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Evaluation of the Benefits, Quality of Services and Challenges to the Nigerian National Health Insurance Scheme among Enrollees in a Tertiary Teaching Hospital in Southeast Nigeria

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Authors' contributions

This work was carried out in collaboration among all authors. Author GNE designed the study and wrote the protocol. Authors UO and VUO supervised the work. Author GNE collected all data. Authors RCO and BOO performed the statistical analysis. Authors GNE and BOO wrote the draft of the manuscript. Authors GNE and BOO did the literature search and wrote the manuscript. All authors read and approved the final manuscript.

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ABSTRACT

Objective: Access to quality healthcare has been a prerogative of the middle and high socioeconomic class leading to the introduction of health insurance in developing countries to share the burden, reduce cost, and step up health care financing and coverage. This study assessed the benefits, quality of services and challenges of the National Health Insurance Scheme (NHIS).
Methods: The study was a cross-sectional descriptive survey of all eligible NHIS enrollees. The study was conducted between January 2014 and April 2016. Data was collected using self-

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administered structured questionnaire and analyzed for demographics, enrollees perceived benefits of NHIS, quality of services, challenges, and problems using descriptive statistics.
Results: Study showed that 91.1% of enrollees believed that the scheme is beneficial while 92.5% had confidence in the services and believed that it has reduced payment of their hospital bills. A total of 74.5% of the enrollees indicated positive response to quality and effective service under the scheme. The challenges borders on poor funding which does not allow for full coverage of all the essential medicines and entire family members for people with large families. Delay in collection of enrollees' card was another major setback.
Conclusion: The National Health Insurance Scheme is beneficial to the enrollees and offers quality and effective services. However, poor funding limits its impact on the health benefits of the enrollees. The government needs to develop strategies to facilitate the operations of the scheme more efficient through improved funding and awareness campaign to improve coverage at all levels, boost the asset base, and improve services and efficiency.

Keywords: Healthcare; health financing; quality of services; challenges; health insurance; Nigeria.

1. INTRODUCTION

Healthcare financing presents enormous challenges to different countries globally. Many low and middle income countries including Nigeria face stiffer healthcare financing challenges due to poorly developed healthcare systems that are generally under-funded. Various strategies have been adopted to finance healthcare services in these countries including user fees or out-of-pocket payments at the point of service delivery [1]. Overwhelming evidence, however, suggests that these strategies rarely met the goals of access and equity in healthcare delivery and may even constitute a strong barrier to the utilization of health care services, as well as preventing adherence to long term treatment among poor and vulnerable groups [1,2,3]. These problems led to search for alternatives of health care financing options that met the needs of majority of the population.

Prepayment and risk pooling through Social Health Insurance (SHI) healthcare taxation that evolved and were found to provide protection against some of the undesirable effects of user fees [4,5]. It provides a system for pooling of health risks, preventing health related impoverishment and improving the efficiency and quality of health care services [4,6,7]. It also provides access to health care services for the poor and helps mobilize revenue for providers. The major setbacks of the social health insurance, however, include: high administrative costs, lack of managerial skills, problems of cost containment and ensuring national coverage [2]. As a result of these setbacks there are still very few examples of large scale deployment of the SHI schemes at national level in developing countries [7].

Healthcare financing in Nigeria evolved through a long history of the country's existence. The Nigeria's Ten-Year Plan for Development and Welfare (1946-56) incorporated the first attempt at planning for Health Services in Nigeria. Since Nigeria's Independence in October 1st 1960 successive Nigerian Governments (Civilian and Military) have come up with the 2nd, 3rd and 4th National Development Plans all of which has substantial portions dedicated to addressing issues related to National Health care Systems. Presently healthcare system in Nigeria is stratified into Primary, Secondary and Tertiary Health Care levels which are managed by the three tiers of government. The primary healthcare (PHC) level was designed to take health care delivery literally to the doorstep of the populace and act as the gatekeeper to the Health care system. Before the introduction of the National Health Insurance Scheme (NHIS) in Nigeria, healthcare services to Government officials, their dependents and students were supposed to be free while the general populace paid for their healthcare needs at all levels of the health system through the out-of-pocket (OOP) payment system. This system could not however meet the healthcare needs of majority of the population due largely to challenges of widespread poverty and other system short falls. The poor especially, resort to self-medication and report late to health facilities for treatment [8,9].

