be working with medical records under a national HIT system mean that HIPAA regulations will apply to a significantly larger number of workers.<sup>13</sup> This could lead to unforeseen costs and consequences, in the form of litigation, additional HIPAA training, and so on.

In addition to these appropriations, a portion of the NIH “Challenge Grants,” are also focusing on specific HIT-related research.<sup>14</sup> These areas of research include ethical issues associated with HIT, and using data collected from HIT systems to conduct further research on quality and effectiveness. These challenges grants could funnel billions of additional dollars into HIT-based research projects. Eventually, the use of nationally representative HIT-generated data in research could impact the US health system in any number of ways.

### **Comparative Effectiveness Research.**

The ARRA designates a great deal of spending for research grants within various departments of HHS. One specified requirement of interest in these appropriations is funds specified for comparative effectiveness research (CER). CER is the study of different treatment regimens to compare the clinical and fiscal benefits of each. It is highlighted under Title VIII in the act as the responsibility of three departments.<sup>7</sup> The Agency for Health Research and Quality is appropriated \$700 million for this purpose with the provision that \$400 million be transferred to the NIH for fulfillment of specific challenge grants.<sup>7</sup> This amount is more than double what the budget for CER had been in AHRQ prior to the bills passing.<sup>10</sup> In addition, \$400 million is allocated to the director of Health and Human Services for further CER.<sup>7</sup>

The appropriations originated in the House committee, remained in the Senate version and were unchanged in the final Act suggesting strong political support.<sup>15</sup> AHRQ is tasked with using the funds to administer the CER requirements of the Public Health Services Act, the Social Security Act and the Medicare Modernization Act.<sup>7</sup> The funds to the Secretary of HHS are for the purposes of funding comparative research and establishing clinical data bases and registries to make the research more available to providers.<sup>7</sup>

The appropriations to AHRQ are restricted in their discretion in hiring additional FTE’s

to 1% of the total amount.<sup>7</sup> This limits AHRQ budget additions to FTE expansion to \$3 million and NIH to \$4 million.

Section 804 establishes the Federal Coordinating Council for Comparative Effectiveness Research and gives it the responsibility of coordinating all CER activities throughout the separate agencies.<sup>7</sup> The stated purpose of the Council is to reduce “duplicative efforts and encourag[e] coordinated and complementary use of resources”.<sup>7</sup> In addition, the Council has advisory responsibility to the President and Congress regarding infrastructure strategies and organizational expenditures.<sup>7</sup>

The Council is made of fifteen members and is chaired by the Secretary of the HHS. The membership must include at least one officer from AHRQ, CMS, NIH, ONCHIT, FDA, the Veterans Health Administration and the Military Health Department each and requires at least half of the members be physicians or have a clinical background.<sup>7</sup>

Specifically noted in the language are limitations on the abilities of the Council to affect reimbursement. The Act notes “Nothing in this section shall be construed to permit the Council to mandate coverage, reimbursement or other policies for any public or private payer”<sup>7</sup>; thus detailing the intent to have the Council serve as a fact finding board rather than a regulatory agency.

The NIH lists potential challenge grants for CER under sixty-nine topic headings.<sup>14</sup> Some common themes within the categories are aging related illness, cancer treatments, substance abuse, diabetes and hypertension, diagnostic modalities and many others. In addition to the specifically earmarked appropriations, CER is also eligible for grants from the NIH common fund or ARRA appropriations that are unspecified in the legislation.

Within the appropriations to the office of the Secretary of HHS is the requirement of a

study by the IOM with a budget of up to \$1.5 million on recommendations for CER.<sup>7</sup> In March, the IOM sent out surveys to provider organizations requesting input on treatment procedures that warranted investigation. The suggestions were to be assessed based on the criteria of disease burden, increasing prevalence, morbidity and mortality, variability in care, cost, information gap, funding gap, public interest, controversy, disproportionate impact on subpopulation, potential to act on the information once generated and utility of the answer for decision making.<sup>16</sup> The report is due to Congress by June 30<sup>th</sup>, 2009.

*Impact of CER.* While the appropriations to CER are small relative to the amount specified to health and even smaller in the context of the entire bill, this area of the bill has potentially vast implications for the delivery of health care in the U.S.

ARRA opponents have cited similarities between the Federal Coordinating Council for Comparative Effectiveness Research and Great Britain's National Institutes for Health and Clinical Excellence (NICE). The latter functions in the health system of the U.K. to determine which procedures will receive reimbursement under the government's plan and is a prime figure in the claims of medical rationing in that system.

