Gynecologic Cancer InterGroup
Cervix Cancer Research Network

Cancer Cervix

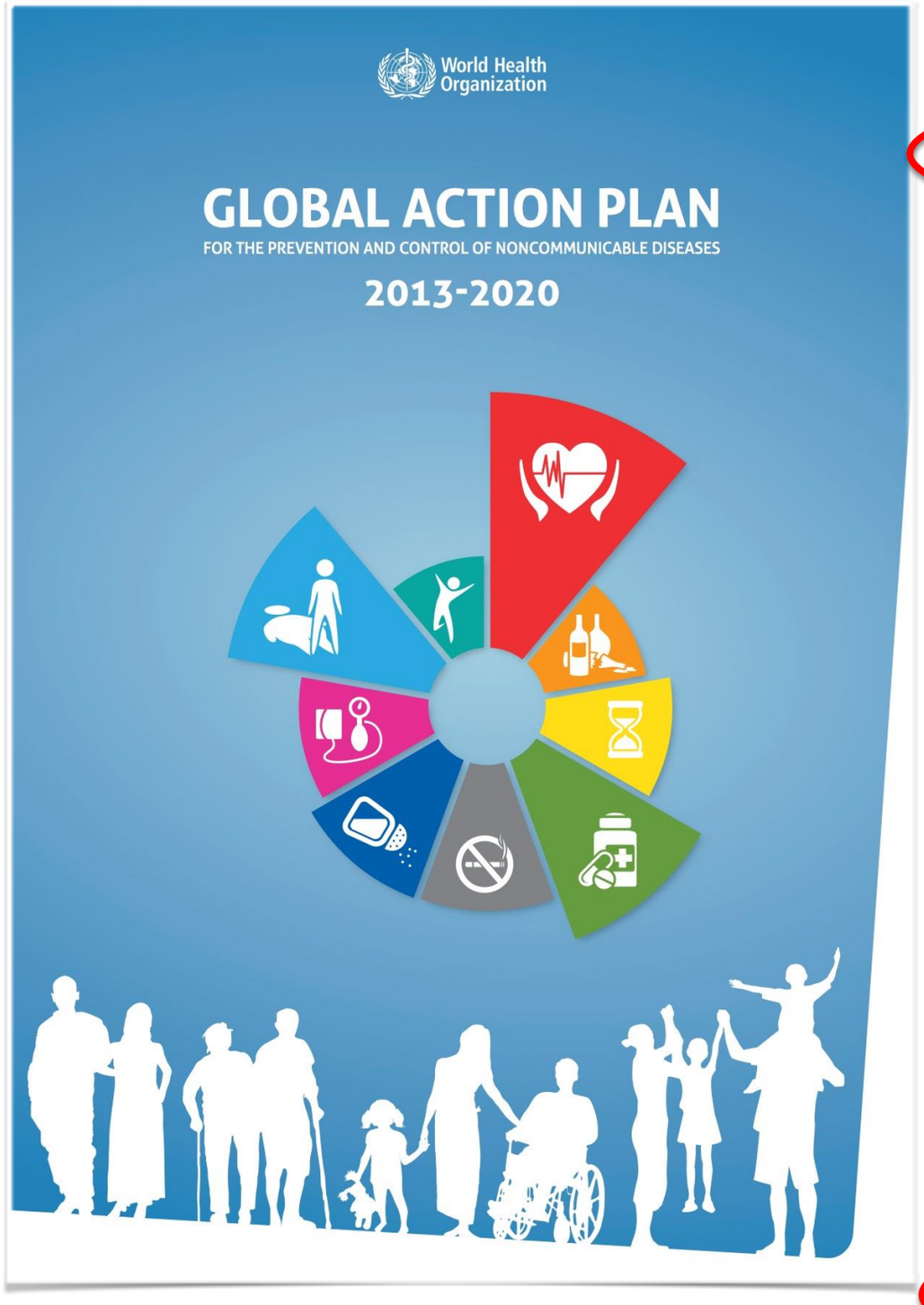
An IAEA Perspective

May Abdel-Wahab, MD, PhD, FACR, FASTRO
Director, Division of Human Health,
International Atomic Energy Agency

