EDITOR'S CHOICE

Telehealth: only part of the solution

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Science has an annoying way of not finding what you were hoping for. Governments that try to do the right thing, by evaluating innovations before rolling them out, may well get frustrated when the studies they have funded take time to reach a conclusion, when journals take time to peer review and publish them, and especially when the published findings aren't clear cut or compelling.

Such is the case with the UK government's three and a half year, £30m evaluation of telehealth and telecare. The world's largest trial of remote exchange of clinical data between patients and health professionals recruited people with diabetes, chronic obstructive pulmonary disease, and heart failure from 179 general practices in England and encouraged them to measure such things as their blood pressure, lung function, and blood glucose and asked them to respond to symptom questions and educational messages. The trial's initial findings were published in June in the *BMJ* (doi:10.1136/bmj.e3874) and are summarised in this week's print journal (p000). As Jonathan Gornall explains (doi:10.1136/bmj.e4622), they don't quite live up to the Department of Health's premature and glowing announcement of the "headline findings" six months ago—that telehealth will save many lives and a great deal of money. The announcement concluded with plans to collaborate with industry to roll out telehealth across the NHS.

The trial's actual findings were more nuanced. Although there were reductions in hospital admissions and mortality, these and the potential cost savings were modest, say the authors. "The magnitude of the group difference in admission proportion was small ... raising questions about the clinical relevance," says the full report on bmj.com. The authors counsel caution, saying that the positive findings could have arisen by chance. At 3.7%,

the absolute reduction in mortality was rather less compelling than the 45% relative reduction flagged up by the Department of Health.

This is, nonetheless, good news, representing 59 lives saved among over 3000 patients who were followed for the 12 months of the study. But as Josip Car and colleagues say in their linked editorial, it needs a plausible explanation (doi:10.1136/bmj.e4201). Without knowing how this was achieved, it will be hard to replicate.

The findings also need to be placed in context, they say: "Telehealth does not just 'work' or 'not work.'" Its success depends on many factors: the type of technology, the patient's condition, the clinical and social context, and whether clinicians are willing to get involved. As reported by Gornall, failure to get doctors on board partly explains why only 500 of 500 000 eligible patients have been enrolled in a telehealth initiative in north Yorkshire.

Above all, if we are to see benefits we have to think bigger and more "disruptively" than just the introduction of a device into a patient's home. "It's a question about service redesign, not technology," said the trial's lead investigator, Stanton Newman, speaking at a seminar last week (doi:10.1136/bmj.e4633). Or as Jennifer Dixon, another of the authors, says in Gornall's report, "What our findings partly indicate are that if you take telehealth and just plant it into what is usual NHS care, that's not enough. You have to make it unusual NHS care, you have to do something different to get the full benefit of telehealth."

Cite this as: *BMJ* 2012;345:e4724

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