



# The Rohingya people of Myanmar: health, human rights, and identity

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The Rohingya people of Myanmar (known as Burma before 1989) were stripped of citizenship in 1982, because they could not meet the requirement of proving their forefathers settled in Burma before 1823, and now account for one in seven of the global population of stateless people. Of the total 1·5 million Rohingya people living in Myanmar and across southeast Asia, only 82 000 have any legal protection obtained through UN-designated refugee status. Since 2012, more than 159 000 people, most of whom are Rohingya, have fled Myanmar in poorly constructed boats for journeys lasting several weeks to neighbouring nations, causing hundreds of deaths. We outline historical events preceding this complex emergency in health and human rights. The Rohingya people face a cycle of poor infant and child health, malnutrition, waterborne illness, and lack of obstetric care. In December, 2014, a UN resolution called for an end to the crisis. We discuss the Myanmar Government's ongoing treatment of Rohingya through the lens of international law, and the steps that the newly elected parliament must pursue for a durable solution.

## Introduction

On May 17, 2015, the UN Secretary General Ban Ki-Moon warned of a deepening humanitarian crisis involving the Rohingya people of Myanmar,<sup>1</sup> who have lacked human security since Burma's first military coup in 1962. Because the Rohingya people experienced a complex emergency—ie, a situation of disrupted livelihood and threat to life produced by warfare, civil disturbance, and large-scale movements of people, in which any emergency response has to be conducted in a difficult political and security environment for more than half a century<sup>2</sup>—there is a lack of summative health data about this population in the medical literature. Assessments of health, nutrition, and human security provide insight into the needs of vulnerable populations.<sup>3</sup> In this Review, we aim to summarise the complicated history and crisis in health and human rights experienced by the Rohingya people. In November, 2014, the UN launched a global campaign to end statelessness within 10 years.<sup>4</sup> This effort will require resolution of the Rohingya crisis, as the Rohingya people account for more than one in every seven stateless individuals worldwide.<sup>5,6</sup>

## Anatomy of a crisis

### History debated

The southeast Asian nation of Myanmar includes Rakhine State (known as Arakan State before 1989), a borderland with Bangladesh to the north and the Bay of Bengal to the west (figure 1). Two major populations reside here: the Rohingya and the Rakhine (also known as the Arakanese) peoples (table 1). Whether the Rohingya people are native to Myanmar is contested. Supporting the Rohingya claim is a 1799 report by the Scottish physician Francis Buchanan, who spent 15 years in the region. A quarter-century before Britain's 1826 conquest of Burma, Buchanan documented that Arakan was also known as "Rovingaw",<sup>8</sup> among "Mohammedans, who have been long settled in Arakan, and who call themselves *Rooinga*, or natives of *Arakan*".<sup>8</sup> Nowadays,

the term Rohingya is both recognised and used by the UN, US Congress, European Parliament, and humanitarian agencies including Physicians for Human Rights, Human Rights Watch, and Médecins Sans Frontières.<sup>9–13</sup>

This historical narrative is disputed by some in Myanmar, who argue that Buchanan documented a name describing labourers visiting Burma from neighbouring Bengal.<sup>14</sup> They argue that after the 1826 onset of British colonial rule in Burma,<sup>15</sup> and the rise in value of rice due to opening of the Suez Canal, the colonial power encouraged so-called migrants from neighbouring Bengal to be agricultural workers in Arakan's unoccupied lands.<sup>14</sup> Today, Myanmar's Government does not recognise the term Rohingya, referring to this community as Bengalis or Bangladeshis.<sup>1,5</sup> In May, 2015, the Myanmar Government reasserted its refusal to discuss the Rohingya plight at an international conference if the nomenclature Rohingya was used.<sup>1</sup> The UN considers this position to be a violation of Myanmar's obligation to allow minorities

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## Search strategy and selection criteria

The health status of an oppressed population is the outcome of the ongoing oppression. Therefore, a health-care worker wanting to understand morbidity and mortality—ie, who is dying, and why—for a so-called population in danger must understand the history and politics of the region. Keeping this perspective in mind, we searched Google Scholar and PubMed for references between 1799 and July 1, 2015, by combining the terms "Rohingya", or "Rakhine", or "Arakan", or "Burma", or "Myanmar", with "history", "census", "complex emergency", "human security", "refugee", "internally displaced", "asylum", "stateless", "human rights", "movement", "maritime crossing", "sea voyage", "human trafficking", "detention", "under 5 mortality", "malnutrition", "underweight", "wasting", "stunting", "crude birth rate", "diarrhea", "sanitation", "obstetrics", "maternal mortality", and "pregnancy". We also searched for these terms in websites of the Myanmar Government, UN, UNHCR, UNICEF, World Bank, World Food Program, US Congress, European Parliament, European Union, Médecins Sans Frontières, Physician for Human Rights, Human Rights Watch, Transnational Institute, and Fortify Rights. We also searched the reference lists of articles identified by this search strategy and selected those we judged relevant.



