

1 **In Praise of Human Guinea Pigs**

2 Before the 20th century, the sick were wise to stay away from doctors. Medical **treatments** were often
3 **worthless** and sometimes dangerous. Treatments such as blood-letting and purging often killed. It was the
4 discovery of micro-organisms, vaccines and antibiotics that **eventually equipped** doctors with weapons
5 that **attacked** diseases, not patients. But as many lives may have been saved by a more recent **innovation**,
6 the randomised controlled **trial** (RCT). The idea is simple, yet brilliant. A new treatment is tested by giving
7 it only to some randomly chosen patients, with the rest (the “controls”) **receiving** standard care. Before
8 RCTs became common in the 1950s it was easy for a doctor to believe that patients who died did so
9 **despite** his best efforts, while those who survived **owed** him their lives. He might harm patient after patient
10 and never identify the **pattern**. Now almost all medicines are tested with RCTs before being widely
11 **prescribed**.

12 What works in the fight against disease can also work in the fight against poverty. In the past decade aid
13 organisations and governments in the developing world have been making use of RCTs, **encouraged** by
14 donors and philanthropists who like **evidence** that their cash will be spent well. This week two leading
15 researchers **released** the **results** of RCTs for two schemes that gave very poor people assets (usually goats
16 or a cow) and trained them to manage them. The results were impressive: in India **recipients** were much
17 better off five years after the programme ended. More importantly, the trials showed that it really was the
18 aid programmes that made the difference, and not some other **factor**.

19 RCTs have their **limitations**. They are impossible when an intervention affects everyone (for example, a
20 change in interest rates) and unethical when it is known to be **harmful** (doctors who want to know just how
21 unhealthy smoking is cannot ask human guinea pigs to smoke). But the biggest problem with RCTs is that
22 they are not used nearly often enough.

23 Even as policymakers in developing countries **harness** the power of randomisation, those in rich countries
24 are **resisting**. There are about 100 education-related RCTs in Britain but they deal with less important
25 questions, such as whether teenagers learn more if the school day starts later. Meanwhile the government is
26 radically reshaping the management and **funding** of schools nationwide—without testing the changes first,
27 let alone running trials. That is reckless.

28 Other countries have done a bit better. An RCT run decades ago affected the design of America’s main
29 housing programme. More recently, experiments have tested the **impact** of smaller classes, charter schools,
30 sex education and pre-school for poor children. But just as in Britain, RCTs are **rarely** used to **evaluate** big
31 policy shifts. The Affordable Care Act, introduced as part of Obamacare, could have been an **opportunity**
32 for a series of trials to optimise its rules. That opportunity was missed.

33 The electoral cycle is one reason politicians dislike RCTs. Evaluation of a new policy often takes years;
34 reformers want results before the next election. Most politicians are already **convinced** of the wisdom of
35 their plans and see little point in spending time and money to be proved right. Sometimes they may not care
36 whether a policy works, as long as they are seen to be doing something. Tough prison sentences make a
37 government look tough even if they do not cut crime; very high taxes on top earners may be popular even if
38 they **raise** no extra cash.

39 Doctors, at least, **generally** want to do some good. Even so, they were slow to adopt RCTs. Many felt these
40 trials **questioned** their professional judgment, or worried about the ethics of **denying** randomly selected
41 patients a promising new treatment. They were convinced only by seeing many **established** treatments
42 proved to be harmful, and promising new drugs proved to be useless. Now doctors regard RCTs as the gold
43 standard of evidence.

44 To live in a modern democracy is to be experimented on by policymakers from cradle to grave. Education
45 is intended to shape a good future citizen. A prison sentence should reshape someone who has gone wrong.
46 But without evidence, those setting **policy** for schools and prisons are little better than a doctor relying on
47 leeches and bloodletting. Citizens, as much as patients, deserve to know that the treatments they **accept** do
48 actually work.