

Doomslayer: Weekly Progress Roundup

Grain and millionaire production reach record highs.

MALCOLM COCHRAN
JUN 29, 2025

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Economics & Development

- A new report from UBS claims that **there were 52 million people with a net worth between \$1 million and \$5 million in 2024**. That's **2.5 times as many as there were in 2000** after adjusting for inflation.

Energy & Environment

Conservation and biodiversity

- Mexico's Pacific islands are witnessing a remarkable seabird comeback**. Of 27 seabird populations that had vanished from these islands, **22 have returned in the past decade**, thanks to conservation efforts like removing invasive species and restoring habitats. Additionally, four new species, including the Blue-footed Booby and Caspian Tern, have begun nesting in the region.
- Zoo-raised northern leopard frogs have survived their first winter in the wild** at Washington's Columbia National Wildlife Refuge—a hopeful step toward restoring the species to its native range.
- Wolverines are making a comeback in Southern Finland**, where they were extirpated in the 19th century.
- Since 2007, the tiger population has grown fivefold in Thailand's Western Forest Complex**, a conservation area along the Myanmar border.

Energy production

- New York Governor Kathy Hochul has **announced plans** to construct the state's **first new nuclear power plant in decades**.

Pollution

- A London startup has developed **a device that captures up to 78 percent of carbon emissions from cargo ship exhausts** using quicklime pellets. Designed to fit into standard shipping containers, these units can be swapped out at ports, offering a practical retrofit solution for existing fleets. The company aims to deploy its first full-scale systems this year.
- Cattle farmers often dispose of cow dung by allowing it to decompose in large open-air ponds, a process that generates significant methane emissions. Scientists in New Zealand have discovered a potential solution: **adding polyferriic sulfate, a common wastewater treatment chemical, to the ponds cuts methane emissions by more than 90 percent** by disrupting the food supply of methane-producing microbes.

Food & Hunger

- Global grain production is on track to reach an all-time high of 3.6 billion tons** in the 2025–26 season, helping bring down food prices. Wheat, maize, and rice are now **20 percent, 2 percent, and 31 percent cheaper** than a year ago, respectively.
- Indonesia's childhood stunting rate fell from 21.5 percent in 2023 to 19.8 percent in 2024**.

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Health & Demographics

- CAR T-cell therapy**, which is already revolutionizing cancer treatment, **is also showing promise** against lupus.
- Drug overdose deaths among Americans under 35 fell by half between 2021 and 2024**, from over 31,000 to around 16,700.
- US heart attack deaths are down nearly 90 percent since 1970**, though deaths from other heart conditions—such as arrhythmias, heart failure, and hypertensive heart disease—have risen.
- Rwanda reduced chronic hepatitis B prevalence** from 3 percent in 2015 to just 0.25 percent in 2024.
- Childhood pneumonia deaths in Nepal have fallen 20-fold since the 1980s**, saving hundreds of thousands of lives.
- A new study** analyzing data from over 62,000 adults aged 70 and older across the U.S., England, and parts of Europe **suggests that younger generations are less likely to develop dementia at the same age as their parents or grandparents**.

Science & Technology

- DeepMind has just released **AlphaGenome**, an AI model designed to predict how DNA mutations affect gene regulation. **Unlike previous models, AlphaGenome can analyze the impact of genetic variants in the non-coding regions of the genome**, which contain more than 98 percent of human DNA and play a key role in controlling how genes are switched on and off.
- Deepmind also unveiled an **AI model that allows robots to accomplish complex tasks**, like like folding clothes or unzipping bags, **without an internet connection**.
- Tesla launched its first commercial robotaxi pilot in Austin, Texas**, last Sunday.
- An astronomical observatory in Chile has begun a decade-long project to create the most detailed map of the night sky ever made**. Using the world's largest digital camera, the Vera Rubin Observatory will scan the entire southern sky every few nights—tracking billions of stars and galaxies, along with millions of solar system objects, including asteroids and possibly the hypothesized Planet Nine.
- The aerospace company Beta Technologies recently flew one of its prototype all-electric aircraft from East Hampton Airport on Long Island to John F. Kennedy International Airport. **The 45-minute flight had an energy cost of just \$7**. According to Beta Technologies, a helicopter making the same trip would have burned \$160 of fuel.

