



## THE HEALTH OF FARM WORKERS — SO MUCH DIFFERENT, SO MUCH THE SAME

Occupational health hazards of agricultural workers have been recognised since the 16th century,<sup>1</sup> but despite the early recognition of these hazards, agriculture has lagged behind other industries in improving workplace health and safety. Measured by both fatal and non-fatal occupational injuries, agriculture is one of the two or three most hazardous major occupations.<sup>2</sup> However, injuries are only the tip of the iceberg; the health hazards of agriculture extend to almost every organ system, with documented risks of the respiratory, cardiovascular, dermatological, psychological, neurological, urological, musculoskeletal and reproductive systems, in addition to communicable and malignant diseases.<sup>3,4</sup>

Both owners (farmers, managers) and farm workers are exposed to substantial risks of injury and illness in agricultural work, which is not the case in most industries. Nevertheless, efforts to improve health and safety in agriculture have been limited by numerous factors. These include the perception that farmers are healthier than the general population ('the agrarian myth'), the widely dispersed nature of farming, the lack of unions among agricultural workers, the absence of occupational health and preventive medicine programmes in agricultural areas, and the perception among some farmers that hazards are inevitable in agricultural work.<sup>4</sup>

All of these conditions are exacerbated among farm workers, particularly those who migrate for work (migrant workers) or work only part of the year (seasonal workers). The plight of farm workers is made worse by conditions common to migrant work. These conditions include poverty, lack of education, lack of adequate housing, separation from families and associated psychosocial health problems, and limited access to health care.<sup>5</sup> Migrant workers are often from immigrant groups and may suffer social and legal discrimination in addition to the effects of poverty. Widespread concerns about social injustice rarely include migrant farm workers, who are often seen more as tools of agricultural production than as members of society.

A literature review in 1990 found few studies of the health of migrant and seasonal farm workers.<sup>6</sup> This is in part because of the difficulty in conducting epidemiological studies in this population,<sup>7</sup> and in part because of the lack of resources and attention to this under-served population. While there has been a significant increase in funding for agricultural health in the USA over the past decade, most of this funding has been directed towards family farms. Nevertheless, the few studies that have been done document the breadth of health hazards to

farm workers, although what is not known about the occupational hazards of farm workers is substantially greater than what is known. The situation is made worse by the wide variety of local conditions and agricultural practices that affect farm work and its health hazards differently in different areas of the world.

In the USA the annual incidence rate for occupational injuries among farmers is approximately 10%, and recent work suggests similar rates for farm workers.<sup>8,9</sup> Data do not exist on rates of cumulative musculoskeletal injuries, but these are among the most frequent complaints of farm workers in health clinic surveys, and would be expected to be high with the repetitive physical demands of farm work.<sup>10</sup> Studies in California have documented increased rates of respiratory and dermatological disease among farm workers,<sup>11-13</sup> and a study in South Carolina found an increased prevalence of tuberculosis among farm workers in that state.<sup>14</sup> The burden of pesticide illnesses also falls substantially onto farm workers in the USA.<sup>15</sup>

In the USA poverty and other barriers to health care among farm workers results in a lack of preventive health care for this population. This was most dramatically demonstrated in a study of farm worker children in McFarland, with 71% of the children found to have a medical problem requiring referral.<sup>16</sup> Studies of migrant health clinics similarly show a much lower proportion of visits for preventive care than in non-farm worker clinics, and mortality from infectious disease is higher among farm workers than among non-farm worker controls in the USA.<sup>17</sup>

This issue of the *SAMJ* provides important new data on the health status of farm workers in South Africa. Until recently little attention was given to the health status of this population, as had been the case in the USA. Studies among these workers are complicated by many factors and the authors are to be congratulated on undertaking these difficult but important investigations. While the data remain sparse for this large group of workers, the findings reported are striking.

In many ways the health status and occupational health hazards of these workers are similar to those of agricultural workers around the world, but in many ways these problems reflect the unique ethnic composition of these workers, the legal and social history and traditions of the area and the agricultural practices of the region. Factors common to farm workers in the USA and South Africa include low wages and associated poverty, and poor housing conditions. The range of occupational health hazards is also similar, with dermatitis, eye, respiratory and musculoskeletal problems, traumatic injuries, exposure to the elements and chemical injuries commonly reported in both populations. Some of the observed rates for these problems among South African farm workers are striking, such as 81% of sugar cane workers reporting an acute traumatic injury in the past year, and 93% some type of musculoskeletal problem. These tragic rates are significantly higher than in the USA, and they call for immediate and





substantial preventive efforts.

In other ways the health problems highlighted in this issue are unique to this region of the world. This is perhaps most dramatic for the 'dop' system, a holdover from colonial times in the Cape region in which partial payment for farm work is given in alcohol. The dop system was found to exist in 9.5% of farms in the Stellenbosch region of South Africa by te Water Naude and co-workers. While the actual prevalence of this antiquated and pernicious practice is striking and its impact on farm worker health is evident. These effects include both the direct acute and chronic effects of alcohol on the workers, and a range of secondary effects including fetal alcohol syndrome, traumatic injuries, interpersonal violence and a range of social disruptions. The high rate of physical assaults and abuse of farm workers, including from employers, is another dramatic finding reported in this issue. Finally, an 81% prevalence of tobacco use observed by London and co-workers among deciduous fruit farm workers is another example of local conditions and practices reflecting the region and culture. It would be interesting to know if this prevalence differs from the prevalence among non-farm workers of similar ethnicity. We have observed smoking prevalences of under 30% among California Hispanic farm workers, similar to the rates among urban Hispanics in the state.<sup>11</sup>

Farm workers represent a seriously and tragically underserved worker population. Their health is adversely affected by occupational hazards in agriculture, migrancy and social discrimination, and poverty. While good epidemiological data are lacking on the cumulative impact of these factors, there is little question that they result in substantial morbidity and mortality in this population. This issue of the *SAMJ* performs an important service in calling attention to the desperate condition of these workers in southern Africa. It is time for increased attention, resources and preventive efforts to be applied to this population, both in southern Africa and around the world.

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## FARM WORKERS IN SOUTH AFRICA — THE CHALLENGE OF ERADICATING ALCOHOL ABUSE AND THE LEGACY OF THE 'DOP' SYSTEM

Despite the priority given to the redress of past inequity by current primary health care initiatives, farm workers remain a marginalised group whose needs appear to be overlooked consistently in many policy documents emanating from various government departments.<sup>1-3</sup> There are approximately 1.1 million workers and their families on commercial farms in South Africa,<sup>4</sup> and agriculture is a major contributor to the Western Cape economy.<sup>5</sup> Despite an overall decline in the past 20 years, agriculture remains one of the largest single employment sectors in South Africa today,<sup>4</sup> particularly for women.<sup>6</sup>

Conditions for workers on many South African farms remain poor, despite a gradual modernisation of production in South African agriculture. For example, a 1996 survey of farms in Mpumalanga and Northern Province found that only 34% of farm workers had running water in their homes, 27% had no access to toilet facilities of any kind, and less than 50% had access to electricity.<sup>7</sup> Farm workers' incomes are consistently lower than the incomes of urban unskilled workers<sup>6</sup> and a 1995 household health survey found that more than two-thirds of farm worker families in the Western Cape generated a total income of less than R900 per month.<sup>8</sup> Education levels of farm workers have been shown to be low in a number of studies, suggesting that on average they have about 5 years of schooling.<sup>9-11</sup> Illiteracy is common, particularly among older workers, as data in this issue of the *SAMJ* show.<sup>12</sup> Poor education