Determinants of common health problems among flowers farm workers in Timau, Imenti North District

By James Gitonga

Flower farming in the world has grown considerably since early 1980s. Kenya boasts the most successful flower industry in Africa and there has been rapid expansion in this industry in Kenya over the last few years.

This industry in Kenya is becoming one of the top earners of foreign exchange and a leading source of employment in the agricultural sector.

Presently there are over 500 producers / exporters growing cut flowers in Kenya. Production is largely concentrated on some 60 or so medium to large scale flower operations of which the 25 largest producers account for over 60% of total exports. The larger flower farms range in size from 20 to over 100 hectares under production with labour force ranging from 250 — 6000 workers/farm and by the year 2008 horticulture industry in Kenya was employing 1.5 million people directly and 4.5 million indirectly dependent on it.

However, floriculture being a relatively new industry in this country, not so much research on the health status of the workers in this industry has been carried out. This means that the morbidity pattern of the workers in floriculture industry may not be known therefore unavailable for proper planning of the health needs of these workers.

Objective: This study broadly aimed at assessing the common health problems and their determinants among flower farm workers in Timau division of Imenti North District and specifically to describe the socio-demographic characteristics of the flower farm workers, determine the prevalence of occupational health problems among the workers and to assess the safety of working practices on the farms.

Design: This was a descriptive cross-sectional study which involved data collection by administering structured questionnaires to 372 randomly selected workers working in six sampled flower farms and review of health records of the workers in the dispensaries in these six farms.
Results: On demographic characteristics, the age of the study population ranged from 16 to 61 years for the respondents and 15-70 years from records review. The largest proportion of the workers (30%) was aged between 25 — 29 years. The education level was relatively low with 42.5% having primary school level of education. Only 4.6% of the workers had post secondary level of education.

Females were more than males with a ratio of 1.5:1 and most of these workers (84.1%) were from outside Timau area (Immigrants).

On the other characteristics, only 41.1% of the workers had been trained on the job they were doing. The study established that use of personal protective equipment was not common and the main reason (95.2%) was the unavailability of these protective equipments. The pre-placement medical examination had only been done on 21.5% of the workers. Among the health problems noted, the commonest were respiratory tract problems (42.5%), gastrointestinal problems (16.7%) malaria (14.8%) pneumonia (8.9%) injuries/accidents (6.5%) skin problems (6.5%) and eye problems (2.4%).

On statistical analysis, use of personal protective equipment was found to have a significant relationship with the health problems of the workers in that those workers who were using personal protective equipment were less likely to have health problems as compared to those who never used these protective equipment (p=0.05).

A multinomial logistic regression was used to predict presence of health problems from the degree of adherence to safety practices. Never adhering to the safety practices was a significant predictor for presence of respiratory and gastrointestinal problems but was not a significant predictor for the other health problems.

Conclusions: Flower farms in Timau mainly engaged the labour of young men and women mostly with no education or those of primary school level. Majority of the workers were migrants in respect to Timau area having come from all over Kenya Majority of the workers lacked basic training in what they were doing and have poor adherence to safety practices at work place.
The workers were at high risk due to lack of personal protective equipment and non compliance of re-entry rules to green houses following spraying.

Respiratory problem and gastro intestinal problems top the illness list of these workers like in other areas where floriculture is done. However malaria is also a major problem for these workers.

The various effects of the work and working conditions of floriculture industry on the health of workers were not apparent to these workers in Timau.

There was very low enrollment to health care schemes such as the National Hospital Insurance Fund (NHIF) among the workers.

Lack of adherence to safety practices especially use of personal protective equipments was associated with presence of various health problems among the workers in floriculture.

**Suggestions:** Further studies should be carried out to find out if there exists a relationship between flower farming and malarial as is the case with rice farming and malaria.

**Recommendations:**

1. The flower farms should recruit workers with moderate level of education especially sprayers for them to be able to read safety instructions and understand their importance.
2. Workers should get initial training and frequent periodic trainings on their jobs and safety and be offered pre-placement and periodic medical examinations.
3. Farms management should ensure provision of adequate personal protective equipment and strictly observe re-entry time rules.
4. There should be provision of safety materials in pictorial form for the illiterate workers while ensuring that most of workers recruited have some education.
5. Flower farms’ health facilities and other health facilities within flower growing areas should be stocked with adequate and relevant medicines especially for respiratory diseases, gastrointestinal problems and malaria.