SUMMARY
In April 2013 the Lancet Oncology published a series on cancer control in Africa comprising 7 papers (Lancet Oncology vol 14 number 4). The significance of these papers to Africa’s attempts at tackling the rapidly rising prevalence of cancer cannot be over-emphasized. Potentially, these papers will form the basis of National policies aimed at controlling or managing cancer in Africa for decades to come. University of Ibadan and her teaching hospital (University College Hospital, Ibadan) scores another plus as three of her staff made notable contributions to the series. African nations and researchers are strongly encouraged to implement evidence based global control guidelines, especially those of the WHO, in the fight against the growing burden of cancer.

INTRODUCTION
Cancer, to a large extent, is an incurable disease that afflicts many organisms and systems. In humans the disease causes significant morbidity and mortality. The precise cause of cancer is still largely unknown. Increased life expectancy and the continued presence of infectious diseases that are associated with risks of malignancies make cancer an increasing problem in sub-Saharan Africa. Some of the landmark papers published in the Lancet include first reports of Lister’s antiseptic principle (1867), Rivers’ insights into shell shock therapy that led to a better understanding of what is now known as Post-Traumatic Stress Disorder (1918), Florey’s announcement on the value of penicillin (1940), the first published signal that thalidomide was linked to birth defects (1961), description of new-variant Creutzfeldt-Jakob disease (1996), and identification of coronavirus as a possible cause of SARS (2003).

In September 2000 the Lancet oncology was launched with a focus on publishing interesting, informative, and practice-changing articles on any topic connected with clinical oncology. Currently Lancet Oncology has an impact factor of 22.59. The journal ranks fourth out of 194 oncology journals worldwide and is the leading clinical research journal in oncology. The journal is in the top 0.5% of all scientific journals, of any discipline, globally (2011 Journal Citation Reports®, ©Thomson Reuters 2012).

Excellence is what the Lancet group of journals have come to be known for. Studies have to be rigorous and exact to stand a chance of being published in any of the Lancet group of Journals. Thus, the series on cancer control in Africa comprising seven papers (table 1) is a significant contribution to the fight against cancer in the continent. Potentially these papers will form the foundations of Africa’s assault on cancer, a group of diseases whose prevalence is rapidly rising, in Africa.

Cancer control in Africa
The first paper of the series gives a perspective on the epidemiology of cancer in the African Region and an overview of challenges and opportunities in Cancer Control. Although cancer currently accounts for only...
Policy makers need evidence for the needs of patients
diseases like cancer is being uncovered. The fourth
dpaper in the series discusses radiotherapy as an
important component of cancer control\textsuperscript{6}. Progress has
been made in the establishment of radiation oncology
services in some African countries. Nevertheless, a large
shortfall still exists for basic radiation services and
much work is needed to keep pace with the
burgeoning populations of many African countries.

Cancer control in Africa 5
The cancer burden in developing countries is growing
rapidly. Pain is a common component of cancer in all
categories of patients with the diseases. The
management of pain is a significant aspect of cancer
control. WHO recommends opioid analgesics for the
treatment of moderate to severe pain such as that of
patients with advanced cancer, and regards morphine
as an essential drug. Concrete evidence exists that
opioids are safe and effective for the treatment of
moderate or severe pain in people with cancer.

Cancer control in Africa 6
Research aimed at improving palliative care for patients
with cancer is needed to address the problem of
inadequate access to pain control measures\textsuperscript{7}. Much has
been achieved in palliative care in Africa during the
past few years. Innovative forms of palliative care,
such as roadside care delivered by Hospice Africa
Uganda are practised in the continent, together with
consultancy to other care settings such as hospital wards
and (more rarely) hospital-based palliative care. These
innovations have remained largely unreported in
scientific literature. Research into the needs, care, and
outcomes of patients with advanced cancer in sub-
Saharan Africa is urgently needed for effective cancer
control. Policy makers need evidence for the needs of patients
and the effectiveness of care. The four pillars of policy,
education, drug availability, and implementation cannot
achieve integration of palliative care into the public
health system without the generation of high-quality,
locally relevant evidence for how to achieve each pillar.
A fifth pillar of research activity will ensure that practice
is evidence-based and replicable, that public health
responses reflect the needs and priorities of the