The free healthcare services could not, however, be sustained because of the economic crunch and corruption. This which invariably led to budget cuts on social spending including health and education. The budgetary allocation for the health sector in Nigeria has persistently fallen far below the WHO recommendation of 26% annually. In the 2014 fiscal year the health sector

received budgetary allocation of only $ 0.7 billion (₦262 billion) or about 6% of the total budget. This was still slightly less than the $ 0.8 billion (₦279 billion) allocated to the health sector in 2013 and did not meet the 15% mark agreed upon by the African Union countries to improve healthcare delivery in the region [10]. Thus, little money was available for the health sector and this led to widespread shortages of essential medicines, supplies and equipment which adversely affected the quality of care in public health facilities [11]. This prompted the search other better alternatives for health care financing that would benefit the majority of the populace which led to the evolution of the concept of Health Insurance [12]. Insurance is a veritable tool for healthcare financing globally. It has been used by most advanced countries in its various forms to cushion the effects of high cost of healthcare from the end users particularly the poor. It is only recently being applied by developing nations to address the glaring problem of inadequate healthcare provision, which was hitherto financed exclusively from public taxation. Health Insurance has been defined as a system of advance financing of health expenditure through contributions, premiums or taxes paid into a common pool to pay for all or part of health services specified by a policy or plan. Health insurance is a system in which a prospective consumer of healthcare make payments to a third party on the understanding that in the event of a future illness this third party will pay for some or all of the expenses incurred [13]. It has been implemented as part of health reforms and strategies aimed towards providing effective and efficient health care for citizens, most especially for the poor and vulnerable. Health insurance schemes in many low and middle income countries (LMICs), most especially in the African continent, are still in their early stages of implementation with the goal of universal coverage of the population. In Nigeria, health insurance has been introduced to the populace in mid-2005.

In order to promote universal coverage and equity national governments had adopted the National Health Insurance Scheme (NHIS). Many African countries, including Nigeria, decided to implement the National Health Insurance Scheme (NHIS) to complement funding for the health sector, with a view to improve equity in health [14]. The National Health Insurance Scheme (NHIS) is a body set up by enabling legislation in a country to operate as a Public Private Partnership designed to provide accessible, affordable and qualitative healthcare for all the population. The NHIS aims to assure equitable and universal access for all residents of Ghana to an acceptable quality package of essential health care services without OOP payment being required at the point of use. The NHIS was first conceived in Nigeria in 1962 but was actually launched without an enabling law for its implementation in October 1997 after a series of failed attempts by successive administrations. The scheme gained legislative recognition under Decree No. 35 of 1999 of the Federal Republic of Nigeria, though its actual implementation commenced only in 2002 [15]. The Scheme was officially launched on 6 June 2005 and commencement of services to enrollees started in September 2005. Until date, over 4 million Identity Cards have been issued to the enrollees in different states of Nigeria. Several Health management Organizations, (HMOs), Healthcare Providers, Banks, Insurance Companies and Insurance Brokers have also been accredited and registered to drive the scheme nationwide.

In order to ensure that every Nigerian has access to good healthcare services, the Nigerian NHIS was structured to cover all groups in society. Thus, there is the formal sector health insurance program; urban self-employed health insurance program; rural community program; the under-five children insurance program; the permanently disabled social health insurance program; the prison inmates program, and the international travel health insurance program. NHIS implementation in Nigeria started with compulsory enrollment of employees in the public sector [16]. There are more than 5 million Nigerians accessing the scheme, and most of them are employees of the Federal Civil Service [17,18]. The next phase of the implementation will cover the State civil servants and the other groups.

Since the inception of the NHIS, many studies have been carried out on the acceptability and overall performance as well as the determinants of enrolment into the scheme. Some studies also focused on the health seeking behavior of insured clients. In a study in Ghana it was shown that more than 90% of the respondents agreed to enroll in the NHIS and about 63.6% were willing to pay a monthly premium of $3.03 [19]. A study on perception of providers and enrollees in the scheme in Ghana showed perceived opportunistic behavior of the insured by providers, which accounted for their difference in

the behavior towards the scheme [20]. A recent study in Nigeria documented poor knowledge and pessimism about the NHIS scheme among the populace in Kano state, Nigeria [21]. Some researchers also showed that major determinants of enrollment into the NHIS included wealth status whereby individuals from poorer households were less likely to enroll compared with those from rich households [22,23].