Cervix Cancer Education Symposium, January 2017, Mexico

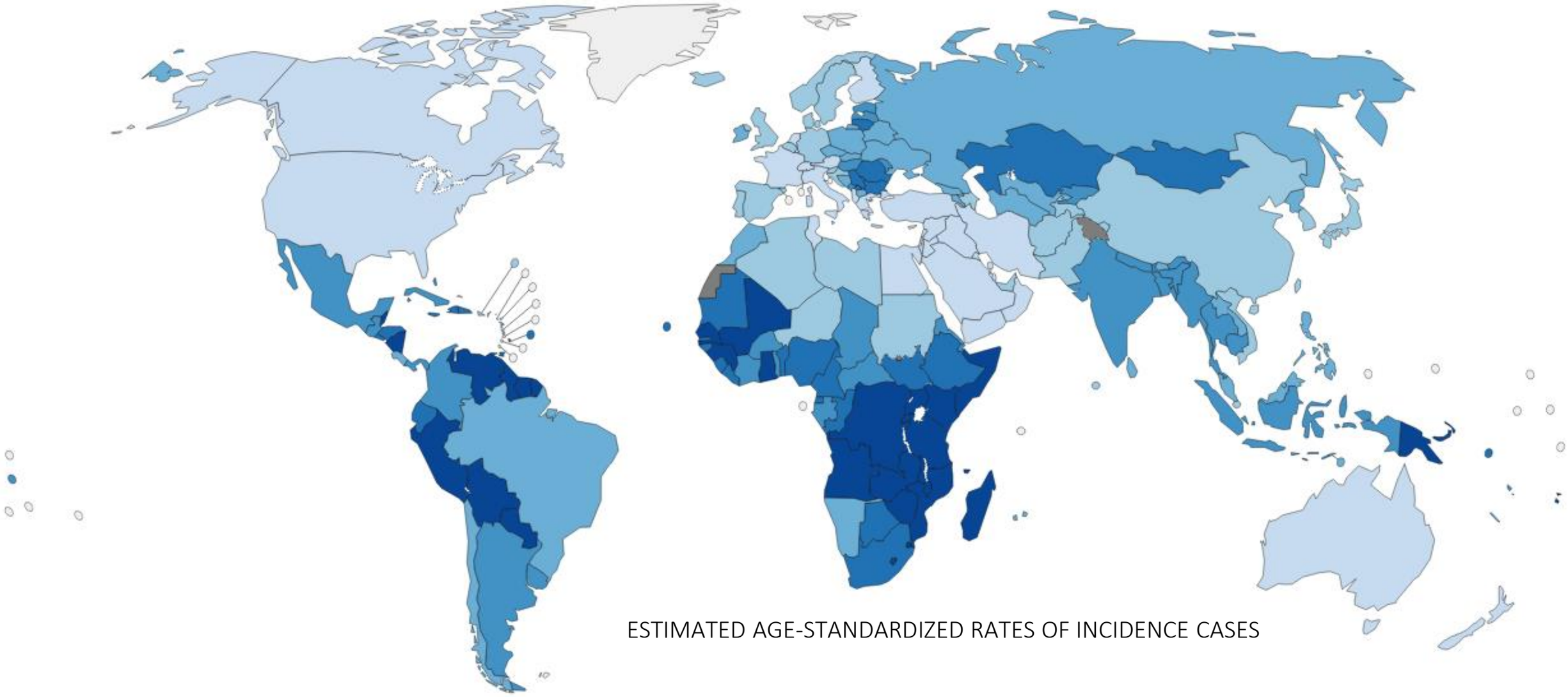
IAEA 60 Years
Atoms for Peace and Development

