## US sequester hits health and science programmes

Health and science agencies in the USA have been operating on reduced budgets, enforced by sequestration, for just over 3 months. Susan Jaffe reports from Washington, DC.

The automatic budget cuts known as sequestration that the US Congress approved in 2011 were intended to be so onerous that they would never happen. Lawmakers would surely find a more reasonable way to save at least US\$1.2 trillion over the next decade before the cuts would begin in 2013.

Instead, Republicans and Democrats could not agree on an alternative, and the first wave of cuts, totalling \$85 billion through to September, 2013, are phasing in for most non-defence US Government operations. Everything from White House tours to the most promising cancer research have been limited by a lack of funding.

Almost immediately, airports reported delays when some air traffic controllers had to take furloughs in April. To alleviate the domino-effect of flight back-ups, Congress passed legislation that permitted the Federal Aviation Administration to use money for infrastructure repairs to pay air traffic controllers and air traffic returned to normal, just in time for Congress members to travel home for a scheduled recess.

But many services provided by the US Department of Health and Human Services (HHS) do not have that protection, including programmes at the Food and Drug Administration (FDA) and the Centers for Disease Control and Prevention (CDC), and medical research funded by the National Institutes of Health (NIH). Even the Affordable Care Act (ACA)— President Barack Obama's landmark health reform law-will feel the impact, with supporters worried that enrolment for next year's new health insurance coverage will have a difficult start in October.

"Sequestration indiscriminately cuts funding across most HHS

activities", says Tait Sye, HHS deputy assistant secretary for public affairs.

The USA is applying "the same meat axe to its support for science and technology as it does to most of the discretionary budget", Francis Collins, the National Institutes of Health director, tells *The Lancet*. "Then we somehow imagine that this is good fiscal policy."

However, the budget law that triggered the cuts does shield, for the most part, the major historic entitlement programmes millions of Americans consider sacrosanct, including Social Security and Medicaid, which provides health care for low-income families, and some benefits

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for veterans. Medicare, the health-care programme for nearly 52 million older and disabled Americans, is largely unaffected, with one exception. the Although sequester not affect benefits, payments to physicians and other providers who treat Medicare patients have been cut by 2%. "The across-the-board cut will hit physicians particularly hard because of the fundamentally flawed Medicare physician payment system", American Medical Association president Jeremy Lazarus said when sequestration took effect on March 1. Payments have increased by only 4% since 2001, he said, and "a 2% cut widens the already enormous gap between what Medicare pays and the actual cost of caring for seniors."

The Medicare provider payment cuts range from an estimated

\$10.7 billion in 2013, and rise to \$16.4 billion in 2021, according to government projections. A spending cut of this magnitude is expected to result in a loss of up to 766 000 health care and related jobs by 2021, concluded a study commissioned last year by the American Medical Association, American Hospital Association, and the American Nurses Association.

Despite modest increases in the FDA's budget and new user fees, FDA commissioner Margaret Hamburg has been concerned that the agency won't be able to keep up with its new responsibilities. In recent years, the FDA's mission has expanded to include inspections of domestic and foreign generic drug manufacturing facilities, regulation of tobacco products, and increased monitoring of imported produce.

Sequestration imposes a 5% cut on the FDA, or an estimated \$209 million this year. About \$85 million of that amount are user fees from drug makers that usually pay for as much as 60% of the cost of drug reviews. Although the user fees will be collected, Hamburg said those payments remain off-limits in the US

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NIH head Francis Collins describes the sequester as a "meat-axe" style approach

Treasury. "They cannot be used to support critical tasks such as issuing regulations and guidances, keeping up with inspections, and delivering on performance commitments to speed the pathway to approval for many of the products Americans depend on", Hamburg said at a conference in April. "I remain enormously troubled that FDA's responsibilities continue to outstrip available resources", she said.