There are concerns among the populace about the success of the Nigeria NHIS Scheme due to inadequate knowledge and capacity to operate the scheme, level of corruption and lack of transparency and accountability in the country [24]. Enrollees in the scheme are uncertain about how it will affect the doctor – patient relationship. Due to poor infrastructure in public hospitals, it was expected that the populace would readily embrace the scheme. However, this was not to be as it was not clear what their perception and attitudes towards the scheme were and this would affect, invariably, their active participation and overall success of the scheme.

Generally, perception and attitudes of the populace towards government policies and programs can be assessed by individual attitude and behaviours. Negative perception and attitude towards these policies and programs from the populace could make such policies and programs to fail. An attitude is a learned disposition to behave in a consistently favourable or unfavourable way with respect to a given object or concept [25]. People usually have attitudes toward almost everything - religion, politics, clothes, music, and even food and these attitudes reflect in their responses and actions towards such objects or issues. Awareness and perception of the governed towards these government programs and activities makes them have positive attitude and perception towards these programs, thus, improving their participation and responsiveness to them. The perception and attitudes of the healthcare providers and the enrollees about NHIS have not been adequately researched in Nigeria. It is thus necessary to study their perceptions and attitudes towards the NHIS in order provide research data that would aid in the development of practice strategies that would improve uptake and performance of the scheme. This study was done to assess the benefits, quality of services and challenges of the of the Nigeria National Health Insurance Scheme among enrollees at the Nnamdi Azikwe University Teaching Hospital, Nnewi and its outstations. This study assessed the benefits, quality of services and challenges of the of the National Health Insurance Scheme (NHIS).

2. METHODS

2.1 Study Setting

The study was carried out among healthcare professionals namely pharmacists, doctors, nurses and medical laboratory scientists, and patients who were enrollees in the NHIS Scheme at the Nnamdi Azikiwe University Teaching Hospital, (NAUTH) Nnewi. This hospital is one of the leading teaching hospitals in Nigeria. Located in Nnewi town in Anambra State southeast Nigeria it is designated as centre of excellence in nephrology. The teaching hospital has full complements of all clinical departments and service units namely: surgery, medicine, paediatrics, obstetrics and gynaecology, pathology and radiology departments, human immune virus and acquired immune deficiency syndrome (HIV / AIDS) and directly observed treatment short course (DOTS) centre, nursing services, pharmacy, medical records and other non-clinical departments. It has over 7 wards with over 1000-bed capacity and about 1200 healthcare professionals who provide specialist healthcare in the hospital. The study was also covered other NAUTH satellite stations at rural and urban areas namely: the NAUTH Guinness Specialist Eye Centre, Onitsha and the NAUTH Staff Clinic, Awka are in the Urban centers while the outstations at community healthcare center (CHC) Neni, CHC Ukpo, CHC Umunya and the Trauma Centre at Oba which were all located in the rural areas.

Participants for the survey were selected using convenient sampling technique among all the enrollees in the NHIS Scheme who access healthcare at the hospital up until the survey period in 2013. Thus, 1200 eligible enrollees made up of both healthcare professionals and other client-enrollees were included in the survey. The questionnaire was adapted from the tool used for a related questionnaire-based study [25] and self-administered to the selected participants for the study. The instrument was pre-tested in 15 of the enrollees who were excluded from the study population. The researcher distributed the questionnaires to the research participants during visits for clinic appointments and collected them back from those that have completed theirs during

subsequent visits. Phone calls and text messages were sent as reminders to encourage the participants to complete and return the questionnaires [25,26].

2.2 Study Design

The study was a cross-sectional descriptive survey of all eligible NHIS enrollees. Study was conducted between January 2014 and April 2016. Data was collected using self-administered structured questionnaire. The benefits of NHIS, quality of services and challenges encountered by enrollees were assessed. This was to understand the gaps in the scheme, which can be addressed by intervention in subsequent studies.

