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INCREASING ACCESS TO PALLIATIVE CARE IN KENYA'S FORMER PROVINCIAL AND LEVEL 5 HOSPITALS: A SEVEN-YEAR STUDY

Dr. Asaph Kinyanjui, MB ChB, Director of Programs, Kenya Hospices and Palliative Care Association (KEHPCA),P.O Box 20854, 00202,Nairobi, Kenya, Telephone: +254 20 2729302, Dr. Debra de Silva, MD, LLB, MSc, PhD, Head of Evaluation, Kenya Hospices and Palliative Care Association (KEHPCA, debra@evidencecentre.com, Dr. Zipporah Vunoro Ali, MD, Dip. Palliative Care, Hon DUniv, Executive Director Kenya Hospices and Palliative Care Association (KEHPCA)

Corresponding author: Dr. Asaph Kinyanjui, MB ChB. P.O Box 20854, 00202, Nairobi, Kenya. Telephone: +254 20 2729302. Email: asaphkinyanjui@kehpca.org

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A. Kinyanjui, D. Silva and Z. V. Ali

ABSTRACT

Objectives: **Palliative care is a fundamental human right, but many people have no access. This study aimed to increase access to palliative care in 10 publicly funded former provincial and level 5 hospitals in Kenya.**

Design: **Progress was tracked for seven years, between 2011 and 2017. Data collected using annual hospital submissions to the Ministry of Health, surveys with more than 600 people undergoing training and interviews with 125 key informants. Quantitative data were analysed using t-tests at the 95% level of confidence. Qualitative data were analysed using narrative theme analysis.**

Setting: **Kenya**

Interventions: **The interventions included creating national guidelines, requiring hospitals to offer palliative care, training professionals, setting up clinical placement sites, supervision visits, and engaging community volunteers, traditional leaders and the media to raise awareness.**

Main outcome measures: **Number of people accessing palliative care in 10 former provincial and level 5 hospitals.**

Results: **Combining national and hospital-based initiatives increased access to palliative care. Within two years, the number of people receiving palliative care in provincial hospitals doubled. The number of people helped decreased after national support was reduced but was still five times higher than baseline (5408 in 2017 compared to 854 in 2011, 533% increase).**

Conclusion: **Resource-poor countries can increase access to palliative care. Success factors in Kenya were; government support, national coordination and empowering local hospitals and communities. Palliative care can be provided in all levels of care even in limited resource setting. Integration is sustained since services are incorporated into existing facilities and budgets.**

INTRODUCTION

According to the World Health Organisation palliative care is a basic human right and all countries should make palliative care easily accessible to all who need it.[1][2] However a study found that palliative care services were only well integrated in 20 out of 234 countries (9%) and 42% had no palliative care services at all.[6] In 2011 there were limited palliative care providers mainly community owned hospices, Kenyatta National Hospital and Moi Teaching and Referral Hospital. Thousands of patients and their families ended up suffering due to lack of palliative care providers in their regions. This study examined whether implementing national and hospital interventions would result in increase in number of provincial hospitals offering palliative care and the number of people receiving palliative care services in Kenya.

MATERIALS AND METHODS

The study used a before and after design, whereby data were collected at baseline in 2011, interventions took place between 2012 and 2015 and follow up data continued to be collected up to 2017.

Intervention: From 2012, the Kenya Ministry of Health worked with partners such as the Kenya Hospices and Palliative Care Association to increase access to palliative care in publicly-funded former provincial and level 5 hospitals. Palliative care was defined as offering physical, emotional, spiritual or psychological support to a person with a life threatening condition that aimed to improve their quality of life, not to cure them of a condition.

Interventions implemented included:

National-level interventions: Developing national palliative care guidelines in line with a World Health Assembly resolution [2] and distributing these to all hospitals and 192 workers a mandate from the Ministry of Health stating that all provincial hospitals should work towards offering palliative care making essential medications such as liquid morphine available through national supplies asking all provincial hospitals to allocate a palliative care coordinator to take responsibility for championing palliative care

Hospital strategic interventions: Awareness raising sessions for 29 county leaders annual supervision visits to hospitals by an independent team training provincial hospitals to mentor smaller hospitals. 18 sub-county hospitals were mentored over a four-year period small amounts of funding to support buying equipment or allocating a room for use as a palliative care clinic.