The CDC works around the clock to investigate health threats from foodborne diseases, natural disasters, or other emergencies, collects and analyses data on the prevalence of disease, and promotes preventive health measures like immunisations and HIV testing. Sequestration will cut about \$293 million from this year's \$6.2 billion budget. About 70% of CDC funds go to state and local health departments, nonprofit organisations, and others that provide free or low-cost immunisations, other services, who investigate disease outbreaks. "All our programmes will be impacted", Tom Skinner, a CDC spokesman, tells The Lancet. Agencies cannot decide how to apply the cuts or "move money from one pot to another", he says.

The CDC would provide around 424 000 fewer HIV tests and 7400 fewer patients would have access to HIV drugs, according to estimates HHS Secretary Kathleen Sebelius provided to the US Senate Committee on Appropriation in February. If the agency can't afford to keep up with the growth in demand, Sebelius has said patients could wind up on waiting lists for HIV drugs.

The NIH is the world's largest supporter of biomedical research, director Francis Collins reminded reporters shortly before cuts of nearly \$1.6 billion took effect. But this year, NIH-funded investigators will have a one out of seven chance of getting support for new projects, compared with one of three a decade ago, Collins tells *The Lancet*. "This is

a particularly painful moment", he says. The cuts come after a decade of flat budgets that have been eroded by inflation, shrinking the agency's purchasing power by about 20%. With sequestration, "you are really cutting into the bone".

As a result, Collins estimates about 25 000 research jobs across the USA will be lost. That will slow down research on cancer and Alzheimer's disease, among other projects, as well as delay the development of a universal influenza vaccine, he says.

About 700 patients who would have enrolled in the NIH clinical trial centre will also be turned away this year, even though accessing an experimental drug may have been "their last hope" to control their disease, he adds.

In contrast, countries such as China and India are maintaining or even increasing their support of biomedical research, as have Germany and the UK, despite economic challenges, Collins added. "There's a good reason for that."

In addition to providing health coverage to about 30 million uninsured Americans, the ACA creates a new system of buying private health insurance, requires these new policies to include a minimum of benefits, prohibits discrimination based on pre-existing health conditions, and provides subsidies and tax credits for those with low incomes. It also requires most Americans to have health insurance-and most employers to offer it-or pay a fine. This is all supposed to be set up by January, 2014, and enrolment begins in 3 months.

Sequestration exempts most of the ACA's federal funding, including money for states that agree to a Medicaid expansion, subsidies for most small businesses that offer coverage, and health-care delivery innovations aimed at controlling costs. New taxes and fees that would also support the ACA are not affected by the mandatory cuts.

However, sequestration applies to discretionary funds HHS uses to implement health reform, including money to defray some costs for low-income families, and to help people choose a health plan and determine their eligibility for subsidies.

"We have been very concerned about the ability of states and HHS to support consumers with the many enrolment decisions they will be making and people will need help with tax credits", Cheryl Fish-Parcham, deputy director for health policy at Families USA, a national consumer health advocacy group, tells The Lancet.

HHS has been trying to reassure supporters that the ACA can be implemented on time, "with the resources available", says Tait Sys, the HHS deputy assistant secretary.

In April, HHS officials announced that community groups across the country could apply for grants totalling \$54 million to individuals select and apply for coverage next year. But to fund these efforts, HHS took the money from the ACA's Prevention and Public Health Fund, a programme championed by Senator Tom Harkin, an Iowa Democrat and leading ACA supporter. "Robbing prevention when we know these efforts can improve people's health and lower health-care costs goes against the very mission of health-care reform", he said at a recent congressional hearing.

Still, sequestration could be stopped if Congress agreed on a new spending plan. President Obama's proposed 2014 budget "will avoid sequestration's harmful budget cuts and reduce the deficit in a balanced way—by cutting spending, finding savings in entitlement programmes, and closing tax loopholes", says Sye. So far, there has been little progress in reaching a consensus to put an end to the cuts most Congress members never wanted in the first place.

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