SAVING CHILDREN

SUING AN ALGORITHM:
Legal challenges in the age of AI

EMERGING THREATS to the
U.S. financial system

Giving patients control over
their MEDICAL DATA
<table>
<thead>
<tr>
<th><strong>1. Two Years of War in Ukraine</strong></th>
<th><strong>2. Is Artificial Intelligence an Existential Risk?</strong></th>
<th><strong>3. Classroom Limitations on Discussions of Race or Gender</strong></th>
<th><strong>4. A Game About the Challenges of Immigration Policy in the United States</strong></th>
<th><strong>5. Repeated Exposure to Low-Level Military Occupational Blasts</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>February marked the second anniversary of Russia’s full-scale invasion of Ukraine. In this podcast, RAND researchers weigh in on several important issues, including how the war has evolved and where it may be headed, what Ukraine can expect from the United States and the West, the continued risk of escalation by Moscow, and more. MORE AT <a href="http://www.rand.org/a240216">www.rand.org/a240216</a></td>
<td>At a recent RAND event, experts discussed the potential risks associated with AI. While the gathering highlighted RAND’s diversity in academic disciplines and perspectives, the panelists were unsurprisingly unanimous that independent, high-quality research will play a pivotal role in exploring AI’s short- and long-term risks—as well as the implications for public policy. MORE AT <a href="http://www.rand.org/b240311ai">www.rand.org/b240311ai</a></td>
<td>Since 2021, many states have passed policies restricting discussions about race- or gender-related topics in the classroom. RAND surveyed educators across the United States to find out how these restrictions are influencing their instruction and students’ learning. MORE AT <a href="http://www.rand.org/t/RRA134-22">www.rand.org/t/RRA134-22</a></td>
<td>Borders and Values is a board game that allows players to explore the challenges and complexity of immigration policy in the United States. Four players represent the main actors on this issue: The Migrant player takes on the role of all potential immigrants seeking to come to the U.S.; the Civil Society player represents public opinion; the Business player represents the U.S. business community; and the Government player represents all the components of the U.S. government that affect immigration and border security policy. MORE AT <a href="http://www.rand.org/t/TLA2458-1">www.rand.org/t/TLA2458-1</a></td>
<td>Biomedical engineer Samantha McBirney made several recommendations on how the U.S. Department of Defense can better protect the health and well-being of U.S. service members, in testimony presented before the United States Senate Committee on Armed Services, Subcommittee on Personnel, in February 2024. MORE AT <a href="http://www.rand.org/t/CTA3250-1">www.rand.org/t/CTA3250-1</a></td>
</tr>
</tbody>
</table>
The World Health Organization describes oral rehydrating salts as an "excellent way" to prevent the dehydration that can make diarrheal diseases so deadly. The salts are widely available in low- and middle-income countries, often sold in packets for a few cents. But a recent RAND study found that health care providers often fail to prescribe the salts because they don’t think that’s what their patients want. Changing that—by, for example, encouraging parents to request salts—could save thousands of lives a year.
Strengthening the Resiliency of Weapon Systems

The U.S. Air Force could improve how it designs weapon systems to make them more secure and more resilient to cyberattacks. It also needs to strengthen its policies and procedures to make sure its weapon systems stay that way, a recent RAND study found.

Cybersecurity keeps attackers out; cyber resiliency ensures weapon systems continue to operate as needed even if an attacker gets in. Traditional approaches to security and resilience have limitations when applied to cyberspace.

For example, systems may employ built-in redundancies as a way to provide resilience, so that if one component fails, a backup can take over. But a lack of diversity in the design and engineering of those components could allow a cyberattack to render both inoperable. This underscores the need for cybersecurity and cyber resiliency to be a central part of systems engineering and life-cycle sustainment plans.

The Air Force’s current approach puts too much emphasis on cybersecurity only after it takes delivery of a weapon system. It should start thinking about cybersecurity and cyber resiliency much earlier, embedding them into engineering plans and procurement requirements. It also needs to be able to update how it configures and operates weapon systems to account for evolving threats from cyber attackers.

Once a weapon system is online and operational, the Air Force should approach cybersecurity and cyber resiliency the way it approaches aircraft maintenance, researchers concluded. That means providing specialized tools, training, and written procedures for each system. That may increase some costs, but the return on that investment would be weapon systems that are more secure and resilient to attack.

Maintaining that security and resilience requires a dynamic effort throughout the life cycle of every weapon system. “Security efforts,” the researchers wrote, “are never complete.”
The Need for More Specialists in Explosive Ordnance Disposal

The U.S. Army needs to recruit and train more bomb-disposal specialists as it prepares for the demands of future wars, a recent RAND report found. Otherwise, it risks not having the expertise it needs to protect lives, both at home and abroad.

