



Research



SCIENTISTS BEAT NATURE

While nature is the most elegant designer, in the race for human lives scientists are out to beat her at her own game. By rendering female *Aedes aegypti* mosquitoes - the dengue virus vector - unable to fly, dr. Guoliang Fu et al. may have found a way to limit the spread of a virus that affects up to 100 million people yearly. Currently, there is neither treatment nor a vaccine to protect against the virus. The term genetic modification tends to evoke strong reactions, but the scientists argue that their approach offers a safe, efficient alternative to harmful insecticides which could also be used to stop other diseases caused by mosquitoes, such as malaria. **LH**



ACNE DRUG PREVENTS HIV OUTBREAK

In March this year, John Hopkins' scientists in Baltimore USA, found that the anti-acne drug minocycline effectively targets infected immune cells in which HIV lies dormant. According to this research, minocycline reduces the ability of T-cells to activate and proliferate and ensures that the virus cannot escape the cell; these are both important steps in HIV progression toward AIDS. Minocycline is likely to improve the current treatment regimens of HIV-infected patients if used in combination with the standard drug cocktail cART (combination antiretroviral therapy). **RB**

References

- Acne drug prevents HIV outbreak. Hopkins School of Medicine, March 2010. www.hopkinsmedicine.org
- Scientists beat nature. Proceedings of the National Academy of Sciences of the USA, February 2010, www.pnas.org
- Rwanda: from genocide to astonishing health in sixteen years. WHO, March 2010, www.change.org.
- African Americans receive less protection against cardiovascular diseases. American Journal of Cardiology, February 2010.
- Anti-abortion law kills women. Guttmacher institute, November 2010. www.guttmacher.org


245
321

deaths due to CVD per 100 000 males



25%

of married Kenyan women have unmet needs for contraceptives

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Health policy 

AFRICAN AMERICANS RECEIVE LESS PROTECTION AGAINST CARDIOVASCULAR DISEASES

Afro-Americans receive fewer cardiovascular protective drugs and bypass surgery than their white counterparts. This is the conclusion of Jawahar L. Mehta et al. in the American Journal of Cardiology from last month.

The study among 475 000 patients from the same health care provider revealed a lower prescription for statins, ACE inhibitors and beta-blockers in the Afro-American group. These results are counterintuitive, since Afro-American people have a higher risk to develop cardiovascular diseases (CVD). The difference in drug prescription could explain why there was no drop in mortality from CVD in this group, which was observed in the white population.

The difference in prescription cannot be explained by unequal access to health care, as access of both populations was similar. The reasons underlying the disparities are not clear. Socioeconomic factors and education might be involved, but a bias at the side of doctors cannot be excluded. **JS**

RWANDA: FROM GENOCIDE TO ASTONISHING HEALTH IN SIXTEEN YEARS

In 1994 the genocide reduced the population of Rwanda by 800 000. Sixteen years later Rwanda is ready to become one of the few African countries that might successfully meet the Millennium Development Goals for child and maternal mortality.

The percentage of assisted childbirths rose from 39 to 52% between 2005 and 2006. The immunization rates hit an incredible 95% in 2008 and the use of insecticide-treated bed nets grew from 4 to 67% of the population in just three years.

The key for this progress is presumably the massive investment in health care. As a share of the national budget, the health care expenditure has increased from 4.2% in 1996 to 12% in 2010. In addition, the government has started a social insurance scheme to make services available to the whole community. This scheme mostly serves the poor and has been proven very successful. **LH**

ANTI-ABORTION LAW KILLS WOMEN

Nearly half of the women in Kenya give birth before the age of twenty. Considering the low access to contraception and surges of sexual violence, this figure is not that surprising. The alternative to giving birth, an abortion, is often illegal and can mean a death sentence for these young women. Overall, about 35% of the country's maternal deaths can be traced to unsafe abortions.

Abortion in Kenya is only legal when the life of the woman is in danger. But these strict rules do not prevent abortions from happening. Girls who seek abortions after getting raped or get pregnant after working in the sex industry are not even offered the most rudimentary care. They risk dying from massive blood loss and infections from shoddy procedures. Yet, not having an abortion also has far-reaching consequences: every year 13 000 girls drop out of school due to pregnancy. **LH**