Hospital training interventions: Training 602 hospital workers over a four-year period including palliative care coordinators, doctors, nurses, pharmacists, support workers and administrators. These training sessions usually lasted three days, were facilitated by palliative care experts and focused on providing practical guidance about pain relief and counselling 200 awareness-raising sessions at hospitals for all staff cadres lasting one to two hours, often at lunch time. About 3000 hospital workers took part over a four-year period distributing posters, books and resources setting up each provincial hospital as a centre of excellence to provide clinical placements in palliative care. To become a centre of excellence, hospitals had to meet nationally approved criteria. Clinical placements were offered to staff from smaller district hospitals and lasted one week. 55 workers took part in clinical placements over a four-year period.

Community interventions: Media stories to raise awareness in the community training for (volunteer) community health workers so they knew when to refer people for palliative care. 237 community health workers took part in three-day training sessions over a four-year period 533 members of the public were sensitised at community events

The outcomes of interest were: The number of provincial hospitals providing palliative care services, the number of people receiving care in palliative care clinics in provincial hospitals quantity of liquid morphine dispensed knowledge and confidence of hospital and community workers in providing palliative care

DATA COLLECTION METHODS

The collected data before, during and after the national intervention programme. The study did not have a control group because the initiative was country-wide. Formal ethical approval was not required in Kenya for this type of study.

The following methods were used to collect data: monthly collection of statistics from 10 provincial hospitals, surveys and knowledge tests completed immediately before and after training sessions. Pre-test surveys were available for 602 people and post-test surveys from 525 people (response rate 100% and 87% respectively) annual and one-off interviews with 125 key stakeholders such as Ministry of Health officials, programme team members, palliative care coordinators and staff from 10 regional hospitals, traditional healers and community leaders and community volunteers surveys from people attending clinical placements immediately before and after placements and follow-up interviews with those who completed placements one year later to see how changes were implemented in practice participant observation during 60 mentoring visits, training sessions and advocacy meetings

ANALYSIS

Quantitative data were analysed with frequencies and two-sided t-tests at the 95% level of confidence ($p < 0.05$) using the Statistical Package for the Social Sciences. Qualitative data such as interview transcripts were analysed using grounded theory. This article focuses on the quantitative findings.

RESULTS

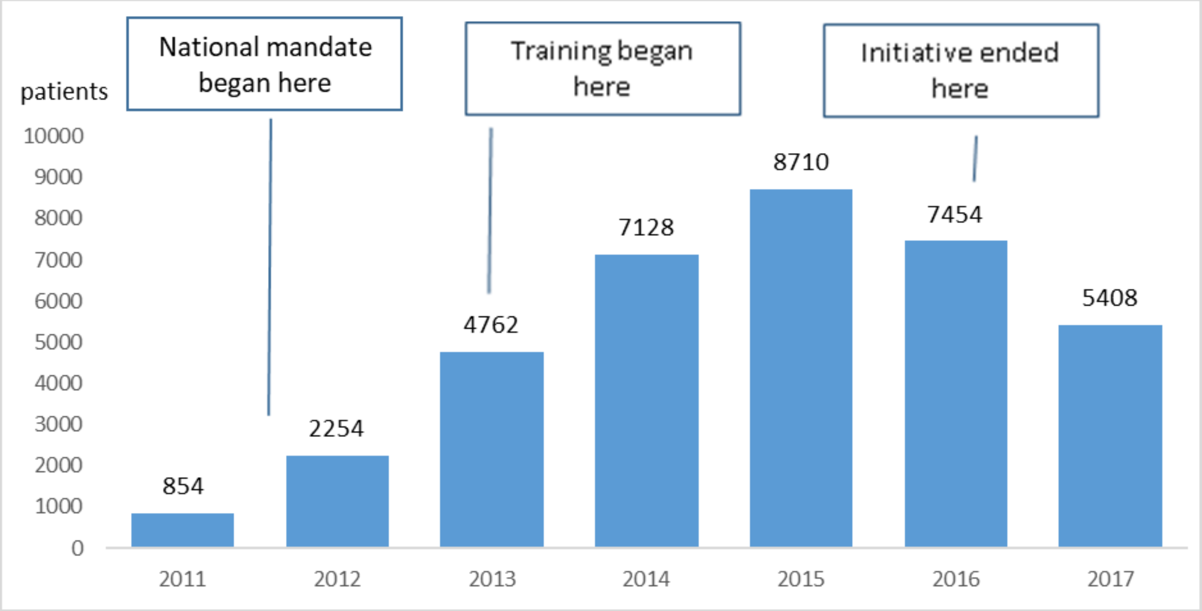
Impact on access to palliative care: Over the four years of implementation, there was an increase in the number of provincial hospitals offering palliative care and the number of people accessing palliative care in these hospitals. This improvement remained at follow-up two years after the programme ended, though there was a decrease in the number of people supported.