Specialists in explosive ordnance disposal (EOD) are trained to neutralize everything from a roadside bomb to a weapon of mass destruction. They also provide protection to the president, vice president, and other VIPs by, for example, sweeping rooms for explosives before they enter.

The Army drew down its EOD forces as the wars in Iraq and Afghanistan ended. As it looks to the future—and to the possibility of large-scale combat operations in a future war—it asked RAND to assess whether it has sufficient EOD forces to carry out its missions.

The short answer: No. The regular Army plans to increase its EOD numbers, including enlisted personnel and officers, by 9 percent through 2028, over 2021 levels.

RAND’s analysis found the increase should be more like 49 percent. The problem is even more concerning in the Army National Guard. It needs to increase its inventory of enlisted EOD specialists by more than 400 percent, and its officers by more than 200 percent.

In a major war, researchers concluded, the Army’s planned EOD force would not be enough to support all units under existing doctrine. VIP missions would further strain the force—but the Army has not included them in its calculations. That’s an oversight, researchers warned. During a major war, protecting the president and other dignitaries will be a critical part of the Army’s homeland defense obligations.

The Army could fence off some National Guard units to perform those VIP missions, researchers wrote. That would allow other units to focus on training for combat missions. It also should consider revising its doctrine to provide more flexibility in how it assigns the EOD forces it has.

RAND.ORG

MAY–JUNE 2024
Research Briefly

Helping Military Services Meet Recruiting Goals

Federal law requires most public high schools to give military recruiters the same access they give to college or corporate recruiters. But not all schools comply. As it struggles to fill the ranks, the Pentagon asked RAND to look at the challenges recruiters face, and how they could better engage with schools.

Researchers analyzed a database of recruiter reports on more than 19,000 high schools. They found that around 5 percent—more than 1,000 schools—presented access challenges to military recruiters.

Those schools tended to be larger, urban, with lower rates of students getting free or reduced-price lunches, a marker for poverty. Other factors—including the political leanings of the surrounding area and the number of veterans living nearby—did not seem to make much difference.

In interviews, though, military recruiters said they often face constraints when they visit schools, even those that don’t block their access outright. Some said they have to sit in designated areas, away from students, or can only visit a few times a year. They said they often work 60 hours a week, so meeting with school administrators and negotiating access can be a challenge.

But recruiters and administrators both said those relationships are often the key. Recruiters should work with schools to develop policies and procedures for their visits, researchers wrote. They should also receive more formal training on how to engage with local communities. The military should take steps to better document school noncompliance with access laws—but also any complaints or concerns from schools about recruiters. Federal policymakers could also help by clarifying—for schools and recruiters—what “adequate access” actually means.
The Reach of American Overdose Deaths

More than 109,000 people in the United States died of a drug overdose in 2022. But that doesn’t capture the full toll of the nation’s drug epidemic.

Studies have shown that millions of people have lost close friends or family members to overdose deaths. But researchers at RAND suspected even that did not convey the enormous impact that every drug-related death can have. They were guided by research on suicide, which has found that every death ripples outward to affect the lives of as many as 135 people.

The researchers turned to the RAND American Life Panel, a nationally representative sample of American adults. They posed two questions to more than 2,000 panel members: Had they personally known someone who died by drug overdose? And if so, how had the death affected their lives?

The results showed that 42 percent of Americans have known someone who died by overdose. That works out to around 125 million people directly affected by the nation’s drug crisis. The rate was especially high in parts of New England and in central-southern states from Kentucky to Alabama.

Around one-third said the death had disrupted their lives. And roughly one in 20 described the impact as significant or devastating and said they still feel it today. That’s more than 12 million people haunted by an overdose death.

That kind of loss has been associated with prolonged grief, mental health and substance use disorders, and suicidal thoughts. Public health agencies have worked to provide services to immediate family members and close friends of people lost to drug overdoses. But RAND’s findings suggest they have overlooked millions of other loss survivors who may need the same kind of support.
Your Body, but Not Your Data

By Shira H. Fischer

A 2023 survey found that 36 percent of patients feel somewhat or extremely uncomfortable with their health data being used for research, even if the data are stripped of their name and other details. That 36 percent might not realize that this is already happening.

The moment patients arrive at any health care facility, they lose control of their data. Someone will hand them a HIPAA document to sign about patient data privacy practices, but a signature merely attests that the information has been delivered, not that it’s agreed to. Sign it or don’t—getting care in the hospital means those rules will apply.