NON-COMMUNICABLE DISEASES ARE IN THE GLOBAL AGENDA



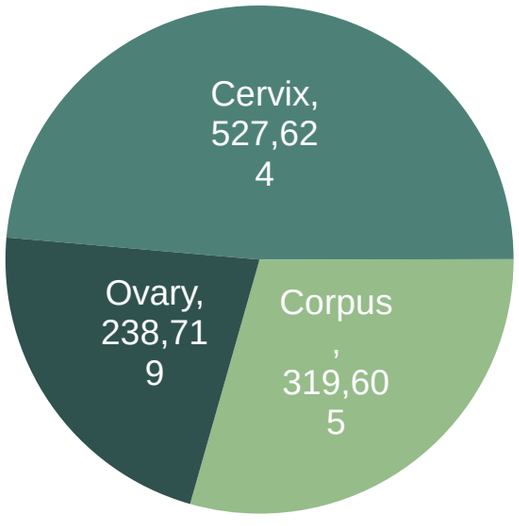
- A **25%** relative reduction in risk of premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases.
- At least **10%** relative reduction in the harmful use of alcohol, as appropriate, within the national context.
- A **10%** relative reduction in prevalence of insufficient physical activity.
- A **30%** relative reduction in mean population intake of salt/sodium.
- A **30%** relative reduction in prevalence of current tobacco use in persons aged 15+ years.
- A **25%** relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances.
- **Halt the rise** in diabetes and obesity.
- At least **50%** of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes.
- An **80%** availability of the affordable basic technologies and essential medicines, including generics, required to treat major noncommunicable diseases in both public and private facilities.

