Ending racial and ethnic health disparities in the USA

The US Department of Health and Human Services (HHS) on April 8 published a report entitled *HHS Action Plan to Reduce Racial and Ethnic Health Disparities*. The document is the result of meetings held nationwide by HHS in which federal officials discussed with state officials and community groups about how to best address health inequalities. The report outlines goals and actions that HHS will take to reduce and eliminate racial and ethnic health disparities in the USA. With this report, the US Government officially acknowledges the existence of health and health-care disparities between the country's ethnic minority populations and white Americans.

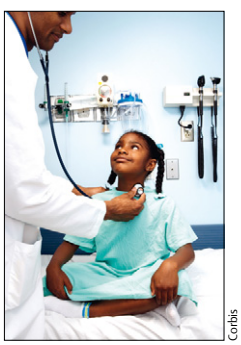
The health of ethnic minority populations has consistently lagged behind that of whites in the USA. Although racial and ethnic minorities represent a third of the US population, more than half of the country's 50 million uninsured citizens are from ethnic minorities. This lack of access to care is a big part of the health disparity gap. First, it makes preventive care almost non-existent among US ethnic minorities. In fact, the rate of preventable hospitalisations for minorities is double the rate observed for whites. Second, it makes ethnic minorities have poorer quality of care. For example, African-Americans are a third less likely to have bypass surgery than are whites, and African-American children are much less likely to receive asthma drugs than are white children. Third, it makes ethnic minorities have poorer overall health and experience more severe forms of serious illness (such as heart disease, diabetes, kidney disease, and asthma), which shortens their life expectancy. Cardiovascular diseases, for example, account for the biggest proportion of inequality in life expectancy between African-American and whites. And a recent report from the US Centers for Disease Control and Prevention stated that African-American, Hispanic, Asian-American, American-Indian and Alaskan-Native populations have higher mortality rates than do US whites.

The lack of access to care and low quality of care in minority populations is, most disturbingly, also reflected in infant outcomes. In the April issue of *Obstetrics & Gynecology* and online on April 14 in *The Lancet*, Catherine Spong and colleagues from the US National Institute of Child Health and Human Development convey that racial and ethnic disparity in infant mortality, stillbirths, and preterm births in the USA have remained remarkably consistent the past 50 years. Stillbirth rates in African-Americans, for example, are double the rate of whites, and infants born to African-American women are 1·5 to three times more likely to die than are infants born to non-African-American women.

Another problem, highlighted in the HHS report, is that 24 million adult Americans have limited English proficiency. This makes the 15-min doctor's consultation often less effective, which can result in harm to the patient and increase health-system costs. It also creates a system in which minority populations are not reached, informed, or encouraged to seek preventive measures or medical treatment. In response, the HHS plans to: create an online national registry of interpreters that hospitals and doctors would use when dealing with patients who do not speak English; involve trusted local people (*promotoras* in Spanish) to act as community health workers who would help patients to navigate the system and adhere to treatments; and recruit and train more people from minority populations into medical and public health professions. According to the American Association of Medical Colleges, in 2008, only 6% of US physicians were Hispanics even though 16% of the US population is Hispanic.

What the HHS report did not do was provide a monetary figure for the proposed strategies, which include research grants devoted to the health of ethnic minorities. Additionally, the HHS report only acknowledged the fact that health disparity is a complex issue, closely linked with social, economic, and environmental disadvantages, without giving solutions. The best way to tackle the problem is through a collaborative effort with other governmental sectors. A big emphasis must be put on education because research has persistently shown its link with overall health. At present, the lowest income US communities consistently have the lowest health determinants and educational scores.