Figure 1: Rakhine State in Myanmar

Explanation	
Burma	Renamed as Myanmar in 1989.
Arakan State	Kingdom conquered by Burma in 1784. Renamed as Rakhine State in 1989.
Rohingya people	Linguistically, religiously, and culturally distinct group who self-identify as Rohingya and have lived in Arakan State for centuries. This Muslim group is 2% of Myanmar population <sup>3</sup> and speaks the native Rohingya language, compared with the Burmese language spoken by Myanmar's Buddhist majority. Myanmar Government does not recognise the Rohingya people as a distinct and legitimate group. The Rohingya people are referred to as Bangladeshi or Bengali foreigners in Myanmar.
Rakhine people	Linguistically, culturally distinct group who self-identify as Rakhine and have lived in Arakan State for centuries. At 4% of Myanmar population, <sup>7</sup> their native language is Arakan and follow Buddhism similar to most people in Myanmar.
Rest of Myanmar	Burman (68%), Shan (9%), Karen (7%), Chinese (3%), Indian (2%), Mon (2%). <sup>7</sup>

Table 1: Ethnic diversity of Myanmar's population

the right to self-identify on the basis of their ethnic, religious, or linguistic characteristics.<sup>16</sup>

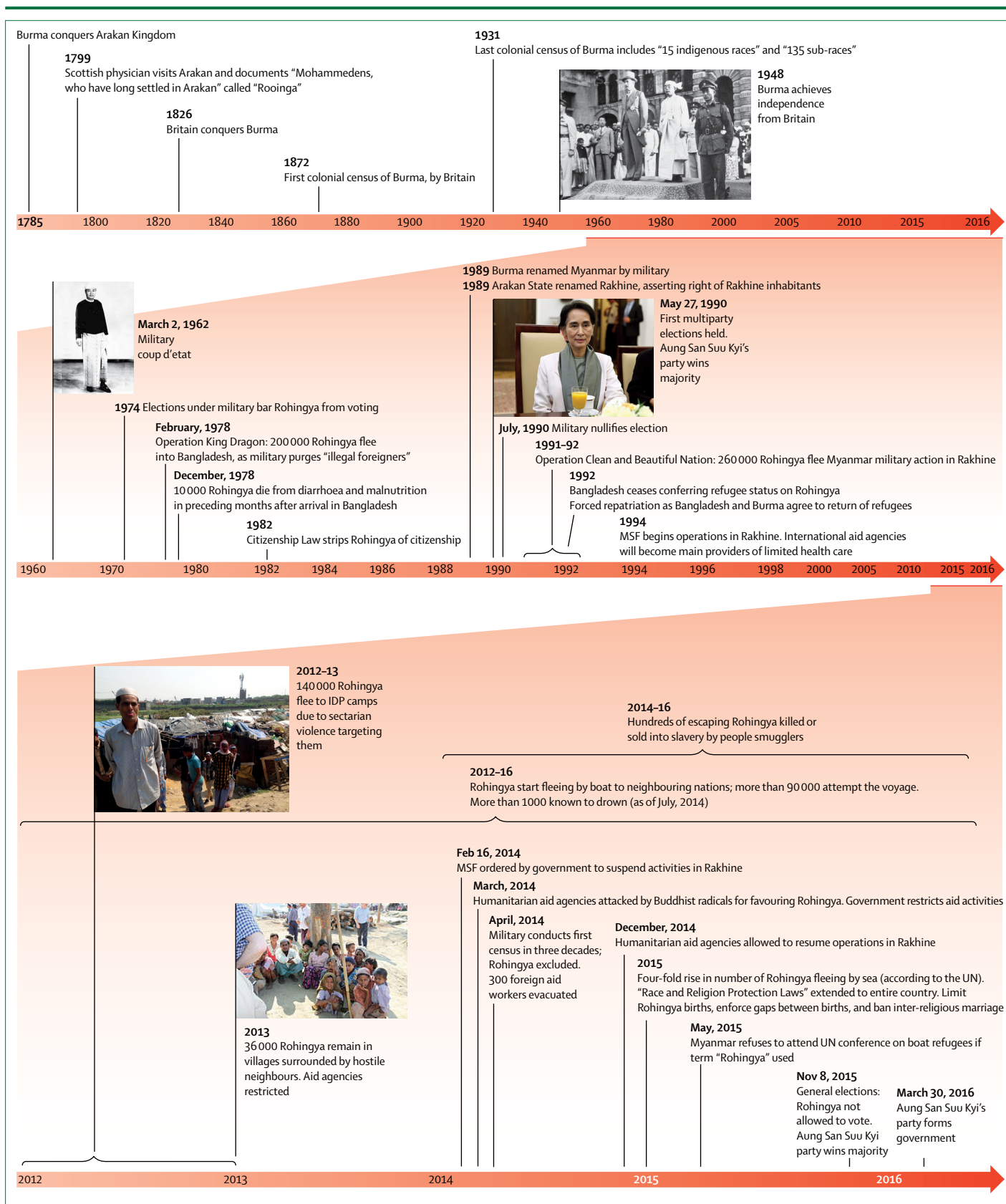
Colonial legacy and independence

In 1872, British colonial authorities conducted the first census of Burma, and by 1931 statisticians had classified the population of Burma into 15 indigenous races and 135 sub-races, which notably did not refer to the Rohingya.<sup>17–19</sup> After Burma's independence in 1948, some Rohingya were issued national registration cards.<sup>18</sup> However, after the military coup in 1962, the erosion of Rohingya civil and political rights began. For example, the 1974 national elections under a new constitution denied Rohingya the right to elect representation. Later, the Rakhine people were officially included as the eighth so-called major race of Burma, and Arakan was renamed as Rakhine State, thus solidifying the rights of the Rakhine people and ignoring their coexistence with the Rohingya people.<sup>15,18</sup> In 1978, more than 200 000 Rohingya fled to neighbouring Bangladesh to escape military operations to purge Burma of so-called illegal foreigners (figure 2). In 1982, the military government enacted the Citizenship Law (panel), placing on so-called non-major races the onerous requirement of demonstrating evidence of ancestral residency in Burma 160 years

earlier.<sup>20</sup> Consequently, most Rohingya—who made up one out of every four inhabitants of Arakan—were classified by the state as illegal foreigners.<sup>15</sup> The military government changed the name of the nation to Myanmar in 1989, and the following year imprisoned Aung San Suu Kyi, who had won the general elections, leading to further international sanctions.<sup>21</sup> An even larger exodus of 260 000 Rohingya to neighbouring Bangladesh occurred during 1991–92 military operations.<sup>21</sup>

Contemporary politics