Violence & Coercion

- Crime analyst Jeff Asher claims that **US crime rates are on track to reach historic lows in 2025**. Data from the first four months of the year indicate that violent crime has decreased by 11 percent, property crime by 13.8 percent, and murders by 21.6 percent compared to the same period in 2024. If these trends continue, 2025 could see the lowest murder rate ever recorded.
- After peaking in 2009, **the US prison population has fallen by more than 400,000 and could shrink by another 600,000 over the next decade**—cutting the incarceration rate by 60 percent from its peak. The decline reflects decades of falling crime and a demographic shift, as fewer young people enter the justice system and older cohorts age out of criminal behavior.

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The New Nuclear Energy Resurgence

Ideology is finally giving way to realistic energy goals.

ZION LIGHTS
JUN 28, 2025

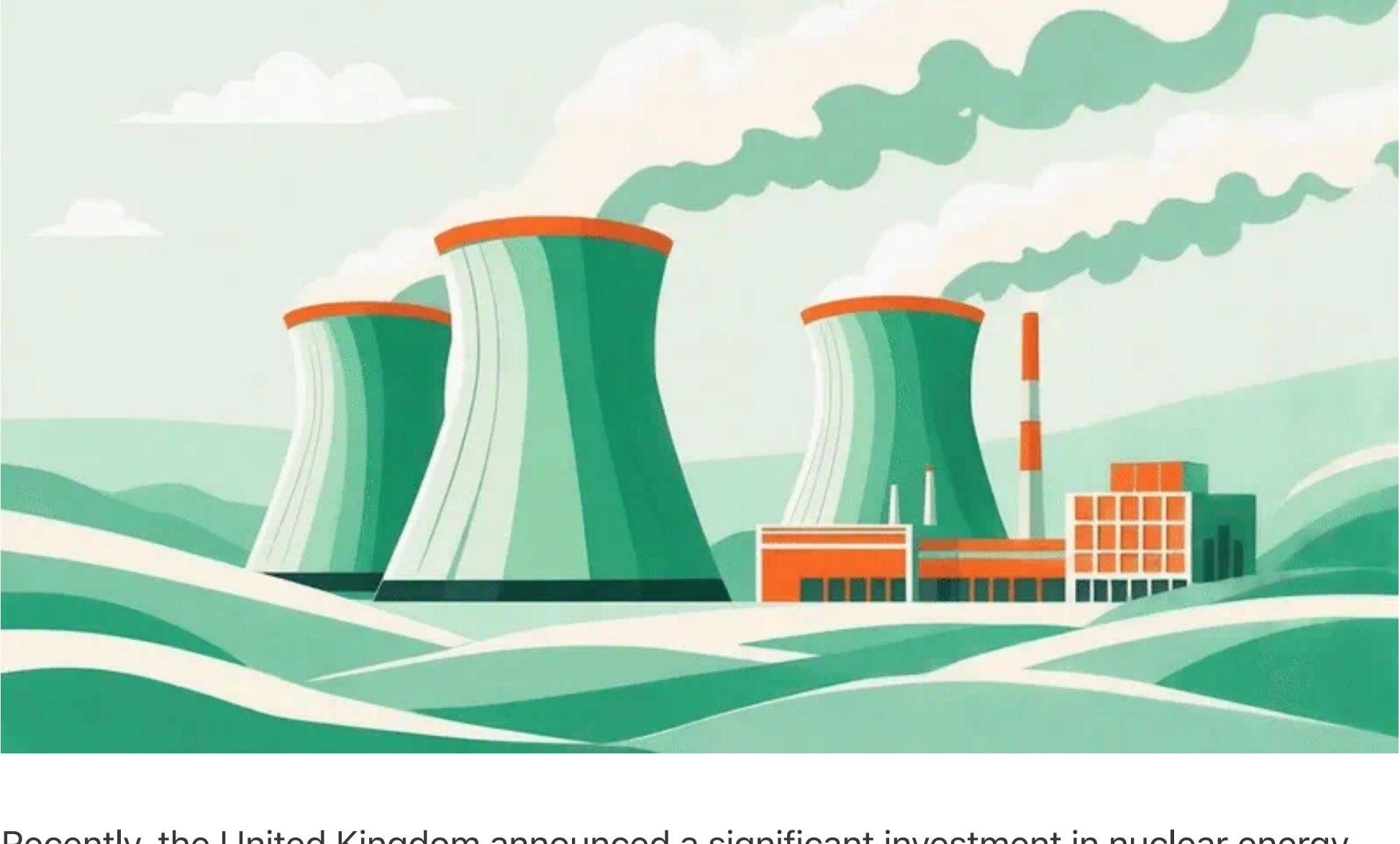
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Recently, the United Kingdom announced a significant investment in nuclear energy—the largest in a generation. Support for nuclear power in Britain has been steadily growing for years, with both major political parties backing it. However, there has been little concrete commitment to new nuclear development for decades. That changed with the government’s [announcement](#) of a comprehensive nuclear investment package, which includes funding for the new Sizewell C nuclear power station, expansion of the nuclear submarine industrial base, support for small modular reactors (SMRs), and increased investment in fusion energy research and development. The government also selected Rolls-Royce to lead its SMR program, highlighting a strategic move to boost domestic nuclear manufacturing and innovation.