2.3 Inclusion Criteria

- NHIS enrollees.
- People who have been on the scheme for more than one year.
- Those who can read and understand English Language.
- People above 30 years of age at the commencement of the study.
- People who have had accessed the facilities for at least thrice within the past 12 months.
- Those who gave their informed consent to participate in the study.

2.4 Exclusion Criteria

- NHIS enrollees who did not give their informed consent.
- Those who can neither read nor understand English Language.
- Enrollees who have not accessed the NHIS services for more than one year.
- Those who have not accessed the facilities up to thrice within the past 12 months.

2.5 Data Analysis

All data from this study were collected sorted and checked for quality and accuracy. The data were entered into a database specially created for this project using the Statistical Package for Social Sciences (SPSS) version 17 and analyzed for descriptive statistics. Categorical data were expressed as percentages.

2.6 Ethical Considerations

Ethical approval was obtained from the research and ethics committee of the hospital before commencement of the study. Informed consent was also obtained from all enrollees who participated in the study.

3. RESULTS

Out of the 1200, enrollees included in this study 1013 of them returned their questionnaire giving response rate of 84.4%. Among these respondents were 238 (24.5%) males and 732 (75.5%) females; giving the Male to Female ratio of 1: 3. Out of the 997 enrollees, 102 (10.2%) were health professionals while 895 (89.8%) were patients. There were thus more female enrollees than males. The mean age of the respondents was 35.6±6.0 while their median age (inter quartile range) was (35-40) years. The urban centers contributed 871 (86.3%) of the enrollees-respondents while the rural centers contributed only 138 (13.7%); thus the urban to rural ratio of the respondents was 6:1; more of the respondents were assessing healthcare in the urban areas.

Other demographic details of the respondents are summarized in Table 1.

4. DISCUSSION

Understanding of human behaviour is vital to positive behavioural changes that improve health practices. Experts in health interventions and health policy are increasingly aware of human behavioural factors in quality health care provision. In order to respond to community perspectives and needs, health systems need to adapt their strategies, taking into account the findings from behavioural studies [27]. Majority of the respondents in this study were within the modal age group of 30 - 39 years. This finding is comparable to a similar study in Ghana, which reported the modal age group of 18-35 years [28]. Over three quarters of the respondents were females. It suggests that women have better health seeking behaviour than their male counterparts. A study in the United States suggested that men are less likely to seek help from health professionals for problems more complicated as depression, substance abuse, physical disabilities, and stressful life events than women. Previous research has revealed that the principal health related issues facing men in the United Kingdom (UK) are related to their reluctance to seek for healthcare services [29]. This may probably account for higher proportion of females than males enrollee-respondents in this study.

Table 1. Demographic characteristics of the respondents

Variable n= 970	Frequency (n)	Proportion (%)
Hospitals		
NAUTH Nnewi	801	79.4
Guiness Eye Centre, Onitsha	46	4.6
CHC Neni	28	2.8
CHC Ukpo	29	2.9
CHC Umunya	40	4.0
Trauma Centre Oba	41	4.1
Nauth staff Clinic, Awka.	24	2.4
Total	**1009**	**100.0**
Male	238	24.5
Female	732	75.5
Total	970	100.0
18 - 29 Years	130	13.0
30 - 39 Years	404	40.4
40 - 49 Years	367	36.7
50 Years and above	98	9.8
Total	999	100.0
Marital Status (n=1001)		
Single	190	19.0
Married	779	77.8
Devorced / Seperated	5	0.5
Widowed	27	2.7
Total	1001	100.0
Level of education (n = 994)		
Primary	5	0.5
Secindary	151	15.2
Tertiary	835	84.0
None	3	0.3
Total	994	100.0
Religion (n = 1007)		
Christianity	1004	99.7
Traditional	3	0.3
Total	1007	100.0
Occupation		
Trading	21	2.1
Public / Civil Servant	944	94.7
Student	32	3.2
Total	997	100.0

Greater proportion of the respondents with tertiary level of education 835 (84.0%) were enrolled in the scheme compared to those with primary education 5 (5.0%); secondary 151 (5.5%) or those with no academic qualifications, 3 (3%). A study conducted in Ghana indicated positive relationship between education and uptake of the NHIS Scheme [28]. This could be attributed to the fact that individuals with tertiary level of education tend to be more informed of the benefits of the scheme than those with primary and secondary level of education who may be less aware of the scheme and its benefits.