The CER provisions of the ARRA have drawn sharp criticism from providers and the lobbies that represent them. While it supports cost effectiveness considerations by physicians, the AMA emphasizes that cost is "subordinate to the considerations of safety and clinical effectiveness" and "must not be used by payers to preclude or limit the availability of a safe and effective technology that is medically indicated."<sup>17</sup>

In their reaction to the passage of the bill, PhRMA stated that "such research must focus on medical outcomes, rather than cost-effective analysis that has a long track record of being used to deny patients need care".<sup>18</sup> PhRMA's CEO Billy Tauzin adds "used incorrectly, it allows

government payers to literally ban and keep medicines from patients who need them”.<sup>19</sup>

Betsey McCaughey, a fellow from the Hudson Institute, expresses what others may fear by saying the ARRA “treats health care the way European governments do; as a cost problem instead of a growth industry”. She adds “this stimulus is dangerous to your health and the economy”.<sup>19</sup>

Concerns such as these led to the specification in the Act that the Council does not serve in a regulatory manner and cannot determine what services will and will not be covered. Despite the restriction, the concern remains that this is an opening step towards a paternalistic, government-run health care system where cost is of significantly more importance than it is currently.

Additionally, the focus on CER appears to reflect concern over a stark variability in care throughout the country. Uncertainty regarding the most appropriate course of treatment in a clinical setting results in separate areas of the nation providing substantially different treatment protocols for similar conditions. With concern shifting towards cost, the finding that areas that provide a much more expensive brand of care do not necessarily generate improved outcomes focuses containment measures on determining the most effective type of care.

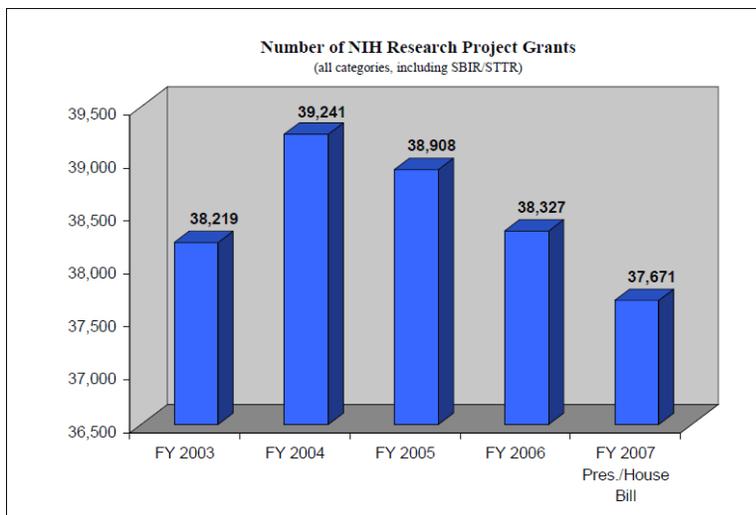
In addition, a push towards quality and patient safety is well under way in many provider organizations. Regulatory agencies, such as CMS, require metric monitoring and reporting in order to assure certain quality levels of care. Thus far, these metrics have been evidence based standards of care such as administering Aspirin to a myocardial infarction patient upon admittance and discharge.

In order to progress the quality movement, further study is needed to determine measurable quality metrics to monitor care. CER can determine what treatment decisions are

important in order to better inform physician decisions and reduce small area variation and allows regulatory agencies the necessary research to determine if providers are providing the most optimal level of care.

