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Polio vaccination in Pakistan

Syed Hussain and colleagues (April 18, p 1509)¹ praised the Pakistani Government for arresting parents who refused poliovirus vaccination for their children, calling it a bold move to address the serious issue of polio in Pakistan. This statement gives the impression that parental refusal of child vaccination is the main reason for the failure of polio campaigns in Pakistan; however, this is not the case. Of 34.7 million children targeted for vaccination in March, 2015, only 33 695 (<1%) children were missed because of their parents' refusal. Roughly 33.6 million (79%) children were vaccinated, whereas the remaining children (20%) were missed mainly because of security issues, such as death threats from militant groups who perceive polio vaccination campaigns as a cover to serve the intelligence purposes of the Central Intelligence Agency.²

We believe that Hussain and colleagues ignored important considerations. First, most of the parental refusal is because of their religious misconceptions about vaccination and distrust in government officials.² Moreover, with the arrest of citizens, no evidence exists to confirm that parents' beliefs about vaccination can be changed and their trust in the government regained. Second, some of the people arrested for refusal of polio vaccination were still single and had no children,³ and some people did not refuse polio vaccines for their children. We believe that arresting people for refusal will not help them

to understand the gravity of the issue, rather thoughts against the state will breed in arrested parents and might further strengthen their misconceptions towards polio vaccination. Third, the security of the general population and polio vaccine workers seems to be a much bigger problem.² Lastly, the effectiveness of used vaccines is also a concern because in February, 2015, a Federal Investigation Agency sealed 11 800 vials of spoiled polio vaccines in the National Institute of Health, Pakistan.⁴

The Pakistani Government should provide security to the public and the polio vaccine workers. Evidence-based approaches should be adapted to change the misconceptions of parents.⁵ Government officials should launch the campaign with full dedication and honesty, since previous campaigns have been dented by political corruption and mismanagement.⁶ These are the bold moves that are needed to liberate Pakistan from polio.

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Against age discrimination

Representatives of the European Union Geriatric Medicine Society (EUGMS) in conjunction with Members of the European Parliament devoted to issues in care of elderly people would like to express a strong statement against ageism around the UN formulated Sustainable Development Goals (SDGs) for 2030.¹ According to basic fundamental rights, age, sex, or ethnic background are not well founded or justified grounds to put anyone in a less favourable position. A solid basis exists for prevention and treatment of disease (geriatric medicine) in people aged 70 years or older.

The third goal in the SDGs aims to ensure healthy lives for all at all ages. Paragraph 3.4 further states that by 2030, premature mortality from non-communicable diseases should be reduced by a third through prevention and treatment. This goal is truly supportable and includes people of all ages.¹ The benefits of preventive actions against premature deaths can also be reaped by elderly people because early prevention of obesity and treatment of hypertension and hypercholesterolaemia would ensure that people entering old age are healthy.

The analysis by Ole Norheim and colleagues² reported that reaching these goals was feasible. However, setting an age limit (<70 years) for prevention and treatment actions has raised concerns that elderly people will be neglected, and focus will be predominantly put on people younger than 70 years.³

Although death is unusual in young people and normally arrives





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later in life, geriatric medicine is not synonymous with palliative medicine, and curative (but also preventive) actions are often possible.⁴ Non-frail individuals make up a substantial proportion of people aged 70 years or older and their treatment results for diseases such as cardiovascular diseases and cancer do not differ from those who are younger. In pre-frail and frail individuals, good results are often obtainable with individualised treatment, but this is clearly an area where more research is needed.

If preventive actions at young ages are increasingly successful, we will also have healthier elderly people in the future than we do now; this notion is important for the extrapolation of Goal 3.4. In the meantime, we need geriatric medicine for the increasing number of people aged 70 years or older who have chronic disorders. The proper treatment of these elderly people is a human rights issue, but geriatric medicine is also effective to promote functionality and wellbeing, giving more life to years lived.

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For members of EUGMS see appendix

See Online for appendix

Is crowdfunding a viable source of clinical trial research funding?

As public research grants for randomised controlled trials (RCTs) have diminished and become increasingly competitive, researchers have to search for alternative funding sources. Crowdfunding, in which projects are funded directly from the public through the internet, might represent a potential source of RCT funding.¹ However, whether or not crowdfunding campaigns for clinical RCTs are successful is unclear.

To explore the success of research crowdfunding campaigns, we assessed the top online (based on site volume) English crowdfunding websites: Gofundme, Indiegogo, Kickstarter, Teespring, Patreon, YouCaring, CrowdRise, DonorsChoose, Kiva, and Giveforward. Additionally, we examined medical research crowdfunding websites: Experiment, Consano, Petridish, and Cancer Research UK. We (AS and JK) independently searched these crowdfunding websites using the following search terms: "clinical study", "randomized clinical trial", and "research". We also independently established whether a campaign met our eligibility criteria of funding for a clinical RCT that was led by an academic or research institution. A consensus process to resolve disagreements was established.

20 campaigns met our eligibility criteria (Cohen's $\kappa=0.88$; appendix). Eight (62%) of 13 completed campaigns achieved their fundraising goals. Unsuccessful campaigns raised 1–6% of the funding sought. Five (63%) of eight campaigns that reached their funding goals were for pilot or phase 1 studies. 19 (95%) of 20 campaigns used a flexible model (ie, researchers kept all the funds raised) compared with a fixed model (ie, researchers kept the money only if the target was met). The maximum

funds raised were US\$3 113 000 (£2 000 000) for the Oncolytic Virus for Patients with Neuroendocrine Tumours study. Although details were restricted, most research projects seemed to have had some funding from other sources.

Our research suggests that most crowdfunding campaign funding targets are achieved. Crowdfunding might represent an effective option to rapidly raise research funds to do RCTs. Even unsuccessful campaigns were able to raise some funds, albeit a small percentage of their target goal. This strategy might be especially useful for pilot or phase 1 studies because funding from national public agencies is insufficient. Further research with crowdfunding is needed to establish strategies that maximise the likelihood of success.

PJD has used crowdfunding (Indiegogo) to support clinical research. AS and JK declare no competing interests.

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Legal preparedness and Ebola vaccines

On Dec 9, 2014, US Secretary of Health and Human Services Sylvia Burwell issued a declaration¹ under the US Public Readiness and Emergency Preparedness Act to provide immunity from legal claims in the USA related to manufacturing, testing, development, distribution, and administration of three candidate Ebola vaccines except in instances of wilful misconduct. Although progress in combating Ebola in west Africa has shifted public attention away from vaccine