Most of the respondents 944 (94.7%) were civil servants. Others were traders, 21 (2.1%) and students, 32 (3.2%). Some studies documented that high proportion of enrollees in the scheme are civil servants in the formal sector of Nigerian's economy [24,30]. This may be attributable to the fact that the Nigerian government started NHIS with Federal Government staffs that were among the enrollee-

respondents in the study. There was high level of awareness about the scheme among the enrollees in this study. Majority of them stated they knew about the scheme hence their enrollment in it. Majority of them, 593 (61.1%) heard about the scheme though the Television / Radio/News Paper. This finding is in line with the report of other studies [28,31], underscores the effectiveness of the electronic, and prints media as fastest, cheapest, and easiest means of communicating government policies to the populace. Health care providers and the scheme management could assist to increase awareness about the scheme by reaching out to clients in their health facilities when they want to access health services [28-31].

Table 2. Enrollees knowledge of NHIS

Variable	Frequency	Proportion (%)
How did you know about the NHIS scheme (n = 971)		
Television/Radio/News Paper	593	61.1
Bill Board	128	13.2
Friends	190	19.6
Community Leader	60	6.1
Total	971	100.0
Year enrolled in NHIS (n = 995)		
2006	383	38.5
2007	183	18.4
2008	136	13.7
2009	75	7.5
2010	106	10.7
2011	65	6.5
2012	47	4.7
Total	995	100.0
Who pays for health services NHIS (n = 995)		
Individual Alone	19	1.9
Government alone	294	29.3
Both individual and government	685	68.8
Total	**995**	**100.0**
Did you pay 10% of total cost of drugs (n=994)		
Yes	964	97.0
No	30	3.0
Total	994	100.0

Table 3. Enrollees perceived benefits of the NHIS scheme

Variable	Frequency	Proportion: n (%)
Benefited from joining the NHIS (n = 994)		
Yes	906	91.1
No	86	8.9
Total	**994**	**100.0**
I Have No Confidence in Scheme (n = 1001)		
Yes	31	3.3
No	968	96.7
Total	1001	100.0
NHIS Reduces payment of hospital bills (n=1002)		
Yes	927	92.5
No	26	2.6
I Do Not Know	**49**	**4.9**
Total	1002	100.0
Treatment received was effective (n = 1004)		
Yes	748	74.5
No	100	10.0
I Do Not Know	156	15.5
Total	**1004**	**100.0**

Table 4. Enrollees perceived quality of care under the NHIS

Variable	n (%)
I can get immediate care if I need it (n = 1001)	
Yes	179 (17.9)
No	821 (82.1)
Total	**1001 (100)**
Properly counseled on the use of drugs (n = 989)	
Yes	840 (84.9)
No	61 (6.2)
Unresponsive	88 (8.9)
Total	**989 (100)**
Waiting time before seeing doctor (n=985)	
Less than 30 minutes	271 (36.2)
30 minutes to 1 hour	365 (42.3)
1 - 2 hours	214 (15.2)
2 hours and above	135 (6.3)
Total	**985 (100)**
Waiting time at pharmacy before collecting drugs (n = 986)	
Less than 30 minutes	357 (36.0)
30 minutes to 1 hour	417 (42.0)
1 hour to 2 hours	150 (15.0)
2 hours and above	62 (7.0)
Total	**986 (100)**
Waiting time before seeing laboratory scientist	
Less than 30 minutes	409 (47.3)
30 minutes to 1 hour	298 (34.5)
1 hour - 2 hours	97 (11.2)
2 hours and above	61 (7.0)
Total	**865 (100)**
The doctors do clinical examination	
Yes	796 (79.1)
No	101 (10.1)
I Do Not Know	109 (10.8)
Total	**1006 (100)**

Generally, the NHIS had positive impact on health seeking behaviour and utilization of health services. It has the potential to improve maternal and child health among the pregnant enrollees because they are more likely to deliver in health facilities and supervised by trained health personnel. It has been posited that the National Health Insurance Scheme in Nigeria is unarguably an indispensible strategy for ameliorating the poor health indices of the country and reducing out-of-pocket expenditure for quality health care services [31]. Nearly all the enrollees included in this study, 966 (96.7%) have high confidence level in the NHIS while only 33 (3.3%) of them stated they have no confidence in the scheme. Similar proportion of enrollees had expressed their satisfaction with the performance of the scheme so far, but indicated that there is stillroom for improvement in the scheme.