### **Other grants to the NIH: Recovery of Reinvestment?**

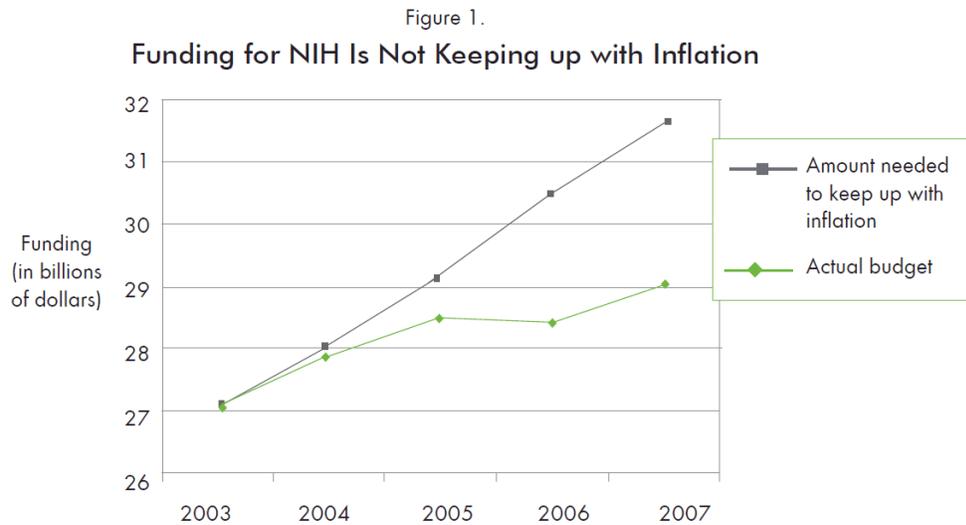
The ARRA provides substantial funding to the NIH after years of stagnant appropriations under the Bush Administration<sup>20</sup> (see charts) and declining fully-funded research projects. The majority will go towards research in engineering, and the clinical, biomedical, and social sciences in 3,000 institutions around the country. As per its requirement, the NIH has begun preliminary planning for how the \$8.2 billion allocated by the ARRA will be dispersed amongst its strategic objectives. The Institutes, Centers and Common Fund (CF), which is the trans-NIH funding mechanism that encourages collaboration across various Institutes, will be allocated \$7.4 billion to further fund research currently supported by the NIH with an additional \$800 million overseen by the Office of the Director. A total of \$1.8 billion is earmarked for building and equipment repair.<sup>7,8</sup>



One interesting side note, the NEJM reports that funding for the NIH was included in

later drafts of the legislation at the insistence of Senator Arlen Specter.<sup>10</sup> Specter, a survivor of a brain tumor and two bouts of Hodgkin's disease, is a strong NIH supporter and one of only three Republicans who voted for the ARRA.<sup>10</sup>

What was the rationale for devoting tremendous resources towards expanding biomedical and health economic research efforts during a severe economic downturn? Evidence exists that public investment in such research is very beneficial to state and local economies through the creation of research positions – on average, 7 jobs per grant – as well as through the business NIH grants help to stimulate.<sup>20</sup> A recent study funded by USA Families found that for every dollar spent by the NIH in FY 2007, the average return was about \$2.21; for some states, such as Texas, the return was as high as \$2.49.<sup>21</sup> Dr. Raynard Kington, the current Director of the NIH, made a similar case during his testimony to the House Subcommittee on Health on November 13, 2008.<sup>22</sup> He stated that review of the outcomes of 31,144 grants awarded in FY 2000 show 30,477 invention disclosures, 17,341 non-provisional patent applications, and 6,909 patents created.<sup>22</sup> This economic reasoning, as well as the very real potential for important research findings that are applicable to an improved healthcare system, spurred the inclusion of the NIH as a significant recipient of stimulus funds.



As part of the \$800 million overseen by the Director, the NIH has put aside at least \$200 million for FY 2009 specifically for what it terms the Challenge Areas program. This new program will provide significant up-front funding for projects that the NIH considers to be especially promising and beneficial; within each Challenge Area are Challenge topics that will receive precedence over other grant requests. These 15 Challenge Areas are:

- Behavior, Behavior Change, and Prevention
- Bioethics
- Biomarker Discovery and Validation
- Clinical Research
- Comparative Effectiveness Research
- Enabling Technologies
- Enhancing Clinical Trials
- Genomics
- Health Disparities
- Information Technology for Processing Health Care Data

- Regenerative Medicine
- Science, Technology, Engineering and Mathematics Education (STEM)
- Smart Biomaterials – Theranostics
- Stem Cells
- Translational Science<sup>14</sup>

*Impact of NIH grants.* What can we expect out of these increased allocations? In addition to funding traditional research topics, such as immunizations and cures for chronic and communicable diseases, one theme that clearly permeates the NIH Challenge topics is a focus on evaluating how best to incorporate and adjust to new technological advances that have not yet been fully realized in the current healthcare system. For example, a number of grant topics deal with new ethical and safety challenges associated with increased use of electronic healthcare data and medical records, use of nano-materials, genetic mapping and bio-marking as a diagnostic tool, and use of stem cells.

In terms of what these research topics foretells for the U.S. healthcare system, the hope is that advances in science and technology will fuel improvements in healthcare delivery and access; particularly in areas where the U.S. system has traditionally fallen short, such as mental health and long-term care for chronic illnesses. So, for example, mental health practitioners may soon be able to detect and treat depression or bipolar disorder using biomarkers – that is, through the detection of certain genetic or biological attributes - rather than through the evaluation of particular symptoms. This, in turn, would likely allow for greater insurance coverage for mental health patients.