Race and ethnicity must not be a pre-existing health condition in the USA. The USA must offer equal opportunities to all its citizens to reach their full health potential. President Obama's Patient Protection and Affordable Care Act of 2010, together with the present HHS initiative, offers a great start in addressing the needs of US ethnic minority populations. ■ *The Lancet*



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For the **HHS report** see http://www.minorityhealth.hhs.gov/npa/templates/content.aspx?lvl=1&lvlid=33&ID=285

For the **US Centers of Disease Control and Prevention report** see http://www.cdc.gov/mmwr/pdf/other/su6001.pdf

For the **comment in *Obstetrics & Gynecology*** see http://journals.lww.com/greenjournal/Abstract/2011/04000/Disparities_in_Perinatal_Medicine__Preterm_Birth,.27.aspx

For the **comment in *The Lancet*** see **Online/Comment** DOI:10.1016/S0140-6736(11)60025-1

Physician, heal thyself

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For the **Australian Medical Association recommendations** see http://ama.com.au/node/6551

For a **review about physician wellness** see **Review** *Lancet* 2009; **374:** 1714–21

A medical code of conduct is observed in some UK hospitals: if one should recognise a colleague laid up ill, and they are not under one's care, it is considered courteous to ignore them. One can be a doctor, or a patient—one cannot be both. This may or may not be the preferred arrangement for the sick doctor. It is often the most comfortable one for his or her peers.

From the USA comes new research that emphasises the patient–doctor dichotomy. In the *Archives of Internal Medicine* on April 11, Peter Ubel and colleagues reported findings from a survey of primary care physicians. In two scenarios, doctors were asked to pick a treatment for either themselves or their patient. Whereas the doctors surveyed would advise a patient to receive a treatment with a lower mortality rate and a higher probability of adverse events, they would choose the opposite for themselves. There is something going on here, and it is more than the usual human phenomenon of it being easier to give sound advice than to take it.

Separation of the roles of doctor and patient is a time-honoured and necessary part of medical practice. Doctors can even be seen as separate to the mainstream of humanity in general. In *Colonel Chabert*, Honoré de Balzac places them, along with priests and lawyers, as a group apart, "in mourning for every virtue and every illusion". Yet ill health makes no such distinction. Professional bodies have become increasingly aware of the need to remind doctors that they, too, are mortal. The Australian Medical Association's recent position statement on the Health and Wellbeing of Doctors and Medical Students is the latest example of this welcome trend. Every doctor will one day be a patient. Bearing this in mind could help doctors to manage the expectations of those under their care and give appropriate advice. It might also help doctors to be kinder to themselves. ■ *The Lancet*

Tackling cancer and heart disease in people with HIV/AIDS

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For the ***JNCI* paper** see http://jnci.oxfordjournals.org/content/early/2011/04/11/jnci.djr076.abstract

In a study, published on April 11 in the *Journal of the National Cancer Institute*, Meredith Shiels and colleagues highlight the changing cancer burden of people with HIV/AIDS in the USA. In the 1990s, most cancers were of the so-called AIDS-defining variety (eg, Kaposi's sarcoma, non-Hodgkin lymphoma, and cervical cancer). Since then these cancers have decreased by about three-fold, whereas non-AIDS-defining cancers, such as Hodgkin's lymphoma, and anal, liver, lung, and prostate cancer have been increasing in this population. HIV-positive people do have an increased risk for some of these types of cancers through viral co-infection and decreased immune function, but the risk for prostate cancer, for example, is not thought to be different from that of the general population.

With the availability of highly active antiretroviral therapy (HAART), HIV/AIDS has become a chronic disease with markedly improved life expectancy in those on HAART. A substantial proportion of HIV-positive people in developed countries is now 50 years of age or older. This achievement poses new and challenging problems for preventive efforts and treatment of other chronic diseases. People infected with HIV need to be screened for cancers to allow early detection and need to be offered interventions, such as smoking cessation and lifestyle advice, to minimise additional risk factors. Chemotherapy for HIV-positive people who have cancer needs to be carefully chosen and monitored for interactions with antiretrovirals.

As with cancer, the risk factors for heart disease are also a mixture of an increased inherent risk, an increased risk as a result of antiretroviral therapy, and additional lifestyle risk factors, such as smoking. Interactions between statins and antiretrovirals are complex and are different with individual drugs. With increased life expectancy, emphasis on cardiovascular disease prevention will become an important part of the management of patients with HIV/AIDS.