In the same week, the World Bank [approved](#) funding for nuclear energy projects, lifting a ban that had been in place since 2013 and signaling growing international financial support for nuclear development as a key component of the clean energy transition.

For years, nuclear energy has been at the heart of a fierce global debate. Advocates of the abundance movement have long argued that nuclear energy is an essential tool for decarbonization that has been unfairly maligned as a dangerous relic of the past. In contrast, the traditional “environmental” movement has heavily opposed nuclear energy, shifting its arguments over time but consistently resisting nuclear power on ideological or precautionary grounds.

However, recent years have brought a noticeable shift in the political and public discourse. As the real-world challenges of achieving net-zero emissions while maintaining reliable energy supplies become more apparent, governments are increasingly recognizing what many energy experts have said for decades: a 100 percent renewable energy system is not currently viable. Wind and solar power are intermittent, which means they require a dependable baseload energy source, and if that baseload isn’t coal or gas, it has to be nuclear.

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The shift in attitudes is increasingly evident. Some of the world’s most industrialized nations are now reversing course after years of anti-nuclear policies that have been shaped more by ideology than by technical or environmental realities. Germany stands as the most prominent example. In the wake of the 2011 Fukushima disaster, then-Chancellor Angela Merkel, in alliance with the Green Party, committed to a complete nuclear phaseout. The move was widely celebrated by environmental activists and was seen as a moral and precautionary stance.

However, the long-term consequences of this decision have sparked growing criticism. Since Germany’s last nuclear reactor was shut down in 2023, *Energiewende*—its plan to rely entirely on wind and solar power—has proved deeply flawed. Despite the policy’s pro-environmental intentions, it has left Germany heavily reliant on coal and imported natural gas. This dependence has compromised both its climate goals and its energy security, exposing the risks of phasing out nuclear energy without viable alternatives for reliable, low-carbon baseload power.

In a significant political turning point, Germany’s new chancellor, Friedrich Merz, publicly [acknowledged](#) that shutting down the country’s nuclear power stations was a strategic mistake. That admission marks a notable departure from past orthodoxy and signals a broader re-evaluation of energy policy in one of Europe’s most influential nations.

Just a day after being confirmed as chancellor, Merz took a historic step that signaled a major shift in European energy politics. He ended Germany’s decades-long opposition to nuclear power within the European Union by aligning with French President Emmanuel Macron and agreed that Germany would no longer lobby against nuclear energy at the EU level. That marked not only a dramatic change in Germany’s stance but also a breakthrough in a long-standing Franco-German rivalry that had shaped the EU’s fragmented approach to nuclear policy for years.

For the first time, the EU may be on the path to a unified position on what constitutes clean energy, paving the way for a more practical, collaborative energy strategy across the continent.