### **Rural Health Systems Investments:**

The ARRA also has substantially increased funding towards augmenting human resource

capacity among healthcare professionals by allotting \$500 million towards the Health Resources and Services Administration (HRSA) to train additional numbers of physicians and nurses.<sup>7,10</sup> Of this amount, \$300 million will go specifically to the National Health Service Corps (NHSC), the government institution that provides student loans, salary support, and scholarships to healthcare providers and physicians who are willing to practice in rural and underserved areas.<sup>7,10</sup> This again reverses the Bush Administration's policy of reducing funding for such services; in 2008, the NHSC was only able to award 84 scholarships, as their budget had been reduced to \$125 million.<sup>10</sup> Since its inception in 1970, NHSC has placed 15,000 physicians in 5,000 rural or underserved communities, and has provided needed healthcare services to many of the 20% of Americans living in rural areas.<sup>23</sup>

Another provision in the ARRA will also use \$7.2 billion to develop high-speed broadband access to remote areas as a possible way of promoting and expanding the use of telemedicine in rural health systems.<sup>7</sup> Telemedicine entails the use of information and communication technology to improve consultation services between rural clinics and providers in certain specialties and subspecialties ranging from neurology to family practice to internal medicine. Where resources have been made available to rural clinics, telemedicine has been very successful at alleviating time and space constraints to healthcare access for rural patients.<sup>24</sup>

This, coupled with the additional resources to the NHSC, seems to suggest a renewed federal interest in addressing a common problem that has plagued the U.S. health system: poor health coverage and service delivery in rural areas. When compared with their urban counterparts, rural populations are more likely to report fair or poor health, suffer from chronic diseases such as diabetes, and have greater mortality rates due to heart disease.<sup>25</sup> By increasing the human resource capacity in underserved communities, either through greater numbers of

healthcare personnel or through improved communication, the federal government appears to be making a greater effort at transforming rural access to health care.

### **Does the United States have a different health system post-ARRA?**

The short answer would be “no.” The ARRA funds temporary changes or long term investments and, as a result, health professionals are still providing services in the same manner, health insurers are still providing coverage for a similar group of individuals, and costs continue to balloon.

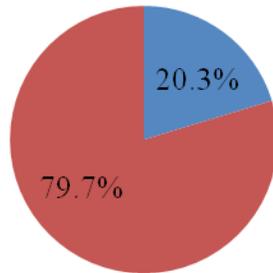
However, the ARRA has set the stage for large scale health reform. In other words, the health system may have survived the ARRA, but change is on the horizon. The reinvestment portion, specifically CER and HIT, have implications for making the current health system more efficient or for contributing to more large scale changes. Discussions of health reform (such as public-private competition) continue to frame reform in terms of efficiency and competition. CER and HIT may provide the backbone for more reforms in this arena.

The ARRA has also made promoting additional reforms easier. The ARRA, along with the president’s focus on health reform, tied the economic crisis to the health system—framing the health issue as an economic issue and a major problem facing America. As a result, addressing the problem becomes more of an imperative. Making health central in the stimulus also increased political attention to the issue and helped to generate political support for reform. For example, providing subsidizes for COBRA may have helped to frame the issue as affecting the middle class.

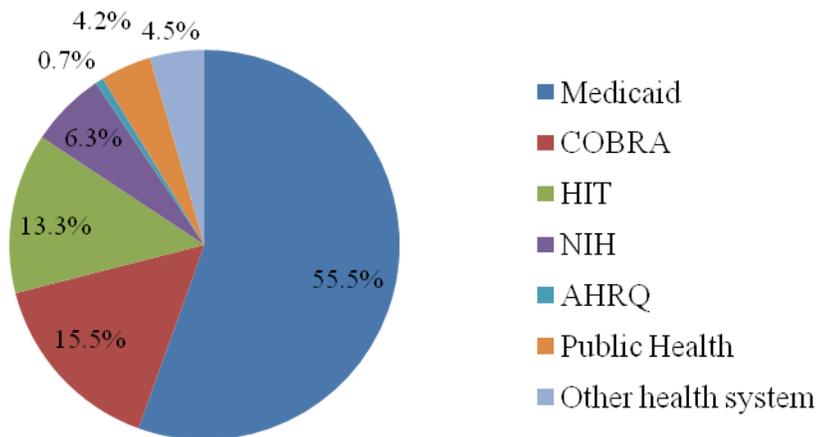
In conclusion, health spending likely comprises 20% of the stimulus bill not only to provide economic relief and recovery for vulnerable populations, but also to jump start the democratic agenda for health reform.