Doctors of different specialties—cardiologists, oncologists, and infectious disease physicians—will have to closely collaborate to give these patients the best possible care. What is largely missing still is robust evidence of drug interactions and best possible combinations. Clinical trials that give answers to the complexity of chronic disease treatment and prevention in people with HIV/AIDS are urgently needed. ■ *The Lancet*

Radial angioplasty: worthy RIVAL, not undisputed winner

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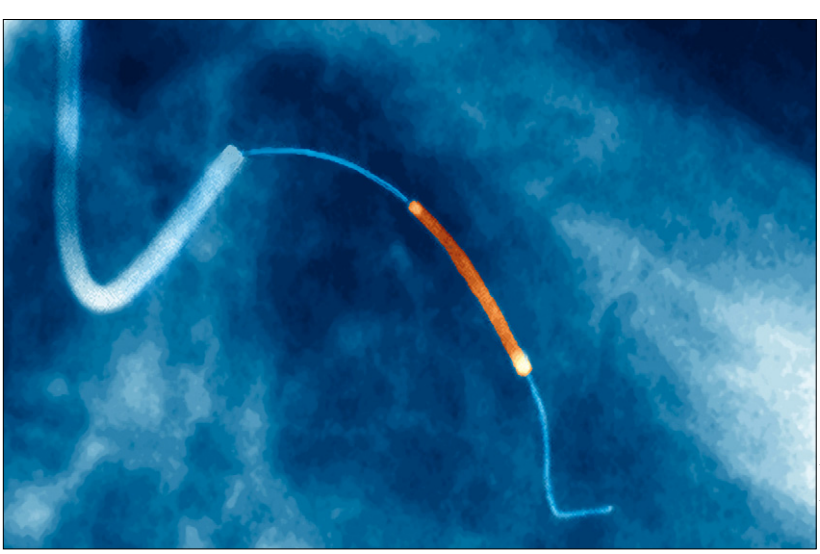
See Articles page 1409

There are few subjects that polarise cardiologists like vascular access for coronary angioplasty does. Since Kiemenij and colleagues[1] introduced the radial approach for day angiography and angioplasty, operators sided into one of the two camps, and blamed the "wrong" vascular access as the main cause of adverse events and failure. Quality and quantity of consistent data never matched the amount of factious quarrelling. As often happens when studies are focused on strategic options rather than on profitable drugs or devices, trials were grossly underpowered and poorly monitored, and thus unable to establish the clinical advantages of the two options. The data indicated that the radial approach reduced bleeding and vascular complications, and allowed early ambulation and discharge. The price was a small increase in risk of crossover to femoral puncture, procedural duration, and radiation exposure, with a variable incidence (up to 7% at 30 days) of loss of radial pulse that was almost always asymptomatic.[2–6]

In *The Lancet*, Sanjit Jolly and co-workers[7] present the randomised multicentre RIVAL trial. The investigators must be commended for designing and completing an ambitious study with a clinically relevant primary endpoint of death, myocardial infarction, stroke, and major bleedings, defined according to strict criteria and with source verification of all these endpoints in the context of the fully monitored pharmacological study CURRENT-OASIS 7.[8] They based their endpoint definition and power calculation on the data from previous trials and meta-analyses, and should not be blamed for selecting goals that proved to be unrealistic. Despite an increase of the sample population from 3831 to 7021 patients, the primary endpoint was not met and the incidence of the combined endpoint at 30 days was nearly identical in the two groups (3·7% transradial *vs* 4·0% transfemoral, p=0·50). A surprising finding, and probably the cause of the failure to show significant differences between the two groups, was the dissociation between bleeding and hard endpoints such as death and myocardial infarction. Acute Catheterization and Urgent Intervention (ACUITY) major bleedings were more than twice higher in the transfemoral group (4·5% *vs* 1·9%, p<0·0001), a result similar to that in the vascular access substudy of the ACUITY trial.[9] But, in ACUITY as well as in many other drug trials of percutaneous coronary intervention in acute coronary syndromes, there was strict correlation between early bleeding and mortality.[10]