That includes using personal health data for medical research. No permission needs to be granted for that. And patients typically have no way to opt out.

Patient privacy laws have two somewhat conflicting goals: to keep medical information private, but also to make it appropriately shareable to enable coordination of care. For example, if a woman lands unconscious in the ER, a doctor would want to know what medicines she is allergic to. Similarly, public health agencies need to know if infectious diseases, such as COVID-19, are spreading. Medical researchers also use patient data to study the effects of treatments across large populations.
This is a delicate balance. The public needs rigorous and thorough health research, but individual patients should have rights over their medical information. Today they have very little.

When anyone receives medical care, information about their condition and treatment is entered into a large database. Under HIPAA, it can be accessed for treatment, billing, and “operations,” meaning the things that are needed to make the medical system run. That information sticks around for a long time. Under federal law, health care providers must keep their records for at least six years and in some places, longer. Partly, this is because hospitals and health systems need records for billing and lawsuits later on. So in contrast with businesses like Google or Meta, which have been required by state laws, such as California’s Consumer Privacy Act and Virginia’s Consumer Data Protection Act, to delete your personal information when asked, your health care providers have an obligation not to do so. Patients cannot erase or remove their data from a hospital’s system.

Health researchers get their hands on treatment data from their own institution (or, potentially, from another institution) by asking permission from an ethics panel called an Institutional Review Board. With an IRB’s approval, patient data can be shared with that researcher and their team. It might be scrubbed of your name, birth date, and other identifying information. But if the study requires it, the researcher might be given access to the full-text notes in a medical file. No patients will be told.

Granted, it would be a huge burden for every researcher to ask every patient about every study they conduct. That’s why IRBs generally grant the use of “retrospective data”—data that’ve already been collected while providing medical care—especially if the data are de-identified. It’s low-risk to the patient and can be high-yield for science. This “de-identified data” can, further, be traded and even, in some cases, sold to companies—also without a patient’s consent or knowledge.

But what if patients do not want to participate, for whatever reason? Maybe they are sensitive about something in their medical chart. Maybe they work at the hospital and don’t want colleagues reading their medical records. Maybe they just want the option. Maybe—and for good reasons—they don’t trust that data still filled with free text fields, time stamps, and other details about medical treatment sufficiently protect their privacy. An inability to control data-sharing can lead patients to withhold important information from their own health care providers.

Legally, patients are allowed to request limits on the use of their medical information, but a hospital does not have to grant them. Last year I asked Mass General Brigham in Boston, where I live, how I could opt out of their research database if I wanted to do so. They said they did not have a mechanism that allows that.

The irony is that this current dynamic of scrubbing and releasing data doesn’t necessarily produce the best research. The more information that is redacted, the less useful the data are to researchers. As Nigam Shah of Stanford has argued, de-identification doesn’t successfully maintain privacy. But it does make it harder for researchers to use the data, for example, if treatment dates, which are considered identifying information, are removed.

We’re not stuck with this situation. Notable improvements in ethics guidance and privacy laws have been made over the years, such as the 2018 changes to the Common Rule that governs human subjects research and the 21st Century Cures Act changes to the privacy rule to make research easier. Patients no longer have to pay for and wait for photocopies of medical records to come in the mail—they can now be downloaded as a PDF. So, access has slightly improved—but not protection.

We have a ways to go before our laws successfully achieve the two important goals described above: Medical privacy laws should give patients control over their data—and allow the sharing of more complete data to accelerate and improve medical research. Right now, we’re failing at both.
What Went Wrong in Yemen

Alex Stark thought this year would be different. She studies Yemen, a country that has been mired in civil war for nearly a decade. And at this time last year, peace finally seemed within reach.

Then Oct. 7 happened. The war in Gaza happened. And hopes for peace in Yemen slipped away again.

Stark is an associate policy researcher at RAND. In a new book, she documents the missteps and missed opportunities that allowed a rebel militia, the Houthis, to seize much of the country in 2014. The Houthis, backed by Iran, are now attacking commercial ships in the Red Sea in a show of support for Gaza. Peace talks have stalled. Instead, the United States and its partners have launched large-scale airstrikes against Houthi missile sites.

Stark’s book, published in April, is titled The Yemen Model: Why U.S. Policy Has Failed in the Middle East. Understanding what went so wrong in Yemen, she argues, provides a window into how the U.S. could play a more effective role throughout the region.
What made you decide to write this book?