INCIDENCE CERVIX CANCER WORLDWIDE, FEMALES 2012



ESTIMATED AGE-STANDARDIZED RATES OF INCIDENCE CASES

6.657.518 NEW CANCER CASES
1.085.948 NEW GYN CASES

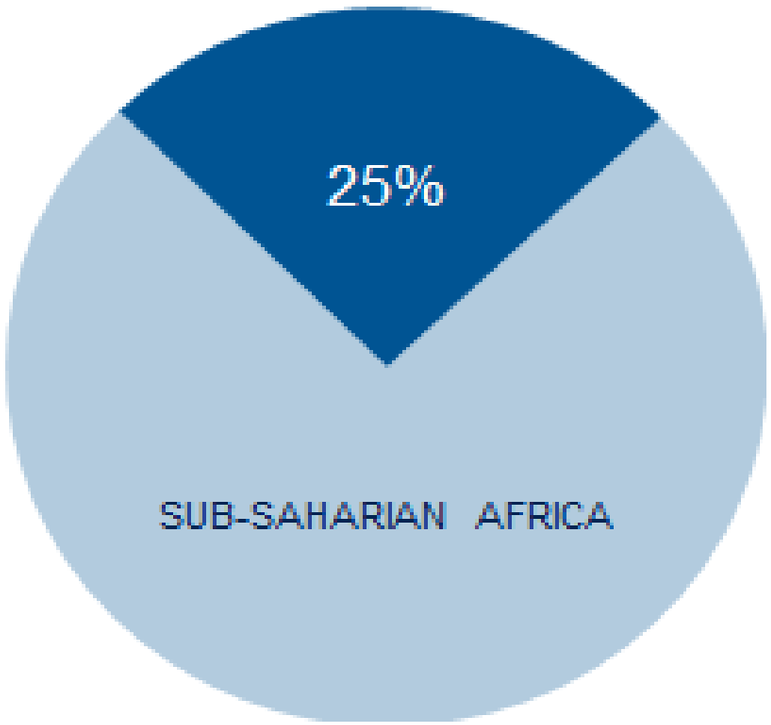


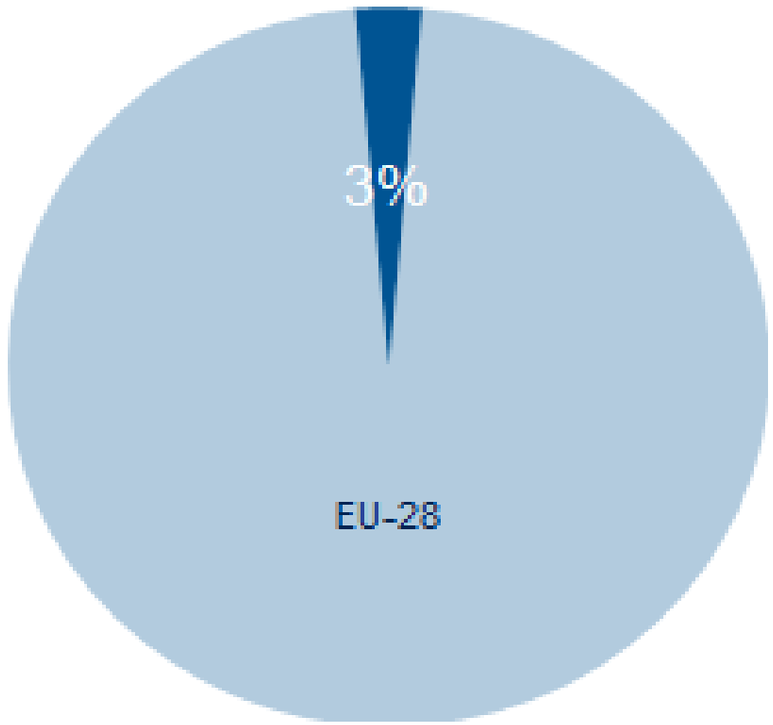
CONTINENT	CERVIX CASES
Asia	285000
Africa	99000
Latin America and the Caribbean	69000
Europe	58000
North America	14000
Oceania	2000

