Given my reservations, I advise extreme caution in using the results from nations or regions with few or no studies or with studies that have no clearly defined and comparable methods. I agree with the GBD 2016 Multiple Sclerosis Collaborators that policy makers, administrators, care providers, and multiple sclerosis societies globally should call for valid information to improve resource allocation and health-service planning, but the first step should be to encourage the formation of administrative registers in nations and regions to enhance the accuracy of estimates. The next step could be to use the data to remap the burden of multiple sclerosis.

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The long journey towards uniform epidemiological monitoring of TBI around the globe

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Reliable epidemiological data and improved awareness of traumatic brain injury (TBI) are both essential to fully understand the scale and socioeconomic burden of this condition, including our ability to plan and implement prevention measures, and to allocate health-care resources.[1] Although accomplishing these tasks, at first glance, might be considered straightforward, reality has proven the contrary. To date, all attempts to harmonise data collection and analyses across Europe and USA still confirm wide variation and discrepancies in reported incidence and mortality.[1–3] These differences are mostly attributable to methodological diversity, including differences in case ascertainment, non-standardised definitions of TBI, and variations in hospital admission policies.[1–3] Moreover, robust data for many parts of the world, particularly for low-to-middle-income countries (LMICs) where TBI is likely to occur much more frequently, are almost entirely absent.

In *The Lancet Neurology*, Jiang and colleagues try to narrow this gap by providing a snapshot of the epidemiology and current status of care and research for TBI in China.[4] Based on a series of large-scale population-based investigations, a TBI incidence of 55·4–64·1 per 100 000 people per year is reported, which translates to 770 060–890 990 new cases of TBI every year in China.[4] This reported incidence appears lower than population-based incidence for USA (823·7 per 100 000 per year), Canada (979·1), and New Zealand (811·0), as well as reported hospital discharge rates from Europe (81·0–643·5 per 100 000 per year).[3] However, the interpretation and the comparison of these data need caution. Apart from incomplete patient ascertainment, in particular for patients with mild TBI or for patients in rural areas, all data from China originate from studies done in the 1980s. Over the past 30 years, no new nationwide data for the incidence of TBI have been made available for China.[4] Thus, the figures might have changed against the background of a growing population and increasing use of motor vehicles, but also advancements in the prevention and care for

TBI, including safety legislation for road traffic, the establishment of specialised intensive care units, and the implementation of evidence-based guidelines.[4]

Over the past three decades the population of China has increased by 300 million (from 1·084 billion in 1987 to 1·386 billion in 2017), and now represents around 18% of the global population.[5] While the epidemiology of TBI in high-income countries is shifting towards falls being the predominate cause, in particular in children (0–14 years) and in adults over 65 years, the rise in road traffic incidents and trauma-related violence still remain major causes for TBI in LMICs, including China.[1] Of 125 474 patients with acute TBI across 18 retrospective studies in China (2001–16), traffic incidents and violence accounted for 60% of all TBI cases.[4] The number of automobiles in China has increased by nearly five times, from 60 million in 2000 to 295 million in 2016, and the number of mopeds registered increased by 124% between 2008 and 2016, according to the Chinese National Bureau of Statistics.[4] However, a population-based study using data from the China National Disease Surveillance Points systems which, since 2004 has used standardised International Classification of Diseases coding in combination with the 2010 national census data, reported a decrease in age-adjusted TBI mortality from 17·06 per 100 000 in 2008 to 12·99 in 2013;[6] a rate similar to the pooled age-adjusted mortality in the European Union.[3]

The awareness and management of TBI in China has improved over the past decades through advancements in the prevention and care of TBI, including road safety legislation, the establishment of specialised neurosurgical intensive care units, and the implementation of evidence-based guidelines.[4] However, efforts need to be continued and expanded to overcome existing geographical differences in terms of infrastructure, logistics, and availability of trained specialists.

The large number of patients with TBI and the implementation of dedicated high-level clinical facilities have set the stage for the future and provide a fertile ground for research in the context of international consortia. The CENTER-TBI project[7] has harmonised data collection for TBI across selected centres in China and the European Union, and shows that TBI mortality in China might be similar to that of Europe. However, such initiatives for standardisation of global implementation and reporting of TBI incidence studies through close interaction between governmental studies and health-care professionals need to be expanded to overcome ongoing discrepancies in epidemiological findings and health-economic data, as well as for accurate model development to capture the real burden of TBI worldwide.

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