

EPIDEMIOLOGY

Early births tied to poor sleep

Three million mums studied.

BY AMY MAXMEN

Despite strides in maternal medicine, premature birth remains a vexing problem worldwide. But an analysis of medical records from almost 3 million pregnant women in California suggests that a surprisingly simple intervention — better sleep — might help to address the issue.

Scientists found that women who had been diagnosed with insomnia or sleep apnea were about twice as likely as women without these disorders to deliver their babies more than six weeks early. “It seems obvious, but strangely this study has not been done before,” says Laura Jelliffe-Pawlowski, an epidemiologist at the University of California, San Francisco (UCSF), and an author of the study published on 8 August (J. N. Felder *et al. Obstet. Gynecol.* **130**, 573–581; 2017).

Public-health experts say that improved treatments for pregnant women with serious sleep disorders could save babies’ lives. Every year, 15 million babies worldwide are born prematurely — more than 3 weeks before the end of a typical full-term pregnancy of 40 weeks. These children have less time to develop in the womb, and 1.1 million will die from birth-related complications. Many others are left with disabilities and various health issues.

The analysis is part of the US\$100-million UCSF Preterm Birth Initiative. It aims to mine large quantities of historical data, and to use the findings to identify and test medical and social interventions that could reduce the number of premature births.

The latest study examined the records of almost 3 million births that took place in California between 2007 and 2012. These were scrubbed of any identifying information.

Insomnia increased a woman’s risk of giving birth prematurely by 30%, whereas sleep apnea increased the risk by 40%. And 5.3% of women with sleep issues delivered their babies very prematurely, when less than 34 weeks pregnant, compared to 2.9% for women without such a diagnosis.

Researchers say that a lack of sleep is unlikely to be a direct cause of early births, but it could trigger other processes, such as inflammation, that eventually result in prematurity.

“I counsel women on how to have the best pregnancy outcome,” says Louis Muglia, director of the Center for Prevention of Preterm Birth at Cincinnati Children’s Hospital Medical Center in Ohio. “Now I might start asking, ‘Do you get a good night’s sleep?’” ■

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The Western red colobus monkey (*Piliocolobus badius*) is found in Côte D'Ivoire's Taï National Park.

continue in this way,” he adds. “We need a large community of African primatologists working in their own countries and helping to train new generations of specialists.”

That’s already starting to happen, says Wittig, who is co-director of the Taï Chimpanzee Project. “There is now a crop of well-trained African researchers who are taking the lead,” he says. Koné, who is involved in the Taï chimp study and a project with Western scientists focused on the national park’s monkeys, says that having local researchers as partners benefits international conservation efforts. “Local communities and decision-makers will be more sensitive to messages from nationals working in synergy with expats.”

Although the prospects look bleak for primates in many parts of Africa, no species are yet believed to have gone extinct, says Wittig. But it will not be possible to rapidly solve major challenges such as habitat loss, so long-term planning is needed. Sustaining research and conservation in national parks is one of the best ways to protect vulnerable primate populations, he adds.

The biggest challenges facing African primatology are the lack of training and expertise for the continent’s researchers, says Rachel Ikemeh, principal investigator of the SW/Niger Delta Forest Project in Abuja, Nigeria, and a driving force behind the APS’s establishment. The society will therefore focus on training African

scientists to start conservation efforts and to lead research projects.

“Increasing the roles and responsibilities of Africans is paramount, if we consider that Africans are essentially the main custodians of primates occurring within their natural habitat across the continent,” says Ikemeh, who saw plenty of future leaders in primate conservation and research at the congress.

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ers, says Mittermeier. “We can bring many more people to work on primate conservation in their own backyards.”

Mittermeier points to Brazil, a world leader in primatology, as an example of what can be achieved. Since its creation in 1979, the Brazilian Society of Primatology has spurred research and conservation efforts, supported hundreds of Brazilian primatology PhD students and helped to build extensive networks among non-governmental organizations, universities and government, he says. “Now is the time for Africa.” ■

For funding agencies, it can be more cost-effective to support nationals in countries with primate populations than to employ international researchers.