Belgium, too, has [reversed](#) its planned nuclear phase-out. Originally slated to shut down all nuclear power by 2025, the Belgian government announced a policy shift in 2022 to extend the life of its two youngest reactors following what had transpired in Germany. Faced with soaring energy costs and rising carbon emissions, Belgium recognized that existing nuclear infrastructure offers a low-carbon, reliable source of power that cannot be easily replaced by intermittent renewables like wind and solar energy alone.

The tide has also turned in the United States. In a significant policy shift, President Donald Trump has [issued](#) a series of executive orders aimed at revitalizing the US nuclear energy sector. The directives instruct the US Nuclear Regulatory Commission to expedite the licensing process for new reactors, reducing approval timelines from several years to under 18 months. The Department of Energy and the Department of Defense are also expected to collaborate on constructing nuclear plants on federal lands, streamlining the permitting process, and leveraging existing infrastructure.

To support these initiatives, the administration is focusing on reinvigorating domestic uranium production and enrichment capabilities, aiming to reduce reliance on foreign sources and strengthen the national energy supply chain. These efforts underscore a renewed commitment to nuclear energy as a cornerstone of the United States’ clean energy strategy.

Yet while some nations adapt, others remain entrenched in outdated anti-nuclear stances. Australia, despite its vast uranium reserves and strong scientific expertise, continues to ban nuclear energy outright. The debate is often dominated by fear-based rhetoric, with politicians [emphasizing](#) cartoonish imagery reminiscent of *The Simpsons* rather than engaging with real-world data on modern nuclear safety. Decades of cultural and political opposition have deeply embedded anti-nuclear ideology in public discourse, stifling serious, evidence-based conversation.

Similarly, Spain has committed to phasing out its nuclear fleet by the mid-2030s, another decision driven more by political symbolism than by practical energy planning, and one that has sparked [protests](#) from Spanish nuclear workers.

Meanwhile, China is moving full speed ahead. Not content with simply expanding its fleet of conventional pressurized water reactors, China is investing heavily in advanced nuclear technologies, including SMRs and thorium-based molten salt reactors. Thorium reactors have long been considered a potential game changer due to their inherent safety features and the abundance of thorium, but the technology has been largely neglected in the West, despite the fact that the United States first developed a thorium reactor in the 1960s.

Building on this earlier research in the United States, China now [claims](#) to have developed a functioning thorium reactor. If this is true, it would be a groundbreaking development for clean energy, as thorium not only is plentiful but also enables an energy-making process that is cleaner and safer than current nuclear technologies. If China’s pilot programs succeed, the country could leapfrog existing nuclear systems and secure a leadership position in next-generation clean energy. The West still has some catching up to do in this area.

This divergence in global nuclear policy underscores a growing divide between those who see nuclear power as a necessary partner in decarbonization and those who continue to view it through the lens of Cold War–era fears and post-Fukushima trauma. The new nuclear resurgence is not just about technology but about political courage, scientific realism, and a willingness to confront uncomfortable truths. As more countries face the limits of trying to reduce emissions with wind and solar power alone, they will have to choose between ideology and climate pragmatism.

The future of nuclear energy is beginning to look not just viable but essential. Around the world, political leaders are reevaluating past decisions and recognizing that decarbonization without nuclear energy is, at best, a distant hope. A new global consensus is emerging: Nuclear power offers unmatched energy density, reliability, and a carbon-free footprint—qualities that intermittent renewables alone cannot replicate. After decades of delay, nuclear energy is no longer relegated to the energy of the past but understood to be the backbone of the future.

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Neonatal Suffering: How We Came to Care Through Data

Evidence-based medicine gives a voice to the voiceless.

CAMILLE MINER

JUN 24, 2025

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Millions of newborns or “neonates” worldwide undergo invasive surgeries in their first 28 days of life. These infants are quickly put on operating tables and cut open, tubes inserted into their bodies, scalpels, and forceps probing and manipulating their organs after just entering the world. And for decades, these newborns were conscious of their pain. For the sake of successful surgeries, neonates were often given muscle relaxers to paralyze their resistance, but they still felt the sensations of scalpel incisions, open heart surgery, and chest tube insertions.