In 2008, the military government introduced a new constitution, and general elections were held in 2010, with ongoing normalisation of relations with the international community. In June, 2012, violence between Rohingya and Rakhine residents of Rakhine State broke out, following the rape and murder of a Buddhist woman by three Rohingya men.<sup>22</sup> A few days later, hundreds of Rakhine surrounded a bus carrying Muslim passengers, beating ten to death.<sup>22</sup> Spiralling violence followed, spurring the government to send in the military. However, these authorities soon joined the Rakhine in the looting and killing of Rohingya.<sup>22</sup> A second wave of violence began in October, 2012, including organised destruction of Rohingya neighbourhoods.<sup>23</sup> International observers noted an apparent failure of authorities to respond appropriately to protect human rights of the Muslims, indicating possible collusion in the violence.<sup>24</sup> In early 2013, Buddhist monks from the 969 Movement delivered anti-Muslim speeches in various towns in the days before anti-Muslim violence erupted in those same areas. Buddhist residents were urged to boycott Muslim businesses, and display 969 logos on their businesses, homes, and vehicles as a show of solidarity.<sup>23</sup> The Dalai Lama denounced these attacks on Muslims by Buddhist monks in Myanmar, saying that killing in the name of religion is “unthinkable”.<sup>25</sup> More than 140 000 Rohingya fled to internally displaced person (IDP) camps.<sup>16,26</sup> These camps have since become detention centres, with the military restricting Rohingya movement; permits are required to leave camps in accordance with the 1940 Foreigners Act, which often necessitates a bribe.<sup>23</sup> The government also placed Rohingya who refused to be identified as Bengali in temporary camps (in reality de-facto detention centres) for indefinite periods.<sup>22</sup> A further 36 000 Rohingya ended up living in villages surrounded by hostile neighbours who restricted access by humanitarian agencies.<sup>26</sup> Indicative of the Myanmar Government's attitude towards the Rohingya victims of 2012–13 violence, an October, 2013, government development plan for Rakhine State expressed concern about so-called “Bengalis whose population is increasing” through “ways which are not suitable with cultural norms of human beings”.<sup>27,28</sup> Consequently, the Myanmar Parliament passed a series of race and religious protection laws in early 2015 that extended Rakhine's anti-Rohingya



**Figure 2: Timeline of events in Rohingya and Myanmar history**  
MSF=Médecins Sans Frontières. IDP=internally displaced person.

**Panel: 1982 Myanmar Citizenship Law****Full citizens**

- Members of named “national races”: including Rakhine, Burman, Chin, Kachin, Karen, Karenni, Mon, and Shan
- Or those who can provide evidence their ancestors settled in the country before 1823 (ie, before British colonial rule)

**Associate citizens**

- Qualify for citizenship under 1948 law, but cannot provide evidence of pre-1823 ancestors in Burma and no longer qualify under 1982 law

**Naturalised citizens**

- Foreigners who can provide evidence that they or their parents entered and resided in country before independence in 1948
- Or anyone, whose one parent holds any of the three types of citizenships

Source: Pyithu Hluttaw Law No 4 of 1982 (Burma Citizenship Law).