Yemen is a place that many Americans don’t really know about, don’t really think about—but it’s been a major part of U.S. policy for decades. I’ve seen memos from President Kennedy in the 1960s talking with his senior advisers about what the United States should do in Yemen, what U.S. interests are. More recently, Yemen has been the site of one of the worst humanitarian crises in the world, with children starving and millions of people displaced. I wanted to take a closer look at the U.S. approach to Yemen because Yemen just keeps coming back into the conversation about U.S. policy in the region.

Why has U.S. policy failed there?

‘The Yemen Model’ is a term that U.S. officials used in 2013 and 2014 to talk about how the United States was conducting counterterrorism there. They thought it was so successful that it could be a model for other places. Then, in September 2014, the Houthis took over the capital city of Sana’a and the country descended into civil war. U.S. officials had this very narrow counterterrorism focus, and so they were blinded to what was really happening.

That’s always been the U.S. approach to Yemen. It’s always about something else. It’s about counterterrorism or countering Iran; during the Cold War, it was about countering Soviet influence. It’s not really about Yemen itself, what might be good for Yemen, what would make for a more stable society there.

How do you think the U.S. should reorient its approach?

Policymakers should start asking: How can we help Yemenis make Yemen a more stable place, a place where people are safe and secure and they can work and make money and feed and support their families. That could go in a lot of different directions, but here’s one. Climate change is going to be a significant challenge for Yemen. It’s a poor country, it has very few water resources. What would it look like for the United States to really work with its partners in the region to help Yemen deal with the effects of climate change?

People might say, ‘Oh, that’s naïve, we have to think about U.S. interests.’ But it’s critical that we get outside of this narrow box of how we’ve always thought about Yemen and think about different approaches we could take. What we’ve been doing hasn’t worked.

It seems like Yemen is really at a tipping point right now. What are you watching for in the months to come?

The Houthis have kept up the tempo of their attacks on shipping since January of this year. I’ll be interested to see whether the pace of those attacks declines over time. The Houthis themselves have gone out of their way to tie those attacks to the conflict in Gaza. I don’t think we can necessarily take them at their word. But it will be interesting to see whether what happens in Gaza really does affect their actions, and whether mediating that conflict can cool down some of these hot spots that have emerged.

What do you wish more people knew about the conflict in Yemen?

That diplomacy takes time. Sometimes there’s frustration when we try to engage in diplomacy and we don’t see any changes right away. But diplomacy is messy. It’s two steps forward, one step back. That’s all the more reason why we need the United States to be engaged for the long term in these kinds of conflicts. It’s complicated right now with what’s going on with the Houthis—and the civil war in Yemen is not over. But U.S. and U.N. efforts at diplomacy over the past few years have had a striking effect. They led to a truce that lasted for more than a year and a half, which really decreased the level of violence and opened up space for negotiations. You don’t hear about that in a lot of the news out of Yemen, but there is that small good-news story in there.

Your work at RAND has also looked at how to avoid escalation in Ukraine and how climate change could drive conflict throughout the Middle East. What motivates you to do the research you do?

I’m Jewish on my dad’s side and Armenian on my mom’s side. So stories about genocide and political violence and how that shapes people were just part of my life growing up. I’ve been interested ever since in thinking about how U.S. policy can mitigate, or even prevent, that kind of violence, and hopefully make people’s lives a little better. That’s the crosscutting theme that informs all of my research at RAND.
Emerging Risks to Financial Markets

By Doug Irving, Staff Writer
n early 2021, a freewheeling, freethinking group of investors on Reddit decided to flex some collective muscle. They plowed their money into GameStop, a video game retailer that several big hedge funds had bet against. The stock price shot up, some people made millions—and, to the delight of those on Reddit, the hedge funds had some very bad days.

Hollywood turned this all into comedy with the 2023 movie Dumb Money. But researchers at RAND also saw the GameStop story as a cautionary tale. If investors on Reddit could work together to move the markets like that, what could an adversary like China do?

The researchers started looking for other emerging or understudied threats to the U.S. financial system. In a recent report, they warned that the greatest danger is not a single, sudden attack, a financial 9/11. It’s the constant assault on reality—the deepfake videos and manipulated AI—that could weaken the financial system over time. It will be slow, but it will be steady and hard to stop—more like financial climate change.

“There are so many players in the markets, and they all have to interact and coordinate in specific ways for the markets to work,” said Tobias Sytsma, an associate economist at RAND who led the study. “When you throw sand into those gears, all of a sudden the markets get less efficient and can start to break down. And when that happens, it impacts not just financial sectors, but households. People’s savings disappear. It impacts all of society.”

