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# Care-seeking and health insurance among pregnancy-related deaths: A population-based study in Jember District, East Java Province, Indonesia

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Availability of facility resources and services and infection-related maternal outcomes in the WHO Global Maternal Sepsis Study: a cross-sectional study

Brizuela, V. , Cuesta, C. , Bartolelli, G.  
(2021) *The Lancet Global Health*

Associations between Indonesia's national health insurance, effective coverage in maternal health and neonatal mortality: a multilevel interrupted time-series analysis 2000-2017

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EDUCATION

03/08/2023

### Neighbourhood effects on educational attainment. What matters more: exposure to poverty or exposure to affluence?

Trout and colleagues show that, in the Netherlands, neighbourhood affluence has a stronger effect on educational attainment than neighbourhood poverty, and that children with higher educated parents are not affected by neighbourhood poverty.

Image credit: [Amsterdam](#) by PublicDomainPictures/ 17901 images, [Pixabay](#)

CANCER RESEARCH

03/16/2023

### Validation of a 3D perfused cell culture platform as a tool for humanised preclinical drug testing in breast cancer using established cell lines and patient-derived tissues

Liu and colleagues demonstrate how 3D cell culture can be used to investigate drug effects on breast cancer cells. The approach presents a potential future alternative to animal models and holds promise for personalized medicine.

Image credit: [Fig 1c](#) by Liu et al., [CC BY 4.0](#)

MENTAL HEALTH

03/15/2023

### Network analysis reveals abnormal functional brain circuitry in anxious dogs

Xu and colleagues investigated abnormalities in function brain networks in anxious dogs and find that network topological changes at the node level are correlated with anxiety symptoms.

Image credit: [Fig 1](#) by Xu et al., [CC BY 4.0](#)

PLASTIC POLLUTION

03/08/2023

### A growing plastic smog, now estimated to be over 170 trillion plastic particles afloat in the world's oceans – urgent solutions required.

Eriksen and colleagues provide an update on their seminal 2014 analysis of plastics floating in the ocean ([pone.0111913](#)), using new data from the peer-reviewed literature and 5 Gyres Institute expeditions. They observe a trend of increasing numbers of plastic particles since 2006, to about 82–358 trillion today.

Image credit: [Fig 1](#) by Eriksen et al., [CC BY 4.0](#)

EVERYONE

03/13/2023

### Editor Spotlight: Haroldo V. Ribeiro

In this interview, PLOS ONE Academic Editor Haroldo V. Ribeiro talks about his editorial experience, complex systems, and sharing data and code.

Image credit: Haroldo V. Ribeiro

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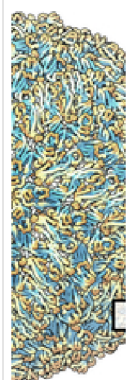
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03/01/2023

## An Update to the Human Subjects Research Policy on PLOS ONE

Safeguarding the integrity of, and trust in, research involving human subjects.

Image credit: PLOS

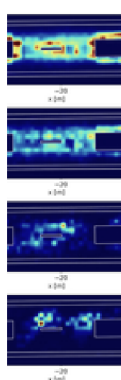


COMPUTATIONAL BIOLOGY 03/15/2023

## B-cell epitope discovery: the first protein flexibility-based algorithm—Zika virus conserved epitope demonstration

Ortoleva and colleagues present a very complete analysis of the epitopes on Zika virus surface.

Image credit: Fig 2 by Biner et al., CC BY 4.0

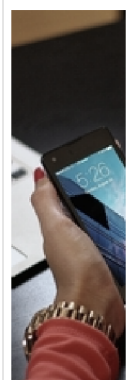


COMPUTER SCIENCE 03/15/2023

## Identification of social groups and waiting pedestrians at railway platforms using trajectory data

Küpper and Seyfried study non-walking social group dynamics, using data from crowds waiting on train platforms.