	Non-citizens	Refugees*	Asylum seekers and other persons of concern
Myanmar <sup>5,12</sup>	1 230 000	..	..
Bangladesh <sup>29</sup>	..	31 000	230 000
Malaysia <sup>30</sup>	..	41 000	Unknown†
India <sup>31</sup>	..	8 950	2 521
Thailand‡ <sup>12,29</sup>	..	738	28 555
Indonesia <sup>30</sup>	..	687	27
Total	1 230 000	82 375§	235 403§

The cumulative total is 1 547 778. Table does not include Rohingya who may be living in Saudi Arabia, Pakistan, and Australia for whom reliable figures are unavailable. \*Those granted UN refugee status and thus protected from refoulement. †Estimated to be up to 40 000. ‡Thailand asylum seeker figures includes 2800 Rohingyas which the European Union estimates are in detention centres. §Many Rohingyas outside Myanmar are willing to return to Myanmar if their safety, and rights are guaranteed.

**Table 2: Rohingya population as of June, 2015, by country of residence**

policies to the entire nation, including limits on the number of children, frequency of births, and inter-religion marriages or conversions.

### Enumeration Within Myanmar

As of 2014, there are more than 1·2 million Rohingya within Myanmar (table 2), representing more than a third of the population of Rakhine State and more than 2% of the entire Myanmar population of 51·4 million people.<sup>5</sup> Collection of data about the Rohingya population is difficult, because the Myanmar Government does not recognise the concept of the Rohingya people as a distinct and legitimate group.<sup>5</sup> In April, 2014, Myanmar completed its first population

census in three decades, which excluded the Rohingya population, explaining: “In Rakhine State, members of some communities were not counted because they were not allowed to self-identify as Rohingya.”<sup>5</sup> However, this census did estimate a so-called non-enumerated population in Rakhine State of 1·09 million people on the basis of updated village maps. The non-enumerated methodology does not account for a further 140 000 internally displaced Rohingya living in camps after fleeing the 2012–13 violence.<sup>12,16,32</sup>

**Outside Myanmar**

More than 300 000 Rohingya live outside Myanmar (table 2).<sup>10,33</sup> Bangladesh, Malaysia, India, Thailand, and Indonesia host most of the Rohingya who have fled. None of these nations is a signatory to the 1951 Convention Relating to the Status of Refugees.<sup>34,35</sup> Three of every four Rohingya outside Myanmar have not received refugee status protection from the UN, rendering them vulnerable to abuse by state authority. The UN estimates that 10 million people are stateless worldwide,<sup>6</sup> making the 1·5 million Rohingya across southeast Asia account for more than one out of every seven stateless individuals.<sup>5</sup>

Bangladesh, which hosts the largest number of Rohingya asylum seekers, ceased conferring refugee status on Rohingya after a 1992 refoulement agreement with Myanmar.<sup>11</sup> Refoulement is defined as the returning (or refouling) of a refugee “to the frontiers of territories where his life or freedom would be threatened on account of his race, religion, nationality, membership of a particular social group or political opinion”.<sup>34</sup> Between 1992 and 2005 more than 235 000 Rohingya in Bangladesh were sent back to Myanmar, a large proportion of them involuntarily.

However, despite this event, more than a quarter of a million Rohingya now reside in Bangladesh. Only two official refugee camps have been allowed to exist, housing 31 000 Rohingya to whom the World Food Program and UN High Commissioner for Refugees (UNHCR) are permitted to provide aid.<sup>36</sup> The remaining 90% of Rohingya in Bangladesh live in unofficial refugee camps out of reach of humanitarian assistance.<sup>11</sup>

**Human rights status****Human rights in Rakhine State**

Myanmar is a low middle-income country with a gross domestic product of US\$1240 per person.<sup>37</sup> Rakhine State is one of the poorest in Myanmar, having long suffered neglect and underdevelopment.<sup>16</sup> Nearly half of Rakhine residents live in poverty, compared with a quarter nationally.<sup>38</sup> Consequently, even non-Rohingya residents of Rakhine State lack facilities and basic services. This economic deprivation has further exacerbated human rights violations of Rohingya, because deprivation of economic and social goods deriving from wilful omission on the part of a State could be considered a violation of human rights,<sup>39</sup> and in the context of the explicit civil and

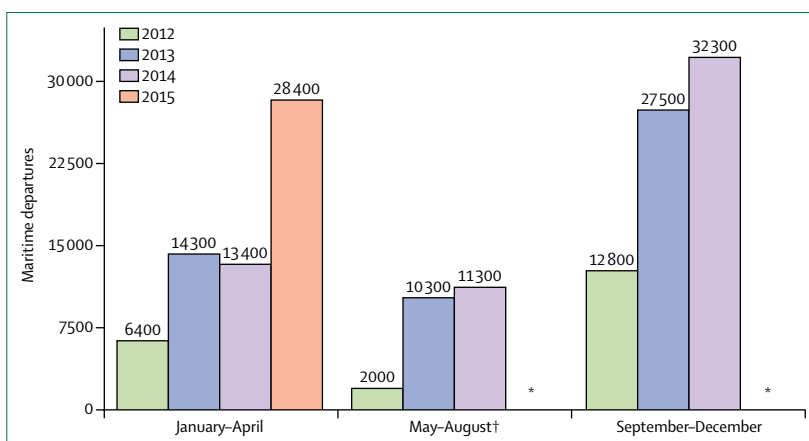
political oppression of the Rohingya in Myanmar would constitute a violation of the right to dignity.<sup>40</sup>