The researchers convened focus groups at RAND. They interviewed experts in government, academia, and industry. Their main question was always the same: Which threats to the financial system should we be paying closer attention to? They came away with four answers.

1 Social engineering by meme. This is the GameStop story, weaponized. An adversary could flood social media with memes to create a frenzy around a particular stock or sector. Prices would rise—but then could come crashing back down, wiping out fortunes and destabilizing the broader market.

2 Attacks on AI. Around 80 percent of U.S. stock trades are executed by algorithm. Experiments have shown that tweaking as little as one word in the data fed into an investment model can wreck its performance over time. An adversary could try to target major financial institutions by leaving poisoned crumbs of data on social media for computers to scrape up and ingest.

3 Deepfakes. AI can now generate audio and video clips that are so realistic many people can’t tell that they’re fake. A few years ago, scammers mimicked the voice of a European CEO—down to his faint German accent—and tricked his colleague into wiring them $243,000. Adversaries could use deepfakes to compromise major companies or business leaders. They could also fan economic crises or controversies with fake outrages.

4 Bond dumping. China holds more than $800 billion in U.S. Treasury bonds. It could, in theory, dump them in an effort to rock U.S. markets and drive up interest rates. That would briefly make it more expensive for the U.S. to borrow money. With perfect timing, that could—again, in theory—trip up the U.S. response to a Chinese provocation, such as a move on Taiwan.

None of these is going to bring the financial system to its knees anytime soon. But that’s not necessarily the point. All of them could make the markets seem a little less safe, a little less secure. They could undermine public trust and reinforce the idea that what we think is real might just be a deepfake or a cleverly orchestrated meme campaign. That would worsen one of our great national maladies, a condition RAND calls “truth decay,” the diminishing role of facts and analysis in public life.
“It comes back to this idea of trust in each other, trust in the markets, trust in institutions,” Sytsma said. “That trust is actually critical to how markets function. When you start to lose that, you run the risk of greater market volatility and greater market losses.”

The experts RAND consulted were divided over how much danger these threats actually pose right now. AI manipulation? Possible. Meme campaigns? At least feasible. Bond dumping? “Highly improbable,” the researchers concluded. Russia and China toyed with the idea during the 2008 financial crisis. But China buys U.S. bonds to support its growth and bolster its currency. Dumping U.S. bonds now would be like shooting its own economy in the legs.

But deepfakes? Those already represent a “significant risk” to financial markets, the experts warned. One good deepfake video could briefly disrupt the market, they concluded. But a coordinated campaign of deepfakes could cause deeper and more-lasting harm—measured not just in trust, but in dollars.

Last year, for example, a photograph started spreading on social media that appeared to show an explosion at the Pentagon. Officials debunked it as a fake almost immediately. But the S&P 500 still dropped by .3 percentage points in a matter of minutes, a loss of potentially billions of dollars. And that was just from a photograph.

Advances in AI are making it much cheaper and easier to produce convincing deepfakes. Efforts to counter them are advancing as well; a model developed by Intel looks for biological markers like blood flow to separate real humans in videos from computer-generated fakes. But, for now, the deepfakers have the edge. In a 2020 competition, the winning deepfake-detection model got it right just 65 percent of the time.

Financial regulators have taken steps in recent years to protect the markets against deepfakes and other threats. They have called for greater monitoring of meme stocks, for example, and warned that too many institutions rely on the same AI models, leaving them all open to manipulation. They have sought to prevent sudden market swings by instituting “circuit breakers” that shut down trading when index losses exceed 7 percent.

But more could be done, the researchers wrote. Stronger policies against the misuse of AI in general could provide important safeguards for the market. More research into how truth decay could corrode financial systems would also help. But the threats are always evolving and advancing. The researchers recommended periodic exercises—economic wargames—to look for vulnerabilities and test whether existing defenses still hold.

That is a potentially $2.7 trillion concern. That’s what a 7 percent market loss would look like before the circuit breakers can kick in and stop the damage.
When AI Gets It Wrong

Shortcomings of AI Decisionmaking Raise Real-World Questions of Legal Accountability

By Doug Irving, Staff Writer

Elina Treyger followed the news with a growing sense of unease. Every day seemed to bring new examples of artificial intelligence making important decisions in people’s lives. What happens, she wondered, when it costs someone a job, or flags an innocent person as a fraud?

Treyger is a senior political scientist at RAND, but she’s also a lawyer. And what she really wanted to know was, Will people sue an algorithm? Will juries assign blame to something with no motives whatsoever?

