extra time and fuel this requires increases costs and eats up shipping capacity. *The Economist* estimates that the bill, some of which is passed on to consumers, amounts to $175bn a year.

What to do? Although the Houthis may pause following the Gaza ceasefire, their ability to threaten ships will remain. Any "maximum pressure" campaign against Iran by Donald Trump could affect the Houthis, who rely on Iranian missiles and Iranian and Russian targeting information. Still, America is not a big user of the Suez Canal, so Mr Trump's appetite for pursuing the Houthis directly may be limited. Besides, no one has yet identified an effective aerial and naval strategy against them and a ground invasion of Yemen is out of the question.

Yet even if Iran were to disown them, the Houthis would have good cause to continue the extortion and the money to buy the weapons they need. They could also threaten other targets, including the oil-rich Gulf states. Hence, if Mr Trump turns a blind eye to the Houthis, other countries in Asia, the Middle East and Europe may eventually follow China and pay the Houthis protection money despite also paying lip service to the principle of freedom of navigation.

That would hardly break the world economy, but it would reshape it. A permanent tail-risk would become embedded in financial and shipping markets as investors factored in the possibility of a total closure of the Suez Canal or Houthi strikes on other targets in the region. There would be an enduring loss of efficiency. And market shares in shipping would shift as Western firms lost business to vessels carrying the flag of China or other rule-breakers.

Businessmen or believers?

Similar trends are discernible as other industries, including air travel, are reshaped by swirling geopolitical risks. The Houthis have discovered that the world is unwilling to work together, although the costs of inaction are high. Indeed, they have been so successful at exploiting collective inertia that other militias may pay them the compliment of imitating them. ■

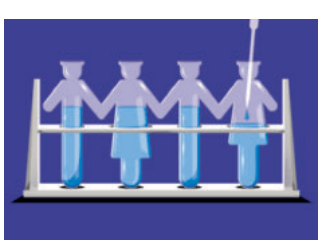
Medicine

Moving the needle

To improve clinical trials, companies need a wider variety of people to take part

LAST YEAR Roche, a Swiss pharmaceutical firm, published a review of the clinical trials on neurological drugs it had held between 2016 and 2021. It found that black people were under-represented in all but one. Surprisingly, that news represents progress, because it shows that trial organisers are becoming more aware of a dangerous bias that sets back the safety and efficacy of medical treatments.

Many trials exclude certain groups, and do so deliberately—children, for example, or people with physical or learning disabilities, pregnant women and the elderly. For such groups, participation has stalled or even reversed. There are good explanations for the exclusion, such as the difficulty of getting informed consent or the potential harm to unborn children.



Yet the consequences can be absurd. A recent review found that half of trials around the world testing hip-fracture interventions excluded people who lived in nursing homes, were old or had some level of cognitive impairment. Though these groups make up almost a third of all patients suffering hip fractures, it is unclear if the interventions will work as safely or as effectively on them. Their doctors face an invidious choice: prescribe anyway, with uncertain results; or deny their patients new treatments.

A shocking example of such exclusion is of people with Down's syndrome (see Science & technology section). They have long been left out of clinical trials, including recent trials of lecanemab and donanemab, the first drugs against Alzheimer's that seem to slow the progress of the disease. This is despite the fact that those with Down's are highly likely to develop it. Yet without data from trials, doctors will not prescribe them the drugs, for fear of unknown side-effects.

Obtaining informed consent for trials is not always easy, especially from people with learning disabilities or dementia. Accounting for different groups' risks of side-effects can complicate the analysis of the data. And some groups mistrust doctors because of a history of mistreatment, which makes recruiting them harder.

Even so, broadening the range of trials' participants can be practically useful, because they may lead to new medical insights. Running trials on people who are more likely to develop Alzheimer's, such as those with Down's syndrome, might help researchers test whether their drugs work preventively.

Something like that happened with the Dallas Heart Study in the 2000s. As a large piece of epidemiological research, it included an ethnically representative sample of people and found a genetic variant in some African-Americans which was correlated with 40% lower bad cholesterol. That gene is now one of the foremost drug targets in the fight against cardiovascular disease.

Fortunately, the bias of clinical testing may be changing. Almost half of trial participants in America are now women (in the rest of the world it is still only 40%). America and Britain look likely to publish regulations that require trial organisers to explain whom they ought to include and how they plan to recruit them.

The drug and medical-device industries are likely to object. Companies may fret about the speed and cost of broad-based trials. During the covid-19 pandemic, Moderna slowed down its vaccine trial because its recruiters, a private contractor, had not enrolled enough subjects from ethnic minorities. In that time, millions contracted the virus.

The trade-off almost always favours efficacy. A pandemic on such a scale is very rare. As broad-based trials become the norm, they will be easier and faster to set up. Firms are rightly granted valuable monopolies as a reward for financing the research needed to discover successful drugs and bring them to market. A quid pro quo should be that the trials which lead to those monopolies reveal who will benefit and by how much. ■