### Restriction on freedom of movement in Myanmar

During the UN's July, 2014, visit to Rakhine State, it "found the situation deplorable" for the Rohingya population who experience severe legal restrictions, including a ban from travelling or working outside their village without previous authorisation (which requires prohibitive fees of up to US\$1167).<sup>16,28,29</sup> Even with authorisation, Rohingya individuals must report to authorities upon arriving at their destination.<sup>19</sup> The UN found that Rohingya who violate Myanmar's restrictions are subject to years of imprisonment, disappearances, torture, forced labour and displacements, and sexual violence.<sup>16,19,36</sup> The fear of movement without authorisation is so pervasive that Rohingya living in the path of tropical storms are often too scared to relocate.<sup>32</sup> Consequently, Rohingya face severe obstacles to reaching health-care facilities, even for emergencies.<sup>32,41</sup> Those who do arrive at government facilities are unable to afford health care and are subject to discrimination by staff.<sup>42</sup> Both the UN and the US Congress have noted that legal restrictions on freedom of movement for the Rohingya people severely affect basic rights to access livelihoods, food, water, sanitation, and education.<sup>10,16</sup> In Bangladesh, Rohingya are forbidden to leave camps without official permits and are prohibited from seeking employment outside the camps.<sup>31</sup> Across southeast Asia, Rohingya who are able to travel outside their camps (and past government checkpoints) do so to work as daily-wage labourers earning less than \$2 per day, compared with the minimum wage in this region ranging from \$2 to \$8 per day.<sup>11,43</sup>

### Restrictions on humanitarian agencies

A Myanmar Government report<sup>44</sup> noted that, in the Rohingya-predominant northern region of Rakhine State, both Maungdaw and Butheetaung townships has only one physician each (serving 158 000 people combined), by contrast with the one physician per 681 population in the non-Rohingya-predominant Sittwe region of Rakhine State.<sup>13</sup> Humanitarian agencies such as Médecins Sans Frontières have been the main providers of the limited primary health care available to Rohingya in Myanmar.<sup>42</sup> The 2012–13 violence further limited access to food, health care, and education, with humanitarian agencies unable to access IDP or detention camps, or Rohingya villages surrounded by hostile neighbours.<sup>41</sup> In March, 2014, humanitarian aid organisations had to reduce their operations because of intimidation and attacks on health-care staff led by Buddhist monks accusing them of preferential treatment towards Rohingya (figure 2).<sup>29,45</sup> Up until February, 2014, Médecins Sans Frontières had six primary care clinics, 20 malaria clinics, and three HIV/AIDS clinics in Rakhine State,<sup>42</sup> until they were ordered by the government to suspend all activities—leaving a large health-care void for those Rohingya dependent on the



**Figure 3: Maritime departures from the Myanmar–Bangladesh border for each 4-month period between January, 2012, and April, 2015**

Data are from the United Nations. \*Myanmar cracks down on maritime departures. †Rainy season.

organisation as the sole provider of medical care.<sup>46</sup> Only after 9 months of suspension was Médecins Sans Frontières allowed to return to Rakhine State.

### Dangerous maritime crossings and human trafficking

With persecution in Myanmar, and precarious living conditions and threat of refoulement in Bangladesh, Rohingya now rely on human traffickers to undertake dangerous and weeks-long maritime crossings in small, poorly constructed boats under treacherous conditions to seek shelter in Malaysia, Thailand, Indonesia, or across land in India.<sup>16,30</sup> Between January, 2012, and April, 2015, 159 000 maritime departures occurred from the Myanmar–Bangladesh border (figure 3).<sup>16,47</sup> Between 2014 and mid-2015, at least 1100 people died during these maritime crossings, from starvation, dehydration, beating by crew members, or sinking of entire boats.<sup>30,48</sup> This figure is equivalent to two deaths daily of Rohingya men, women, and children during these crossings.<sup>48</sup> The UN estimates that hundreds more have died in smuggling camps across southeast Asia, or have been sold into slavery by human traffickers if families fail to pay unexpected fees or ransom, often up to US\$1800–2100 or more than the entire Myanmar per capita gross domestic product.<sup>47,49</sup> In addition to sex trafficking and forced begging, Rohingya are sold to Thailand's commercial fishing sector.<sup>50</sup> In 2014, between 1800 and 2800 Rohingya were held by Thailand after they were arrested trying to cross into Malaysia.<sup>29,30</sup> In Malaysia, the experience of Rohingya individuals has been relatively more favourable because they are allowed refugee status by UNHCR, and efforts are ongoing to provide them with work permits.<sup>51</sup>