about 5% of deaths in the African region (table 2), the
cancer burden might be an underestimation due to
lack of appropriate diagnosis, poor access to care,
and low quality of cancer data systems. Prostate cancer
in men and cervical cancer in women are the most
common cancers in the region. This paper highlights
the challenges facing cancer control in the region and
most of these surround the absence of cancer
prevention and control policy, strategies, and
programmes.

Cancer control in Africa 2
It has been predicted that in a few decades from now
cancer would become a major clinical and public health
issue in sub-Saharan Africa. Pathology and pathologists
are central to cancer control anywhere in the world.
The state of pathology services in Africa needs to be
rapidly scaled up qualitatively and quantitatively. This
second paper in the series gives a comprehensive review of the central importance of pathology in
clinical care, research, and public health necessary for
effective cancer control\textsuperscript{1}. Adequate pathology can
benefit cancer control in sub-Saharan Africa in several
ways: improving clinical services, informing cancer
control efforts, aiding the development and implementation of national cancer control plans,
supporting cancer registration, and supporting various
types of research, including epidemiology, basic science,
clinical trials, and translational research. Education of
relevant governmental agency staff, policy makers, and the clinical
community about the central role and importance of pathology
is crucial to increase support for improved pathology services in the region.

Cancer control in Africa 3
The treatment of cancer in sub-Saharan Africa is the
theme of the third paper in the series\textsuperscript{5}. The challenges of
treatment of different cancers in the sub-region
are discussed and recommendations for improvement
are highlighted. The paper concludes that issues of
cost, infrastructure, inadequate workforce, cultural
barriers, and scarcity of data all limit cancer care in
sub-Saharan Africa. Oncologists and surgeons must
also intervene to influence the curricula of medical
schools and training for other health-care professionals,
to improve cancer care. More specialist centres for
oncology care need to be created on the continent to
help in the training of needed health-care workers and
collaborate with international training institutions to
meet the needs of the rapidly growing numbers of
patients with cancer.

Cancer control in Africa 4
With the reduction in the morbidity and mortality due
to communicable diseases in the continent over the
past centuries, the true burden of non-communicable
Table 1: Summary of papers in the lancet series on cancer control in Africa