Prior to the 1980s, it was a common misconception that newborns or “neonates” did not experience severe [pain](#). Medical experts relied on outdated theories suggesting that newborns couldn’t experience pain due to memory limitations and because their cerebral cortex had not yet undergone [myelination](#), the process through which nerve fibers develop the capacity to rapidly transmit pain signals. General anesthesia to fully numb the neonate from pain was considered too risky for infants at the time, making experimentation unjustifiable for most researchers.

Countering this myth, in 1987, Dr. K.J.S. Anand and Dr. P.R. Hickey [found](#) that infants who undergo operations without anesthesia reported severe stress responses with steep spikes in cortisol and adrenaline levels. In their study, neonates expressed complex behavioral responses, which proved that the infants’ attempts to resist or avoid pain when not sedated were not mere reflexes. Dr. Anand later [ran a randomized trial](#) on neonates given fentanyl and found that neonates who were given no fentanyl anesthetic not only endured severe pain but suffered from “circulatory and metabolic complications postoperatively.”

Later, in 2010, scientists discovered that the nerve endings they previously thought could not communicate pain to the brain prior to myelination [were signaling pain](#) in neonates, but at a slower rate. More progress in this field is expected to continue as studies in [local and regional anesthetics](#) show that such treatments lower neonatal overdose risks and reduce opioid use.

In 1987, the [American Academy of Pediatrics](#) deemed neonatal operations without local anesthetic unethical, and US medical practices shifted to implement neonatal anesthetic. It may seem easy to assume that the medical community must not have considered them sentient beings worthy of painless procedures. However, experimenting with infants and fentanyl is not without its risks. Thus, doctors had reason to perpetuate tradition and old expert practices of anesthetic-free procedures, even if at the cost of infant suffering.

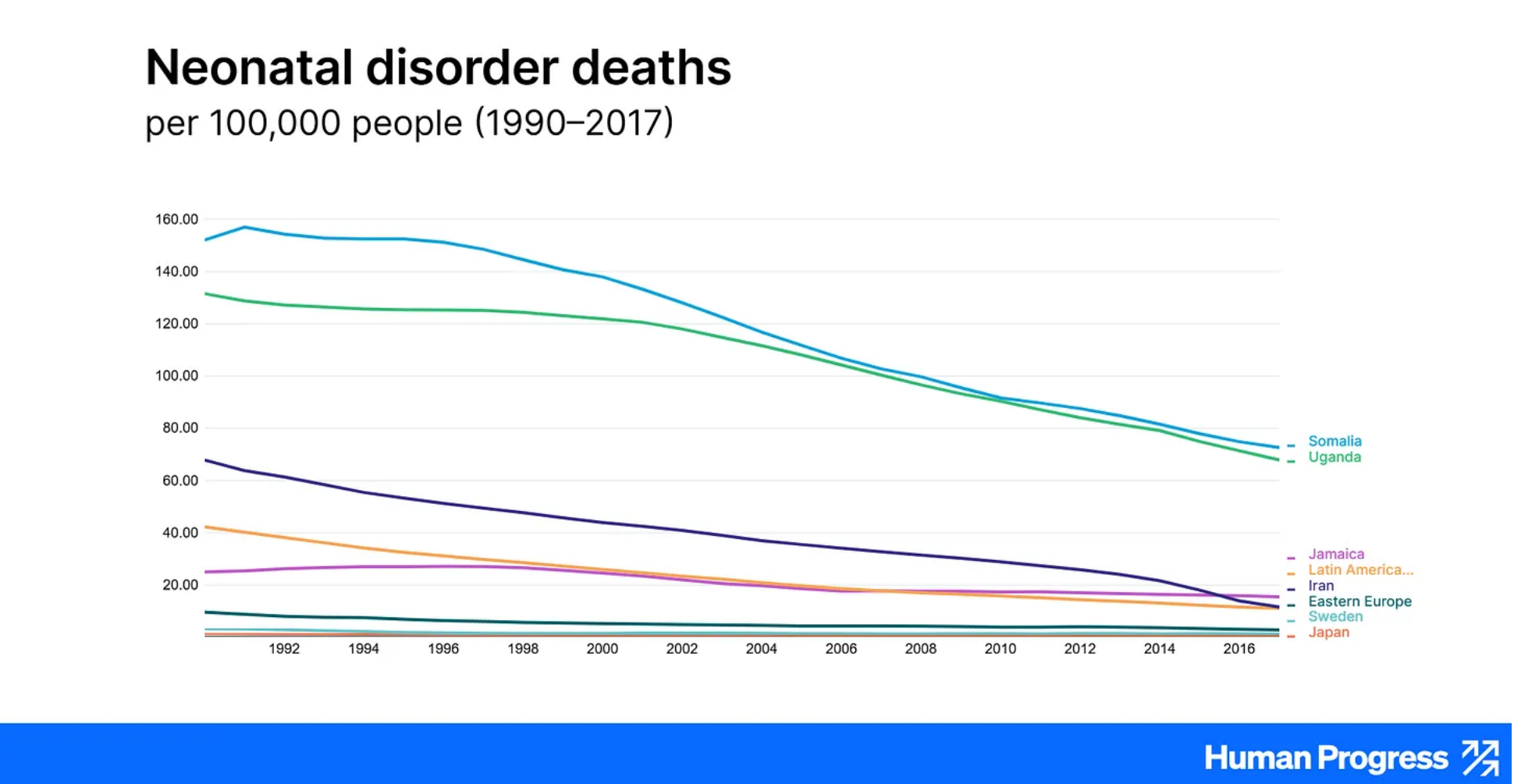
The true impetus for change in neonatal treatment was not mere compassion but a transformative paradigm shift in medical practice. While clinical research was not new to medicine, previously, doctors [often favored](#) expert opinion by the doctors with respected practice and reputation. However, doctors like Dr. Gordon Guyatt of McMaster University made a formal push in the 1990s for “[Evidence-Based Medicine](#)” ([EBM](#)), which “de-emphasizes intuition, unsystematic clinical experience, and pathophysiologic rationale as sufficient grounds for clinical decision making and stresses the examination of evidence from clinical research.” Put another way, the opinions of individual doctors would not take precedence over evidence-backed medical research.