Despite the death toll, available data suggest that the rate of Rohingya fleeing by sea had more than doubled by the first 4 months of 2015, compared with the same period in the previous year (figure 3). This escalation, which was quickly shut down by border authorities, might be a marker of the worsening situation for the

Rohingya people. In May, 2015, up to 8000 Rohingya were stranded in drifting boats due to authorities in Thailand, Indonesia, Bangladesh, and Malaysia refusing them permission to enter these countries.<sup>1</sup> Since then, these nations have agreed to take in these Rohingya, provided they are resettled to other UN member nations within 1 year. The exact number of Rohingya who made the landings is not known. Myanmar in turn increased efforts to bar Rohingya from fleeing, but without providing solutions for their plight.<sup>1,52</sup>

### Health status

There is a grave absence of vital registry data or census data relating to the Rohingya, which is in of itself a sign of negligence on the part of the State. Furthermore, the intermittent and partial nature of aid agencies', such as MSF, attempts to care for the population in Myanmar is because of State interference, including the long time lapses between one set of observations and another. Therefore, it is very difficult if not impossible to compile a systematic overview of the health status of the Rohingya population in any location, including in Myanmar. However, we have gathered relevant data from different observers and health-care providers to present an overall picture of the health circumstances of the Rohingya population in Myanmar, and adjacent host countries.

### Children and infants

Complex emergencies are situations where political and military policies lead to a vulnerable community's mortality substantially increasing above the population.<sup>2</sup> Rohingya children and infants in Myanmar face severe obstacles to health and nutrition. Mortality in children younger than 5 years in the Rohingya-predominant northern region of Rakhine State is 224 per 1000 livebirths in Butheetaung township and 135 per 1000 livebirths in Maungdaw township,<sup>14</sup> compared with 77 per 1000 livebirths in the non-Rohingya-predominant Sittwe region of Rakhine State.<sup>14</sup> Outside Myanmar, the experience of Rohingya children and infants is also concerning. Among Rohingya refugees in Malaysia, 18% of Rohingya newborns had low birthweight (<2.5 kg),<sup>51</sup> more than 60% higher than across Malaysia generally.<sup>53</sup> Although Rohingya in Malaysia have greater access to health care, compared with Rohingya in Myanmar and other southeast Asian nations, 12% of Rohingya children in Malaysia have never been immunised,<sup>51</sup> which is a rate twice as high as other children in Malaysia.<sup>53</sup> Rohingya children in Malaysia have high rates of asthma and diarrhoea, and less than half received physician-guided care in the previous 30 days for fever or flu.<sup>51</sup> Four in every five households live on less than \$1.50 per day, despite supporting an average of nearly four children. Because Rohingya in Malaysia are granted refugee status and access to housing, these children's nutritional status is probably more favourable than that of Rohingya children in other host nations.

### Malnutrition

Already born with low birthweight, poor nourishment continues throughout the life of infants born into Rohingya families. Wasting, or low weight for height, is caused by acute malnutrition and is a strong predictor of mortality among children younger than 5 years.<sup>54</sup> The prevalence of acute malnutrition in the Rohingya-predominant northern region of Rakhine State is 24.5–26.5%, far exceeding the 15% rate of childhood malnutrition at which WHO considers the entire population to be critical (ie, in danger) and in need of food aid.<sup>11,14</sup> Global acute malnutrition in Rohingya areas is also higher than the 14% reported in the non-Rohingya-predominant Sittwe region of Rakhine State.<sup>14</sup> During the hunger gap—the period during the rainy season when food stocks dwindle—Médecins Sans Frontières clinics in Rakhine State see more than 1200 children weekly who meet criteria for severe or moderate malnourishment.<sup>42</sup> As many as 40 malnourished children are enrolled every 3 weeks into feeding programmes by aid agencies.<sup>46</sup> The crisis in malnutrition is further evidenced by the UN's documentation of more than 200 cases of beri-beri among all Rohingya arriving in Malaysia since 2014.<sup>30,48</sup> In 2013, the UN screened 77000 Rohingya children younger than 5 years living in Rakhine State, and found that 30% were in need of micronutrient supplementation.<sup>26</sup>

In Bangladesh, nearly 20% of Rohingya children suffer from wasting<sup>55</sup>—only slightly improved since 1992, when wasting was noted in 40% of newly arriving Rohingya children.<sup>21</sup> Stunting, or low height for age, is caused by chronic malnutrition and exists among 60% of Rohingya child refugees in Bangladesh,<sup>56,57</sup> a rate 50% higher than the rest of the Bangladesh population (which itself has high rates of malnutrition).<sup>55</sup>