<table>
<thead>
<tr>
<th>Paper</th>
<th>Authors</th>
<th>Focus</th>
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<tbody>
<tr>
<td>Cancer control in Africa 1; Challenges and opportunities in cancer control in Africa: a perspective from the African Organisation for Research and Training in Cancer</td>
<td>Imran O Morhason-Bello (M.Sc), MPH, Folakemi Odedina (PhD), Timothy R Rebeck (PhD), Joe Harford (PhD), Jean-Marie Dangou (MD), Lynette Denny (MD), Isaac F Adewole (FAS)</td>
<td>This paper discusses the present situation in sub-Saharan Africa and proposes ideas to advance cancer control in the region, including the areas of cancer awareness, advocacy, research, workforce, care, training, and funding.</td>
</tr>
<tr>
<td>Cancer control in Africa 2; Improvement of pathology in sub-Saharan Africa</td>
<td>Adekunle Adesina (MD), David Chumba (MD), Ann M Nelson (MD), Jackson Orem (MD), Drucilla J Roberts (MD), Henry Wabinga (MD), Michael Wilson (MD), Timothy R Rebeck (PhD)</td>
<td>This paper proposes approaches to improving the status of pathology in Sub-Saharan Africa and to address the needs of patients with cancer and other diseases.</td>
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<tr>
<td>Cancer control in Africa 3; Treatment of cancer in sub-Saharan Africa</td>
<td>T Peter Kingham (MD), Olusegun I Alatise (MD), Verna Vanderpuye (MD), Corey Casper (MD), Francis A Ahabtanga (MD), Thaim B Kamara (MD), Olufunmilayo I Olopade (MD), Muhammad Habebeu (MBBS), Fatimah B Abdul-kareem (MBBCh), Lynette Denny (MD)</td>
<td>This paper describes treatment options for patients with cancer in sub-Saharan Africa, with a focus on the role of surgery in relation to medical and radiation oncology, and argues that surgery must be included in public health efforts to improve cancer care in the region.</td>
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<tr>
<td>Cancer control in Africa 4; Status of radiotherapy resources in Africa: an International Atomic Energy Agency analysis</td>
<td>May Abdel-Wahab (MD), Jean-Marc Bourque (MD), Yaroslav Pynda (M.Sc.), Joanna Izewska (PhD), Debbie Van der Merwe (PhD), Eduardo Zubizarreta (MD), Eduardo Zubizarreta (MD), Eduardo Rosenblatt (MD)</td>
<td>A longitudinal assessment of the status of radiation oncology resources in Africa to measure the extent of the problem and the effects of programmes designed to enhance radiation services in the continent.</td>
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<tr>
<td>Cancer control in Africa 5; Improving access to analgesic drugs for patients with cancer in sub-Saharan Africa</td>
<td>Megan O’Brien (PhD), Faith Mwangi-Powell (PhD), Isaac F Adewole (FAS), Olaitan Soyannwo (FWACS), Jacinto Amandua (MMed), Elizabeth Ogaja (MSc), Mary Okpeseyi (BPharm), Zipporah Ali (MPH), Rose Kavanuka (BSc), Anne Merriman (FRCP)</td>
<td>Data suggest that at least 88% of cancer deaths with moderate to severe pain are untreated in the region. Efforts underway in Uganda, Kenya, and Nigeria provide examples of challenges faced and innovative approaches adopted and form the basis of a proposed framework to improve access to pain relief for patients with cancer across the region.</td>
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<td>Cancer control in Africa 6; Research into palliative care in sub-Saharan Africa</td>
<td>Richard Harding (PhD), Lucy Selman (PhD), Richard A Powell (MSc), Eve Namisango (MSc), Julia Downing (PhD), Anne Merriman (FRSC), Zipporah Ali (MPH), Nancy Gikaara (BSc), Liz Gwyther (MSc), Irene Higginson (PhD)</td>
<td>Palliative care for patients with cancer in Africa currently receives far less research attention than does palliative care for patients with HIV/AIDS, but in view of projected increasing cancer incidence in the region, generation of local evidence to inform and allow assessment of palliative care for patients with cancer is urgently needed.</td>
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<tr>
<td>Cancer control in Africa 7; Developing cancer control plans in Africa: examples from five countries</td>
<td>Daniela Cristina Stefan (PhD), Ahmed M Elzawawy (MD), Hussein M Khaled (MD), Fabien Ntaganda (MMed), Anita Asimwe (MPH), Beatrice Waife Addai (PhD), Seth Waife (MPH), Isaac F Adewole (FAS)</td>
<td>Examples from South Africa, Egypt, Nigeria, Ghana, and Rwanda describe the state of national cancer control plans and their implementation.</td>
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populations they serve, and that feasible, acceptable, and effective care is provided.

Cancer control in Africa 7

The final paper of the series describes developing cancer controls plans in Africa using examples from five countries; South Africa, Egypt, Nigeria, Ghana, and Rwanda. Cancer treatment is resource-intensive and costly, and because most patients present late, their survival is short. People affected by cancer rarely develop political influence (e.g., as politically active survivor groups) because most patients do not live long enough. Improved awareness of the increasing burden of cancer and increased advocacy are needed to put pressure on governments to develop, fund, and implement national cancer control plans across the continent.