The proportion of provincial hospitals offering palliative care increased from 20% at the beginning 100% at the end (statistically significant change, $p<0.05$). Two years after the end of the programme, 100% of provincial hospitals continued to offer palliative care. These hospitals were also acting as clinical placement sites for medical and nursing diploma programmes, running regular continuing medical education sessions about palliative care for staff and mentoring 18 smaller hospitals in the same regions to help them set up their own palliative care units.

Figure 1 shows that there was a steady increase in the number of people seen in the palliative care units of provincial hospitals, with the number more than quadrupling over the four year period compared to the baseline year.

Figure 1

Number of people receiving palliative care at 10 provincial hospitals in Kenya 2011-2017



Note: These data are for people receiving palliative care in provincial hospital palliative care units, based on official hospital submissions to the Ministry of Health. From the end of 2016 there was a health workers strike that affected service delivery. The numbers above are largely for adult patients. Up until 2014, there were 0 children recorded as receiving palliative care. In 2014, 200 children received palliative care. In 2015, 483 children received palliative care and in 2016 426 children received palliative care. These numbers are included in the total figures above.

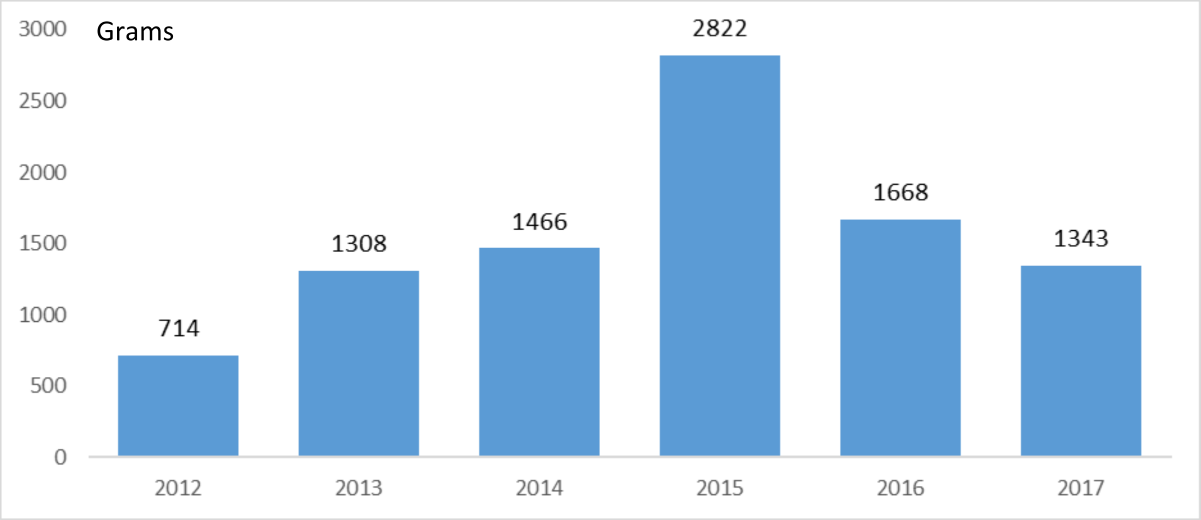
The number of people seen in palliative clinics increased from 854 before the programme to more than 5,000 people per year after the programme. The number of children receiving palliative care in provincial hospitals was recorded as zero up until 2014 when training in children's palliative care was provided. The number of children provided with palliative care then increased to 200 in 2014, and 483 in 2015 and 426 in 2016.

There were variations in the rate of change in individual hospitals, but all hospitals at least doubled the number of people they saw compared to baseline within four years.