### Waterborne illness

Poor nutrition predisposes Rohingya children to worse outcomes from infectious diseases, which was demonstrated during the 1978 mass Rohingya exodus to Bangladesh.<sup>58</sup> In the first 10 months, 60% of all visits to clinics in a Bangladeshi refugee camp for Rohingya were due to diarrhoea or dysentery. Diarrhoeal illnesses were responsible for more than 10% of the 10000 deaths recorded in the first 8 months of the 1978 exodus, second only to malnutrition.<sup>59</sup> The crude mortality rate was 1.82 deaths per 10000 individuals per day,<sup>59</sup> nearly twice the threshold (one death per 10000 people per day) for the acute phase of a complex emergency.<sup>2</sup> In modern times, nearly half of households in the Rohingya-predominant northern region of Rakhine State lack access to sanitation facilities.<sup>14</sup> Conditions have worsened since the 2012–13 violence, and Rohingya in IDP camps have only one latrine per 37 individuals.<sup>14</sup> This figure is half of the current suggestion of one latrine per 20 individuals outlined by the Minimum Standards in Humanitarian Response to minimise waterborne illnesses.<sup>60</sup> As a result, diarrhoeal illness affects 40% of

Rohingya children younger than 5 years living in IDP camps.<sup>41</sup> Rohingya children therefore have a five-times greater prevalence of diarrhoeal disease than other children in Rakhine State.<sup>40</sup>

In Bangladesh, adequate latrine facilities are only available in two state-sanctioned Rohingya refugee camps.<sup>36</sup> However, in the unofficial camps where 90% of Rohingya in Bangladesh live—with few latrines and open defecation—more than half of Rohingya children had suffered diarrhoea within the past 30 days.<sup>11</sup> Rohingya children therefore have a ten-times higher rate of diarrhoeal disease than other children across Bangladesh.<sup>61</sup> Similarly, in Malaysia, a fifth of Rohingya children had diarrhoea during the previous month,<sup>31</sup> an incidence four-times higher than other children younger than 10 years across Malaysia.<sup>62</sup> A similar trend exists across Rohingya camps in southeast and south Asia, including in camps in India (figure 4) where one latrine is shared by 25–30 people.<sup>31</sup>

Myanmar is a malaria-endemic nation with 60% of population at transmission risk,<sup>63</sup> specific data for the Rohingya people are lacking.<sup>37</sup> In addition to waterborne illness, Rohingya are at risk of tuberculosis due to crowded conditions and poor nutrition. Myanmar is among the top 20 countries worldwide for number of tuberculosis cases,<sup>6</sup> with an incidence in 2013 of 373 cases per 100 000 population.<sup>64</sup>

### Obstetric care

The Rohingya people face barriers to marriage, prenatal and obstetric care, and registration of newborn babies. Rohingya couples must obtain a licence for marriage that can take nearly 2 years to obtain, involving a check of citizenship with a fee of up to \$100.<sup>42</sup> Travel restrictions severely limit access to maternal and fetal health care, creating an environment of discrimination at government health clinics.<sup>10,44</sup> The maternal mortality ratio in the Rohingya-predominant northern region of Rakhine State is 380 per 100 000 livebirths, compared with 178 per 100 000 livebirths across Myanmar.<sup>14</sup> Médecins Sans Frontières clinics in Rakhine State cater to 700 000 people, most of whom are Rohingya, and provide 490 women with antenatal care each week.<sup>45</sup>

After the 2012–13 violence, many Rohingya sought refuge in IDP camps, where their movement was further restricted by state authorities. When the UN visited Rohingya camps in July, 2014, it documented “deaths in camps owing to the lack of access to emergency medical assistance and owing to...pregnancy-related conditions”.<sup>16</sup>

In addition to trying to drive out the Rohingya population from the country, the Myanmar Government is attempting to restrict Rohingya numbers from growing through natural increase within Myanmar. A 2013 Myanmar government report on economic development of Rakhine state called on “the parliament to enact a law...in order to prevent the population of illegal Bengalis whose population are increasing.”<sup>65</sup> Rohingya reproductive rights are violated by a two-child policy,<sup>19,40</sup> requiring Rohingya



Figure 4: Rohingya refugee camp in New Delhi, India  
Reproduced by permission of Syed Saad Mahmood.

women confirm status as birth mother by breastfeeding infants in the presence of Myanmar soldiers.<sup>19,66</sup> Rohingya women must also maintain a minimum of 36 months between pregnancies. Not surprisingly, one in seven Rohingya women in northern Rakhine State has undergone at least one abortion, and of these women a quarter had multiple abortions.<sup>19</sup> Most of these abortions were done without qualified professionals and in unhygienic conditions.<sup>33</sup> Rohingya children born in Myanmar are not eligible for citizenship and face restrictions on birth registration at government hospitals, which contrasts with the 72% rate of birth registration across Myanmar as a whole.<sup>16,37</sup> As of 2013, up to 60 000 unregistered children are estimated to be present in Rakhine State, according to government records.<sup>14</sup>

### Actions needed

Over the years, due to the efforts of countless observers and interlocutors from across the spectrum of the international community and humanitarian organisations, Myanmar's treatment of the Rohingya people is now well documented. The catalogued infringements of human rights stand as unequivocal violations of all major provisions of international human rights law, including the right to life, the right to home, and the right to freedom of movement. The Myanmar Government is an outlier in that it has not signed or ratified the great majority of these treaties; however, it is bound by international customary law to uphold their provisions. Defiance, dismissal, and indifference have for decades characterised Myanmar's response to international criticism. It has received billions of dollars in foreign aid and is experiencing a lifting of sanctions that have themselves proved ineffective. The resulting timidity of international action has permitted the Myanmar Government to continue targeting the Rohingya people.