She and a small team of researchers at RAND decided to find out. They designed a survey to test whether people are any less likely to challenge decisions delivered with the cold certainty of an AI. The results underscore the important role the American legal system can play in protecting people from algorithmic harm. The people in the survey were perfectly willing to take the computers to court.

“The legal system incentivizes good behavior and exposes bad outcomes through legal accountability,” Treyger said. “There’s been some concern that, if you’re on the receiving end of a bad algorithmic decision, you might not even know whom you could sue. But, as it turned out, at least in our experiment, that didn’t stop people.”

It’s not hard to find examples of bad algorithmic decisions. A few years ago, an automated system wrongly sent thousands of...
Michigan residents to collections for unemployment fraud. AI systems trained on historically biased data have recommended disproportionate jail time for Black defendants. A system trained on male-dominated employment data learned to penalize resumes from women.

But when the stakes are that high—when someone’s freedom or financial well-being are on the line—what recourse do people actually have when an AI gets it wrong?

The European Union recently gave people the legal right to get an explanation for any AI decisions that go against them, and to contest those decisions in court. Nothing that explicit exists in the United States. Policymakers here have mostly focused on regulating AI systems up front, making sure they cannot cause catastrophic harm before they go online. Addressing bad outcomes afterward has fallen in part to individuals being willing to take their chances in court.

But will they? Treyger is not the first legal scholar who has worried about that. For one thing, it’s not at all clear who the responsible party would be. The developers who wrote the code? The company that used it? It’s also often hard to know why an AI made a particular decision, which makes it tough to prove that it’s wrong. As a 2021 paper in Columbia Law Review put it, machine-made decisions are often “technically inscrutable and thus difficult to contest.”

Treyger and her team fielded their survey to provide the first nationally representative look at what people will actually do when faced with an unfair AI outcome. They asked 5,000 respondents to consider two scenarios.
In the first, a very well-qualified candidate applies for a job, makes it through the interviews—but then doesn’t get hired. The second scenario raises the stakes: An unemployed worker applies for benefits, gets rejected—and then gets flagged for potential fraud. For both scenarios, some of the respondents had a human making the decisions, and some had a computer.

Those who got the computer were much more likely to say the process was unfair and produced inaccurate results in both scenarios. They also were roughly 10 percentage points more likely to say it wasn’t transparent enough. The results point to what the researchers described as an “algorithmic penalty.” People seem willing to give human decisionmakers some leeway, even when they disagree with their decisions—but not computers.

The researchers then asked the respondents what they would do if they were the people in the two scenarios.

Even in the unemployment scenario, in which the outcome was not just wrong, but harmful, a third of those with a human decisionmaker said they would do nothing. Fewer than a quarter of those with a computer in the mix were so willing to let it slide. They were much more likely to say they would appeal, and slightly more likely to say they would sue. Respondents in both scenarios also were much more likely to say they would join a class-action lawsuit when the decisions were made by a computer.

“That’s encouraging,” Treyger said. “It means they’re not exempting algorithms from our general moral judgments. They’re willing to take legal action to redress algorithmic harms. That can be a real mechanism for accountability.”

White respondents tended to penalize the AI more harshly on most measures than non-White respondents did. The one exception was bias, but the differences were small. That may seem surprising; studies consistently show that AI systems trained on historical data learn to repeat historical biases, especially against racial and ethnic minorities. But when the researchers dug into the survey data, they found that non-White respondents didn’t necessarily trust the AI more when it came to questions of bias. They trusted human decisionmakers less. They didn’t penalize the AI any more harshly because they didn’t think the humans would make unbiased decisions, either.

The survey results suggest that people will continue to look to the courts to defend their rights even in the era of AI. Algorithmic decisionmakers might not have the intent or state of mind of humans, the researchers wrote—but that won’t prevent legal action when they cause undue harm.

Policymakers working to regulate AI should consider not just problems of bias, but also of accuracy and transparency. And they should consider spelling out a specific legal right for people to contest AI decisions, much like the European Union has.

“In some settings, you would just presume that existing standards cover that,” Treyger said. “We have a lot of antidiscrimination laws, and it seems like those would be just as applicable in an algorithmic context. But it’s not always so clear. And so one implication of our study is, yes, we should establish pretty clearly these rights in the law.”

Michigan just got a hard lesson in how willing people are to go to court when an algorithm upends their lives. Thousands of residents filed a class-action lawsuit when the state’s automated unemployment system wrongly accused them of fraud. Earlier this year, the state finalized $20 million in payments to settle the case.