Impact on access to pain medication: Access to appropriate pain relief is an important component of palliative care. Dispensing of liquid morphine increased during the four years of the programme (See Figure 2). During the baseline 2011 year, there was no information collected about dispensing of liquid morphine as this was almost non-existent. The level rose from 714 grams in 2012 to 1668 grams in 2016 ($p<0.05$). There was a slight decrease after intensive support ended, but rates remained higher than baseline (1343 grams in 2017).

Figure 2

Total grams of liquid morphine dispensed from 10 provincial hospitals 2012-2017

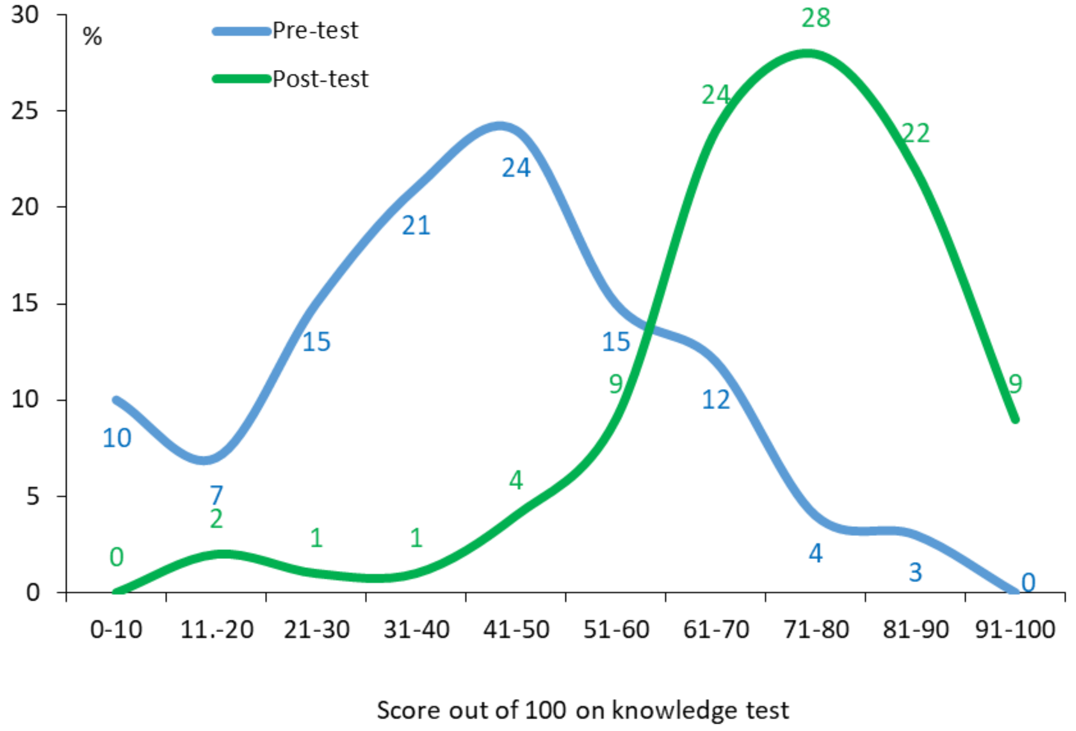


Note: Data are for liquid morphine dispensed in grams, drawn from official hospital submissions to the Ministry of Health. Prior to 2012 no official data were collected.

Impact on knowledge and confidence of workers: There were increases in the objectively assessed knowledge and self-reported confidence of hospital and community health workers. The average knowledge score on a palliative care test increased from 45% before training to 80% after training ($p<0.05$, see Figure 3). Trends in improved knowledge and confidence were equally positive for hospital-based and community workers and for different cadres of workers (p for differences >0.05).

Figure 3

Change in palliative care knowledge scores before and after training



Note: This figure is based on knowledge tests from 602 hospital and community healthcare workers before training and 525 after training. Participants could score a maximum of 100 points, based on correctly answering questions about palliative care. The graph shows the proportion of participants that received different scores. Differences were statistically significant (p<0.05).

Average confidence scores on a five-point Likert scale increased from 2.1 before training to 4.8 after the training, where 5 out of 5 was the highest self-reported confidence to deliver palliative care. In interviews, those who took part in training said they were able to apply the knowledge they learnt in practice because they felt more confident offering palliative care. After training community health workers in the final year of the programme, there were 300 referrals from these workers to provincial hospital palliative care services, compared to fewer than 20 referrals the previous year.