What bears further discussion is that the Myanmar Government's actions against the Rohingya people could warrant the charge of genocide. Myanmar has not signed or ratified the Rome Statute (on atrocity crimes, including genocide, crimes against humanity, and war crimes) nor has it joined the International Criminal Court. It ratified the 1948 Genocide Convention (in 1956) but inserted reservations on those provisions pertaining to jurisdiction and requirement to intervene.<sup>67</sup> The Genocide Convention contains within it, under Article II, a list of actions that independently constitute acts of genocide, and the brutal harassment by the government of the Rohingya people observed over the years could arguably be intended to create "deliberately inflicting group conditions of life calculated to bring about its physical destruction in whole or in part" as per Article II (c). Because of the tight control the regime exercises over access to information of all kinds it would be difficult to establish the government's "intent" in the complex legal language of the Convention. Increasingly, however, the international legal community regards repetitive patterns of widespread group killing and oppression of identified and stigmatised groups as a proxy for inferring intent.<sup>68</sup> The part played by the Myanmar Government in restricting Rohingya reproductive rights, and in the high morbidity and mortality of the Rohingya people could arguably be advanced as a charge of genocide, or at the very least as ethnic cleansing—also an atrocity crime within the Rome Statute. We echo calls for the UN to establish a commission of inquiry on the human rights situation in Rakhine State of Myanmar.<sup>22</sup>

In March, 2016, Aung San Suu Kyi's party joined the Myanmar Parliament after a landslide win in the elections of November, 2015. Her party won 60% of seats in the upper house, and 50% in the lower house, making it the largest party in parliament despite 25% of seats being reserved for unelected military appointees. She faces the political challenge of strengthening Myanmar's fragile democratic institutions while working with the military and Buddhist nationalists. Notably, voters seem to have rejected Buddhist nationalist parties who led the communal violence targeting the Rohingya people. Yet, a few days after her party's win, when asked about the Rohingya people, her aide and senior party leader clarified that "we have other priorities", and repeated the military's call that the Rohingya population must be "returned" to Bangladesh.<sup>69</sup> This sentiment seems consistent with Aung San Suu Kyi's own silence on the treatment of Rohingya, her reluctance to use the term Rohingya, and her decision to not field any Muslim candidates in the elections.<sup>70</sup> In May, 2016, as the newly appointed functional head of Myanmar government, she met with the US Ambassador to Myanmar and advised him to not use the term Rohingya.<sup>69</sup> Although her party did not create this crisis, it is now hers to address. In August, 2016, her government established a commission on Rakhine state, chaired by fellow Nobel laureate Kofi Annan, which does not include any Rohingya

commissioners and whose mandate does not mention the Rohingya.<sup>71</sup> Aung San Suu Kyi must repeal Myanmar's race and religion protection laws to end the violation of Rohingya rights. Rakhine State, including its IDP and detention camps, must be opened up to international humanitarian agencies and journalists. Rohingya must be freed from these camps and allowed to return to their homes and businesses with provision of security for all religious minorities on Myanmar soil. Laws outlawing hate crimes and hate speech towards religious minorities are in urgent need.<sup>72</sup> On Dec 29, 2014, the UN General Assembly adopted a resolution calling for the Myanmar Government to provide "equal access to full citizenship for the Rohingya minority".<sup>9</sup> We echo this call to abolish the discriminatory 1982 law, thus providing all residents of Myanmar citizenship and freedom from statelessness.

During 2016, we estimate that a further 1000 Rohingya will die crossing the Bay of Bengal and Andaman Sea, and an even larger number will die at the hands of human traffickers as they try to escape persecution in Myanmar. Most of the 1.5 million Rohingya worldwide will continue to suffer a cycle of vulnerability to poor health outcomes, starting with low birthweight, childhood malnutrition, diarrhoeal illness and other infections, and continuing with barriers to reproductive care. In view of the political climate in Myanmar, it is unlikely the ongoing outflow of Rohingya leaving Myanmar–Bangladesh by sea will abate in the near future. Thailand, Indonesia, and Malaysia will need to continue accepting Rohingya arriving by boat, in order to avoid repeating the humanitarian crisis of May, 2015, when boats were turned away and Rohingya were stranded at sea.<sup>1</sup> Efforts to resettle Rohingya must also be continued by the UN's member nations. However, the durable solution for the Rohingya crisis lies within Myanmar, and with the newly elected parliament that has the opportunity to end a historical suffering.

#### Contributors

SSM did the literature search, interpreted data, and wrote the first draft of the Review. All authors contributed to the writing of the Review, and have read the final submitted version, agree with the result and conclusions, and confirm that they meet criteria for authorship.

#### Declaration of interests

We declare no competing interests.

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