Contributors from University of Ibadan/University College Hospital, Ibadan, Nigeria

Prof I.F. Adewole: A Consultant Obsterician and Gynaecologist at the University College Hospital (UCH) in Ibadan; a Professor at the College of Medicine of the University of Ibadan, Nigeria since 1997. He is also an adjunct Professor at Northwestern University, Chicago, Illinois, USA, and currently the Vice Chancellor (11th) of the University of Ibadan, Nigeria. His current research interests include evaluating novel ideas for promoting cervical cancer screening in developing countries, a multi-country study on HPV in cervical cancer among African women and evaluating attitudes of HIV positive pregnant women to contraception and couple counselling. He has published numerous articles in peer-reviewed journals and books on gynaecological oncology, abortion, HIV/AIDS and perinatal medicine. He has delivered many guest lectures, numerous communications at scientific conferences, abstracts and poster presentations and has published over 140 articles in peer-reviewed journals and books on gynaecological oncology, abortion, HIV/AIDS and perinatal medicine.

Prof Olaitan Soyanwo: Professor of Anesthesia and Consultant in Anesthesia and Pain and Palliative Care at University College Hospital in Ibadan, Nigeria, is known for her impressive work in pain and palliative care in Africa and around the world. She has been an active member of the International Association for Study of Pain (IASP) since 1981, serving on numerous IASP committees and working groups and on the IASP Council. She has also served as President of the Society for the Study of Pain, Nigeria (IASP chapter), and as a board member of the African Palliative Care Association, the Nigeria Hospice and Palliative Care Association, and the Nigerian Academy of Science. In 2009, she jointly organized the 9th IASP Research Symposium, “A Global Problem: Cancer Pain from the Laboratory to the Bedside,” and co-edited the IASP Press book, Cancer Pain: From Molecules to Suffering. Referred to as the “grandmother of pain and palliative care” in Nigeria, she is described as “tirelessly and courageously” moving the field of pain forward.

Dr. I. O. Morhason-Bello: Is a lecturer at the Department of Obstetrics and Gynaecology, Faculty of Clinical Sciences, College of Medicine, University of Ibadan and Honorary Consultant at University College Hospital, Ibadan, Oyo State, Nigeria. He is a Fellow of West African College of Surgeon (FWACS) and Fellow of Medical College of Obstetrics and Gynaecology (FMCOG). He has Masters of Science

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Table 2: Death (x1000) by cause worldwide and in Africa in 2004

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<tr>
<th></th>
<th>Worldwide (population size 6,437,000,000)</th>
<th>Africa (population size 738,000,000)</th>
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<tbody>
<tr>
<td></td>
<td>Deaths, n</td>
<td>% total deaths</td>
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<tr>
<td>Total deaths</td>
<td>58,772</td>
<td>100</td>
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<tr>
<td>Deaths from communicable, maternal, perinatal, and nutritional diseases</td>
<td>17,971</td>
<td>30.6</td>
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<tr>
<td>Infectious or parasitic diseases</td>
<td>9,579</td>
<td>16.3</td>
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<tr>
<td>Deaths from non-communicable Disorders</td>
<td>35,017</td>
<td>59.6</td>
</tr>
<tr>
<td>Cancers</td>
<td>7,424</td>
<td>12.6</td>
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<tr>
<td>Deaths from other causes</td>
<td>5,784</td>
<td>9.8</td>
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CONCLUSIONS
Cancer rates in African countries are rapidly rising. These publications in the Lancet Oncology are good baselines for co-ordinated, evidence based approach, to cancer control in the continent. We must do all that is required to halt the rising rates and prevent the epidemic of cancer in Africa. Reversing the trend will require mass public enlightenment campaigns, lifestyle modifications, and increased funding from public and private agencies. Africa must join the global efforts aimed at conquering cancer by developing required infrastructure and training adequate manpower.

ACKNOWLEDGEMENTS
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REFERENCES