Funding for this research was provided by gifts from RAND supporters and income from operations.
An Affordable, Life-Saving Treatment to Reduce Child Mortality in India

By Doug Irving, Staff Writer
Nearly half a million children succumb every year to one of the most prolific killers on the planet: diarrhea. A small packet of salts and sugar—retail price, a few cents—could save most of them. Yet health care providers around the world continue to prescribe antibiotics instead, to fight a disease that antibiotics usually won’t touch.

Researchers at RAND have been working for years to better understand why. In a recent study, they hired actors in India to pose as worried parents seeking care for a sick child. They found that health care providers often ignored the rehydrating salts—not because they didn’t think the salts would work, but because they didn’t think parents would want them.

“It would be like if you went to a health care provider and they said, ‘Oh, here, just take some Gatorade,’” said Zachary Wagner, an economist at RAND who led the study. “The providers just generally thought parents were there for something stronger, a ‘real medicine.’ That’s something we can work with to design better interventions. Almost no kids should be dying from this.”

In 1971, as war raged in what would become Bangladesh, millions of people fled across the border into India. Cholera soon swept through the overcrowded refugee camps. A visiting doctor described people lying on cots or on the open ground, too weak to get up. But, he wrote, “I was amazed by what I saw.”
Parents, grandparents, spouses, and friends were tending to the sick with cups of liquid taken from central drums. The liquid contained a mixture of rehydrating salts and glucose, or sugar, to help the body absorb them. The death rate could have been as high as 30 percent under the conditions at the camp, the doctor noted. Instead, it was closer to 3 percent.

Diarrhea kills by dehydration. The discovery that salts plus glucose and water can keep people alive has been hailed as one of the greatest medical advances of the past century. The mixture is now widely available in low- and middle-income countries, often sold in small packets with fruit flavors to mask the notoriously bad taste. Yet study after study has found that medical providers from south Asia to sub-Saharan Africa just don’t use it enough.

Wagner and his team designed their experiment to test several theories at once for why that is. They recruited dozens of actors in India and had them pretend to be parents seeking help for a 2-year-old child. Then they sent the actors to visit the same private health care providers that most parents in India would use: medical doctors, but also untrained rural clinicians, practitioners of traditional medicine, and pharmacists.

Maybe, the researchers thought, the problem was one of supply. They sent boxes of salt packets to clinics and pharmacies across two states in India. But the likelihood that those providers would then recommend the salts to one of the actors posing as a parent increased by only a few percentage points.

Maybe providers had a financial stake in selling more expensive medicines. The researchers had some of the actors say they were just looking for a referral and would buy whatever medicine they needed elsewhere. That eliminated any financial incentive—but, again, it only increased overall salt prescriptions by a few percentage points.

But then the researchers had some of the actors specifically ask for rehydrating salts by name. And when they did that, prescription rates nearly doubled.

“We were very surprised,” said Arnab Mukherji, an economist at the Indian Institute of Management Bangalore, who co-authored the study. “Generally, the doctor is seen to be someone who’s giving you advice, thinking about all of the variables and giving you what’s best for you. We didn’t expect to see such a large change in behavior when patients nudged them.”

But that still didn’t answer why providers were hesitant to prescribe salts in the first place. To find out, the research team surveyed more than 2,000 of those same providers. Almost all of them—86 percent—said they knew oral rehydrating salts were the correct treatment for a 2-year-old child with a simple case of diarrhea. But the salts don’t cure diarrhea; they only keep patients alive long enough to recover. The providers thought their patients wanted something more.

That’s a potentially fatal misperception. The researchers also surveyed 1,200 Indian families that had recently sought care for a child with diarrhea. The families were more than three times more likely to say they wanted rehydrating salts than antibiotics. But only 16 percent spoke up and expressed that preference to their provider. As a result, a majority of them went home with an antibiotic, not rehydrating salts—not even to take along with the antibiotic.

If all of the caregivers had requested rehydrating salts, the researchers estimated, the prescription rate would have jumped from around 42 percent to 67 percent. Eliminate supply shortages, and it would tick up to around 70 percent. Take away financial incentives to sell other medicines, and it would bump up again, to around 73 percent. That would save a lot of young lives.
Provider perceptions that patients do not want oral rehydration salts (ORS) are the most important barrier to ORS prescribing

"Providers might think that patients are just going to get rehydrating salts someplace else—but they don’t," Wagner said. "If the provider doesn’t prescribe it, they’re very unlikely to use it. And patients usually aren’t going in and saying, ‘Hey, I want this.’ It could be considered disrespectful, like telling the providers you know better than them. We need to find a way to change that."