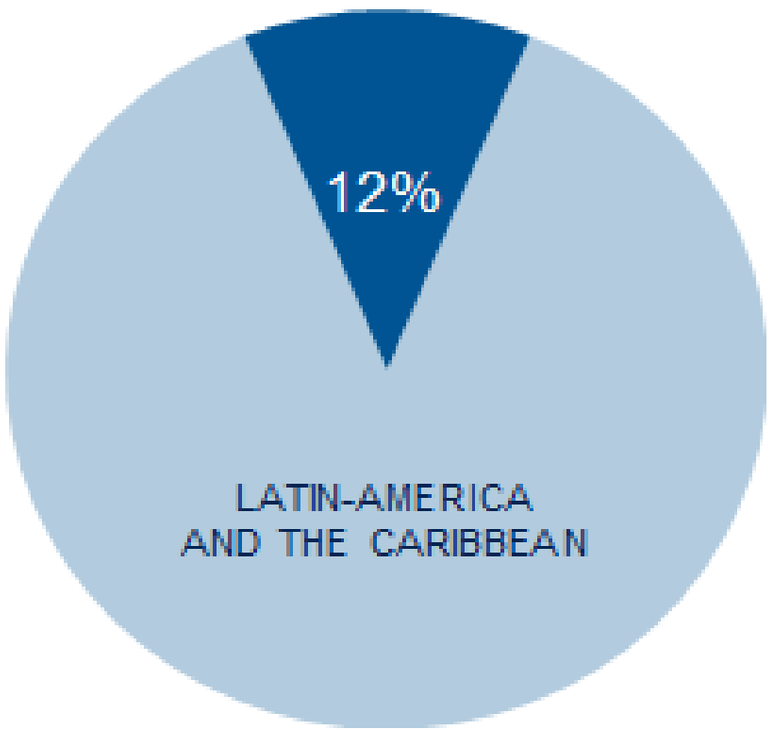
Source: GLOBOCAN 2012

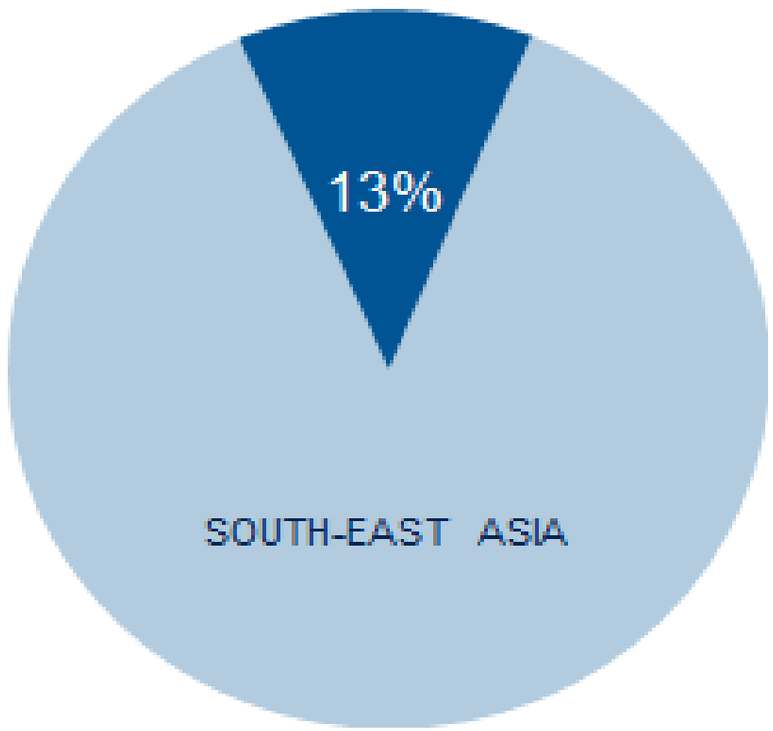
INCIDENCE OF CERVIX CANCER BY DEVELOPMENT

PROPORTION OF THE TOTAL FEMALE CANCERS









Source: GLOBOCAN 2012

DIVISION OF HUMAN HEALTH

Activities in cervix cancer