The most compelling result in favour of radial angioplasty is the mortality reduction for percutaneous coronary intervention during ST-segment elevation myocardial infarction (STEMI) (combined endpoint of 3·1% in the radial group *vs* 5·2% in the femoral group, p=0·026; mortality 1·3% *vs* 3·2%, p=0·006). The better outcome of radial percutaneous coronary intervention in a primary, rescue, or urgent procedure during STEMI is expected from a previous meta-analysis.[11] During STEMI, a streamlined treatment limited to the culprit lesion with thrombectomy or predilatation (or both) and focal stent implantation is the norm, the drawbacks of a small guiding catheter are minimal, and the potential risk of bleeding after a cocktail of antiplatelet and antithrombotic agents (which may include fibrinolytics, IIb/IIIa inhibitors, or both) is high. Patients with STEMI comprised 1958 of the 7021 total population in RIVAL. With a wide confidence interval of 0·38–0·94 for the primary outcome, the certainty that the reduction of combined endpoint was not a chance finding is not sufficiently robust to give a firm indication in guidelines, but certainly justifies dedicated future trials.

The different outcome in RIVAL according to centre and operators' experience in radial angioplasty is also logical, but the data are less compelling. The worst outcome was seen in the intermediate tertile. This heterogeneous



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Coloured x-ray angiogram of balloon catheter and stent within coronary artery

response is different from the "dose-response" curve expected, so the negative overall outcome of the trial cannot be explained by the inclusion of centres with insufficient experience.

Embedding a meta-analysis (as required by *The Lancet*) in the presentation of a carefully designed randomised trial adds little to the results and obscures the key value of RIVAL. That key value is the robust reality of the contemporary results from RIVAL, rather than the metaphysics of joining together small trials with poor quality control and variable definitions, affected by the major differences in technique and adjuvant pharmacology of the past 20 years.[11–13]

RIVAL is much more credible than pre-RIVAL randomised trials because it involved 158 centres in 32 countries from five continents, with the same high-volume operators (>300 percutaneous coronary interventions a year, 40% on average radial) doing both procedures. The outcome observed can be translated into real-life practice and is not limited, as with previous smaller studies, to a handful of elite centres with committed operators. If we concentrate on the truly new results reported in RIVAL, we find differences in favour of radial angioplasty that are secondary to the statistics but not secondary for clinical relevance, and, vice versa, we understand some persistent disadvantages of this approach. Large haematomas, pseudoaneurysms, and patients' preference were all in favour of the transradial approach. The success rate for the percutaneous coronary interventions was the same but the capricious radial anatomy and spasticity caused more failures than in the femoral group, which was statistically significant for low-volume centres (<140 radial percutaneous coronary interventions a year, 7·0% more crossover than for the femoral approach) and also for high-volume radial operators (2·1% more crossover). A key expected difference which is often invoked to claim greater cost-effectiveness of the radial approach was not confirmed: hospital stay was the same (4·0 days) in both groups, indicating that, in real-life hospital organisation, reimbursement policy and the need to monitor patients with acute coronary syndromes eliminate the potential advantage offered by a more rapid time to ambulation. The amount of contrast used (181 mL radial *vs* 180 mL femoral, p=0·87) was similar. The duration of fluoroscopy was higher in the radial (9·8 min) than in the femoral group (8·0 min), a small difference that was statistically highly significant (p<0·0001) but probably practically irrelevant.

Surprisingly, no additional improvement in outcome with the radial approach was seen in patients with high body-mass index,[14] a generally accepted indication for radial angioplasty and one of the likely causes of its increasing diffusion in the current epidemic of obesity. No data were reported on the incidence of loss of radial pulse, a drawback of the radial procedure caused by the generalised use of excessive prolonged occlusive compression.[4,15]

After this study, there is little justification to ignore one of the main developments in interventional cardiology and stubbornly refuse to embrace a technique likely to reduce minor adverse events (but in patients with STEMI, possibly also major adverse events and mortality) and improve patients' comfort. Especially, operators with a high workload of acute procedures should seriously consider retraining in radial angioplasty, and all new trainees should be taught and become proficient with this approach.[16] Conversely, it is important not to demonise the femoral approach, which is more suitable when large guiding catheters are required and prolonged procedural time is expected for complex lesions, such as chronic total occlusions,[17] some large bifurcations, and diffuse or very calcified lesions.

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We declare that we have no conflicts of interest.

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