Image credit: Fig 7 by Küpper et al., CC BY 4.0

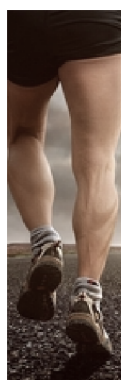


RESEARCH DESIGN 03/09/2023

## Shedding light on participant selection bias in Ecological Momentary Assessment (EMA) studies: Findings from an Internet panel study

Stone and colleagues examine person selection bias in momentary data collection studies.

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SPORTS SCIENCE 03/22/2023

## Surface effects on kinematics, kinetics and stiffness of habitual rearfoot strikers during running

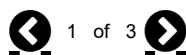
Wang and colleagues find that rearfoot runners are at a higher risk of injuries when running on harder surfaces.

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## Call for Papers

### Reproducibility and Replicability in Neuroscience and Mental Health

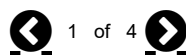
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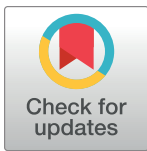
## RESEARCH ARTICLE

## Brucellosis testing patterns at health facilities in Arusha region, northern Tanzania

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**Data Availability Statement:** The [supporting data](#) for the analysis and deductions drawn in this paper have been made available through the Kilimanjaro Clinical Research Institute's Data Repository

## Abstract

## Background

Brucellosis is listed as one of six priority zoonoses in Tanzania's One Health strategic plan which highlights gaps in data needed for the surveillance and estimation of human brucellosis burdens. This study collected data on current testing practices and test results for human brucellosis in Arusha region, northern Tanzania.

## Methods

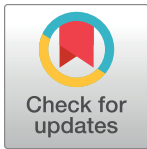
Retrospective data were extracted from records at 24 health facilities in Arusha region for the period January 2012 to May 2018. Data were captured on: the test reagents used for brucellosis, procurement and testing protocols, the monthly number of patients tested for brucellosis and the monthly number testing positive. Generalised linear mixed models were used to evaluate relationships between health facility characteristics and the probability that brucellosis testing was conducted in a given month, and the proportion of individuals testing positive.

## Results

Four febrile *Brucella* agglutination tests were used widely. The probability of testing for brucellosis in a given month was significantly associated with an interaction between year of testing and facility ownership. Test probability increased over time with more pronounced increases in privately owned as compared to government facilities. The proportion of individuals testing positive for brucellosis was significantly associated with facility type and district, with individuals tested in hospitals in Meru, Monduli and Ngorongoro districts more likely to test positive.

## RESEARCH ARTICLE

# High school science fair: Ethnicity trends in student participation and experience

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## Abstract

In this paper, we report ethnicity trends in student participation and experience in high school science and engineering fair (SEFs). SEF participation showed significant ethnic diversity. For survey students, the approximate distribution was Asian-32%; Black-11%; Hispanic-20%; White-33%; Other-3%. Comparing the SEF level at which students competed from school to district to region to state levels, we observed that black students made up only 4.5% of the students who participated in SEF beyond the school level, whereas students from other ethnic groups were more equally represented at all levels. The lower percentage of Black students resulted from a combination of lower overall participation in SEF and lower percentage of those students who did participate to advance to SEFs beyond the school level. Students who advanced to SEFs beyond the school level frequently received help from scientists, coaching for the interview, and were not required to participate in SEF. Black students received the least help from scientists, were least likely to receive coaching for the interview, and were most likely to be required to participate in SEF. They also were most likely to receive no help from parents, teachers, or scientists. Asian and Hispanic students (63.8% and 56.8%) indicated a greater interest in careers in science and engineering (S&E) compared to Black and White students (43.7% & 50.7%). In addition to career interest, the most important experiences that correlated with students who indicated that SEF increased their interests in S&E were getting help from the internet, books and magazines; getting help fine tuning the report; and overcoming obstacles by doing more background research, making a timeline, and perseverance. Black students did not report a positive effect of any of these strategies but experienced time pressure as more of an obstacle than did other students. Our findings identify a wide range of student experiences associated with positive SEF outcomes that could be enhanced for all students but especially Black students. More involvement of scientists in helping students who participate in SEFs would be particularly valuable.

## OPEN ACCESS

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## Introduction

Several years ago, we initiated a survey research program to learn student opinions about their experiences in high school science and engineering fairs (SEFs) with the goal of improving