That could be as simple as a poster hung up in a pharmacy, telling patients to ask for rehydrating salts instead of antibiotics. Providers thought that would give them more credibility when they prescribe something as simple and basic as a packet of salts. The research team also hopes to pilot a WhatsApp campaign that would send phone messages to parents of young children, encouraging them to speak up and ask for the rehydrating salts.

The research team, which also includes experts from Duke University and the University of Southern California, hopes to repeat the experiment in sub-Saharan Africa. Diarrheal diseases are an even deadlier problem there, and salt use is just as low.

“It’s always been mysterious to me why, when we have something like rehydrating salts, diarrhea continues to be the second- or third-largest source of mortality, especially for children,” said Mukherji, a Pardee RAND Graduate School alum. “This opens up a whole array of options to nudge doctors and patients to change that.”

His young son got sick not long ago. It wasn’t a diarrheal disease, but another virus that left him feverish and weak. The doctor thought he might need to be hospitalized—but decided to try a course of rehydrating salts first. “We were frantic,” Mukherji said. “He was just flat on his back. But we gave him the rehydrating salts, and he perked up significantly. After a few days of that, the fever broke. And then he was able to get back to being all over the place."
Millions of low-income Americans are waiting for a “golden ticket” that could finally get them into safe and stable housing. Many have been waiting for years. And even when they get it, there’s no guarantee they’ll be able to use it.

The ticket is a Housing Choice Voucher, better known as Section 8. More than 5 million people depend on the program to help them afford rent. Four times that many could be eligible—if vouchers weren’t as hard to find as a golden ticket.

An institute that advocates for solutions to the nation’s housing crisis has given RAND a $400,000 grant to study the voucher program and look for ways to improve it. The Cooper Housing Institute hopes to make the program more efficient and effective, a first step toward expanding it to more families in need.

“We think we can have a huge impact if we are able to effect change with the results of this study,” said Will Cooper, Jr., the institute’s cofounder and president. “We believe we can.”

With an annual budget of around $27 billion, the voucher program is the nation’s single biggest effort to get people into decent housing. The average household in the program makes just under $18,000 a year. The vouchers will cover up to 70 percent of their housing costs—if they can find a landlord who will rent to them. A recent study found that fewer than half succeed within 90 days.

The federal government pays for the program, but more than 2,400 local, state, and regional housing authorities actually run it. Some do a better job of moving people off the waiting list and into housing than others. That’s what RAND’s study will look at.

“Our main question is, What are some housing authorities doing right when it comes to the voucher program?” said Devon Cooper, secretary and director of the Cooper Housing Institute. “What are the best practices? And then, how can other housing authorities take what we learn and use it to get better?”

The institute grew out of work the Cooper family has been doing for more than 50 years. It owns WNC & Associates, Inc., a company that invests in and develops affordable rental housing.

It established the nonprofit Cooper Housing Institute in 2018. The institute’s purpose, family members said at the time, was to support research and programs that could address the nation’s lack of affordable housing and chronic homelessness. It has funded a feature-length documentary on innovative solutions to homelessness, and a college program to advocate for students in financial or housing crises. The $400,000 grant to RAND is its largest to date.

Will Cooper, Jr., said he had been impressed with previous research from the RAND Center on Housing and Homelessness. “I thought this would be a good opportunity to support research that will lead to better public policies,” he said.

RAND will partner with the Terner Center for Housing Innovation at the University of California, Berkeley. The study will have two parts.

First, researchers will look at how local housing market characteristics and other factors determine where people are most successful in using housing vouchers. Then they will interview local housing officials and experts about what could make the voucher program more effective.

“This is the first nationwide study in 20 years, that we’re aware of, to look at what determines the efficient use of vouchers in the Housing Choice program,” said Jason Ward, codirector of the RAND Center on Housing and Homelessness. “In that time, housing markets around the U.S. have reached unprecedented levels of unaffordability. That creates tremendous challenges for the program.”

RAND’s report is expected to be released in Spring 2025.

“The voucher program is one of the most flexible tools we have to solve the housing crisis,” Will Cooper, Jr., said—“if we can minimize the inefficiencies in the program, the lost allocations that don’t get used. We’re hoping we can get there with the recommendations from this study.”
SUBSCRIBE TO POLICY CURRENTS, RAND’S FLAGSHIP NEWSLETTER AND PODCAST

Insights

from the world’s premier nonpartisan think tank.

In your inbox

or your earbuds.

rand.org/policycurrents
Philanthropic contributions support our ability to take the long view, tackle tough and often-controversial topics, and share our findings in innovative and compelling ways.

campaign.rand.org

campaign.rand.org/pardee-rand