Table 1

Lists some of the factors that interviewees reported to improve access to palliative care in this study

- National mandate from government that hospitals must provide palliative care
- Engaging with government at national and local level to ringfence resources
- Centralised coordination and training by a non-government organisation
- Local hospitals having ownership over their interventions
- Pump-priming funding to buy equipment and medications
- Structured training in palliative care, repeated over time, including clinical placements
- Empowering local workers to act as champions for palliative care
- Regular opportunities to network with other teams to learn from each other
- Regular follow-up in the form of mentoring and supervision
- Including volunteers and community teams in training rather than focusing only on hospitals
- Working with the media and community groups to raise awareness in local communities

DISCUSSION

Key implications: The main implication of this study is that it is possible to increase access to palliative care, even in a resource-poor setting such as Kenya. The findings show an increase in all the outcomes of interest: increased number of provincial hospitals offering palliative care, increased number of people accessing palliative care, increased dispensing of liquid morphine and increased knowledge and confidence of health workers. This was achieved through a mix of national mandates, centralised support and hospital-based training.

This study supports findings of research from other parts of Africa showing that interventions with multiple components that seek to empower local management and staff can improve the accessibility and quality of palliative care.[7][8] A unique finding is that improvements can happen quickly when hospital teams are given the knowledge and confidence to lead change themselves and a regular way to network with others to continue building good practice.

The study found that although having a mandate from the Ministry of Health was important to ensure regions saw palliative care as a priority, it was equally important to empower local regions and clinicians to act as champions. The number of people receiving palliative care doubled in the year when training and supervision were introduced compared to the first year when the focus was on national guidelines.

Continuous sensitisation about key topics was important. The people trained need to be followed up so they stay motivated to implement their training. Repeated training and awareness raising helped to reach more people and reinforce messages. A good example comes from training about children's palliative care. Following an initial training session, palliative care coordinators were from more confident offering palliative care services to children. However it was only after a follow-on training session was provided that further benefits were seen, with the number of children supported more than doubling over a one-year period.

The study found that well run training was important, but training alone may have limited benefits without regular follow up. Mentoring and supervision visits from a national support team helped to share good practice and provide a sense that organisations were part of a larger movement, creating change. Having a national support team from a non-government organisation may have facilitated a supportive culture, rather than organisations feeling that they were being monitored by central government.

The programme developed palliative care champions at each provincial hospital who were able to advocate, train, mentor and help set up palliative care services.

Engaging with county-level government was also important. In Kenya healthcare has been devolved and it is the responsibility of each county government to improve healthcare in their region. Sensitising key health administrators at the county level encouraged them to allocate resources for palliative care services.

LIMITATIONS

A limitation of this study is that it tracked progress over time rather than including a control group so it is not possible to say that the interventions caused the changes observed. No other project targeted all provincial hospitals, but other initiatives were underway during this period which could have contributed to the improvements [9]. It is likely that there was a cumulative effect of all of the development work happening to improve access to palliative care, rather than one intervention being dominant.

Similarly, it is not possible to analyse whether one component of the intervention was more effective than others as the components were implemented simultaneously and adjusted over time in response to local feedback and priorities.

Another limitation is that there remain difficulties in defining palliative care, as outlined by other authors.[10] Much of the care that takes place in hospital wards or in HIV or cancer clinics might be defined as palliative. To mitigate this in this study, the numbers accessing palliative care were defined as those receiving help through palliative care clinics in hospitals. It is likely that the numbers of people receiving palliative care were even greater than this after the intervention.

CONCLUSION

It is estimated that only 5% of people who could benefit from palliative care in Africa receive it and there are similar trends in other developing countries.[11] hence the need for scaling up these services to ensure every patient in need is supported.

This study has shown that it is possible to make rapid improvements in the number of people accessing palliative care in publicly-funded hospitals. In the past seven years, Kenya has increased the number of people accessing palliative care in provincial hospitals by 533%, with sustained impacts. Some of the recommendations to countries planning to integrate palliative care based on this study are: 1) a mandate from central government recognising palliative care as a priority, 2) working with large hospitals in each region to set up palliative care units, so that these sites could act as role models to smaller district or county hospitals, 3) providing training about children's and adult palliative care to a wide range of clinical staff and volunteers is critical and 4) There is need to create awareness regarding palliative care amongst local communities by using media campaigns, educating community volunteers and working with traditional leaders and healers.

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