**Figure 1: Health spending in the American Recovery and Reinvestment Act of 2009**

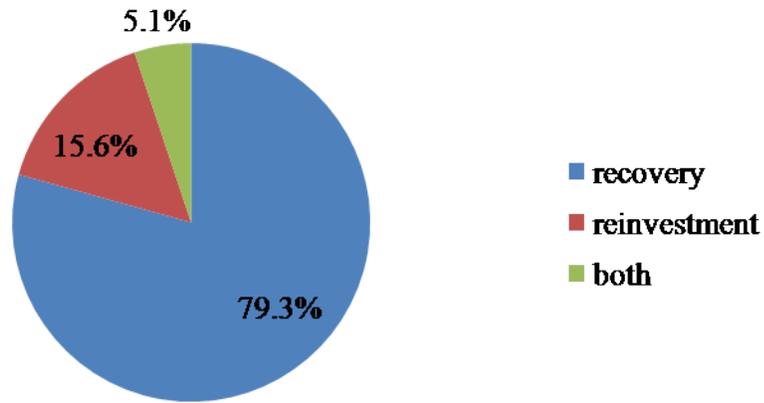
■ health spending ■ other spending



**Figure 2: Health spending by type**



**Figure 3: ARRA health spending categorized by recovery and reinvestment**



## Appendix 1: Health Spending in the American Recovery and Reinvestment Act

<b>159,649,000,000</b>	<b>Total Health Spending</b>
<b>88,599,000,000</b>	<b>Medicaid</b>
86,600,000,000	temporary increase in the federal share of Medicaid costs (projected)
1,300,000,000	extension of Transitional medical Assistance (projected)
460,000,000	temporary increase in DSH allotments (projected)
134,000,000	eliminating cost-sharing for American Indians and Alaska Natives
105,000,000	extension of the moratorium on some Medicaid Regulations (projected)
<b>24,780,000,000</b>	<b>COBRA</b>
24,700,000,000	temporary subsidies for COBRA (projected)
80,000,000	administrative costs for temporary subsidies for COBRA
<b>21,230,000,000</b>	<b>Health Information Technology</b>
17,000,000,000	fiscal incentives to encourage Medicare and Medicaid providers to implement health information technology (projected)
2,000,000,000	administrative costs for Office of the National Coordinator for Health Information Technology
1,045,000,000	administration costs for Medicare and Medicaid Incentives
1,000,000,000	implementation of and research on health information technology (Social Security Administration)
85,000,000	Indian Health Service health information technology systems

50,000,000	Veteran Affairs health information technology systems
50,000,000	Public Health and Social Services Emergency Fund for improving technology systems
<b>10,000,000,000</b>	<b>National Institute of Health</b>
8,200,000,000	NIH Common Fund; general grants with few exclusions
1,000,000,000	construct, renovate, or repair non-Federal research facilities
500,000,000	high-priority repair and construction of NIH facilities
300,000,000	research instruments and equipment
<b>1,100,000,000</b>	<b>Agency for Healthcare Research and Quality</b>
700,000,000	comparative effectiveness research; 400,000,000 will be transferred to NIH
400,000,000	comparative effectiveness research; use directed by the Secretary of Health and Human Services
<b>6,825,000,000</b>	<b>Public Health and Prevention</b>
4,000,000,000	Clean Water State Revolving Fund to improve safe drinking water
1,000,000,000	Prevention and Wellness Fund for immunization programs and community based health
600,000,000	Hazardous Substance Superfund for the disposal of hazardous substances
500,000,000	Special Supplemental Nutrition Program for Women, Infants, and Children
200,000,000	Leaking Underground Storage Tank Trust Fund for cleanup activities for hazardous waste
225,000,000	Violence Against Women Prevention and Prosecution Programs

100,000,000	National School Lunch Program for schools with 50% or more students eligible for free or reduced meals
100,000,000	Lead Hazard Reduction Program to test and remove lead paint from homes in low income neighborhoods
100,000,000	nutrition services for older adults

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**7,115,000,000    Other Health System Spending**

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2,500,000,000	broadband infrastructure for telemedicine and distance learning
1,500,000,000	federally qualified health centers for building repairs and construction
1,000,000,000	Veterans Affairs for building maintenance and energy projects
500,000,000	federally qualified health centers for service delivery
500,000,000	National Health Service Corps and other health workforce shortage grants
415,000,000	Indian Health Service for facility maintenance and sanitation
400,000,000	Defense Health Program for building maintenance and energy projects
150,000,000	National Emergency Grants may be used to help individuals obtain health insurance
150,000,000	Veteran Affairs for the construction of state extended care facilities

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