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The previous reliance on expert opinion created biased data and [a lack of standardization](#) for procedural techniques and diagnoses. Thus, a doctor in California could perform hernia repair surgery in a technique radically different from a doctor in New York. But, as the EBM movement [advocated](#), it is unlikely that two differing procedures have identical success rates. After realizing the benefits of prioritizing systematic reviews/meta-analyses, cross-sectional studies, and randomized control trials over the experiences of seasoned doctors, the medical community was capable of greater safe experimentation and findings. Additionally, with the onset of digitized medical records, tracking medical data over time is much faster and cheaper. Thanks to the efforts of clinical researchers and evidence favoring doctors, we live in a world filled with data and research capable of tailoring high-risk anesthetics to the infants who just entered our world.

Over the past four decades, the use of anesthesia for newborns has become more standardized in all developed countries. Furthermore, with the globalization of medical knowledge, more low and middle-income countries [have access](#) to advanced anesthetic treatments capable of safely sedating infants and preventing severe pain in operations. Digitization of medical records, remote training, and the standardization of best practices have together increased global access to neonatal anesthesia.



Furthermore, according to the [Institute For Health Metrics and Evaluation](#), newborn deaths preventable by neonatal surgery (e.g., congenital defects and birth trauma injuries) have also been on a steep decline since the international standardization of medicine and the onset of global health initiatives. On the whole, neonatal disorder deaths are steeply declining. That’s partly a consequence of surgery—now with safe neonatal anesthetic. With more advanced medical practices and anesthetic procedures now shared with and adopted by developing countries, global inequality in infant welfare overall is decreasing.

This transformation in neonatal concern not only represents our increased sensitivity to human suffering but also demonstrates how valuing empirical research enables us to identify and prevent such harm.

Author: Camille Miner, a rising senior at UC Berkeley studying Philosophy and Social Welfare and a Research Intern at Human Progress.