Majority of the respondents in this study, stated they believed the treatment they received in the scheme was effective for recovery and cure; 100 (10%) thought otherwise while 156 (15.5%) were undecided. More than half of the respondents (54.0%) in a similar study rated the quality of health services “better than before” [31]. Only less than one tenth of them, 86 (8.9%) stated they had not benefitted from the scheme while virtually all of them, 906 (91.1%) stated that the NHIS scheme had benefitted them. More than half of the enrollees stated that the most important benefit of the scheme was that NHIS saves money and enables them to pay hospital bills. This finding is comparable to that of another study, which showed that the scheme has the potential of reducing out-of-pocket payment at the point of service utilization. It has also been argued that health insurance can make health care more accessible to a wider segment of the population and help reduce the huge expenditure on health without reducing quality [32].

The enrollees in this study identified various problems and challenges to the NHIS Scheme. More two thirds of them, 672 (67%) agreed that the present funding in scheme does not cover all aspects of medicine; only 129 (12.8%) of them did not perceive this s a problem while 203 (20.2%) were undecided. Similar proportion of them 640 (64.0%) perceived that the present funding in the scheme does not cover all dependent relatives; 178 (18.0%) of them did not perceive this as a problem while 185 (18%). Some of the enrollee-respondents 360 (36%) also stated that the time of collection of NHIS identity cards to access care was not convenient. Other reporters had also shown that issuance of identity cards presented a major barrier to enrolment especially among the respondents [31]. This is obviously an administrative problem within the healthcare facility. The scheme management as the integrity should enforce systematic and administrative review in the issuance of identity cards to enrollees and competence of managers of the scheme may have an effect on enrolment and performance of the Scheme [33]. This underscores the need to strengthen the existing workforce to meet the need of clients at all times. Only 31 (3.1%) of the respondents in this study stated they had no confidence in the scheme.

Table 5. Problems and challenges encountered by respondents on NHIS services

Variable	n (%)
The number of drugs in the NHIS list are not many (n = 1000)	
Yes	579 (57.9)
No	421 (42.1)
Total	**1000 (100.0)**
Availability of drugs should improve (n = 1002)	
Yes	927 (92.5)
No	26 (2.6)
I Do Not Know	49 (4.9)
Total	**1002 (100)**
Present funding does not cover all aspects of medicine (n = 1006)	
Yes	674 (67.0)
No	129 (12.8)
I Do Not Know	203 (20.2)
Total	**1006 (100.0)**
Present Funding Does Not Cover all dependent relatives (n=1003)	
Yes	642 (64.1)
No	176 (17.5)
I Do Not Know	185 (18.4)
Total	**1003 (100.0)**
Time of collection of NHIS identity card is convenient (n = 1003)	
Yes	362 (36.0)
No	498 (49.7)
I Do Not Know	143(14.3)
Total	**1003 (100.0)**

This finding was similarly reported in other studies within and outside Nigeria [34,35]. The NHIS scheme suffered initial resistance at the onset mainly due to poor coverage of education and enlightenment of the masses who were supposed to be the beneficiaries. However, the patronage increased afterwards when the awareness increased. This was consistent with a study carried out in Turkey's towns of Istanbul, Kayseri, and Erzurum cities in 2013 where there was resistance to electronic prescription initiated to prevent fraud and improve control over medicine use [36,37]. This experience was obtainable in Tunisia and some Asian countries [38-40].

5. CONCLUSION

National Health Insurance Scheme in Nigeria has positive impact on the healthcare financing in Nigeria. It reduces catastrophic spending for quality health care services. This study reported a high level of awareness about the NHIS Scheme among the enrollees in the Nnamdi Azikiwe University Teaching Hospital, Nnewi. This scheme has the potential to assist the government towards achievement of Millennium Development Goal 4 and 5 for all Nigerians. However, it is necessary for the government to develop strategies that would make the operations of the scheme more efficient and seamless in order to achieve the objectives of the scheme.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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