INTERAGENCY COOPERATION PROGRAMMES

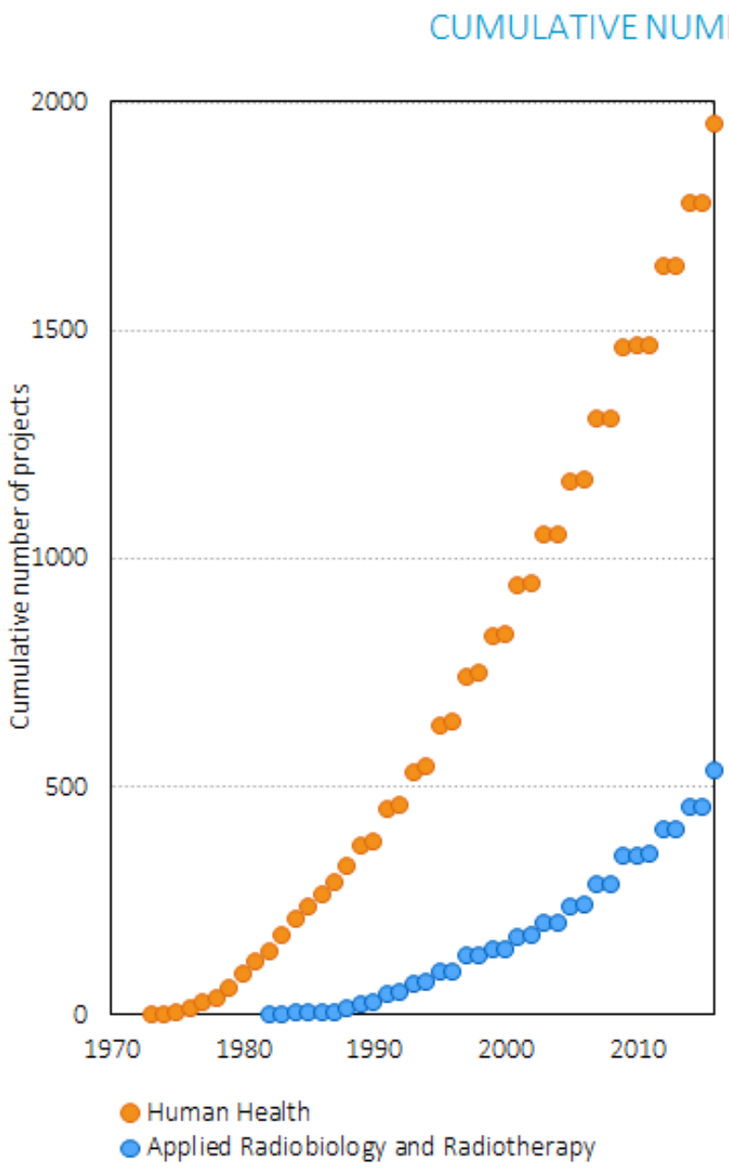
TEACHING, DOCUMENTATION AND GUIDELINES

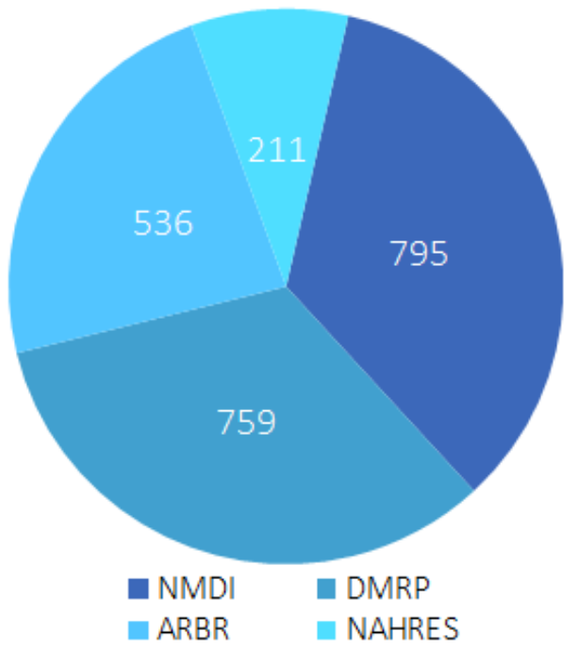
IAEA

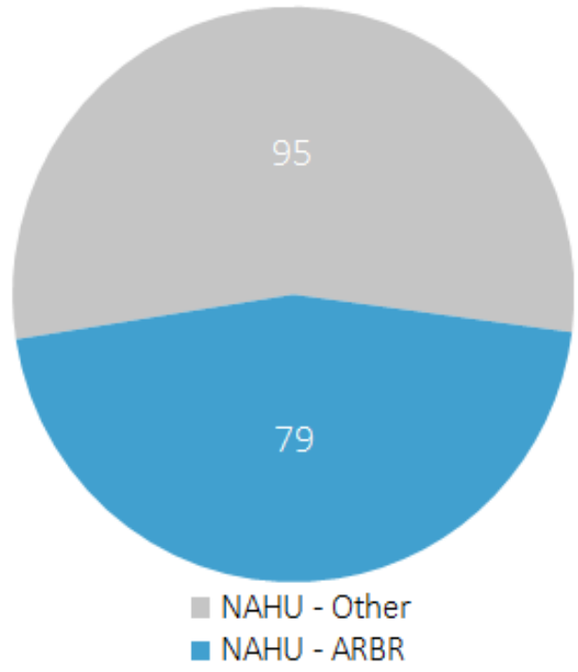
COORDINATED RESEARCH PROJECTS

TECHNICAL COOPERATION PROJECTS

TECHNICAL COOPERATION PROJECTS





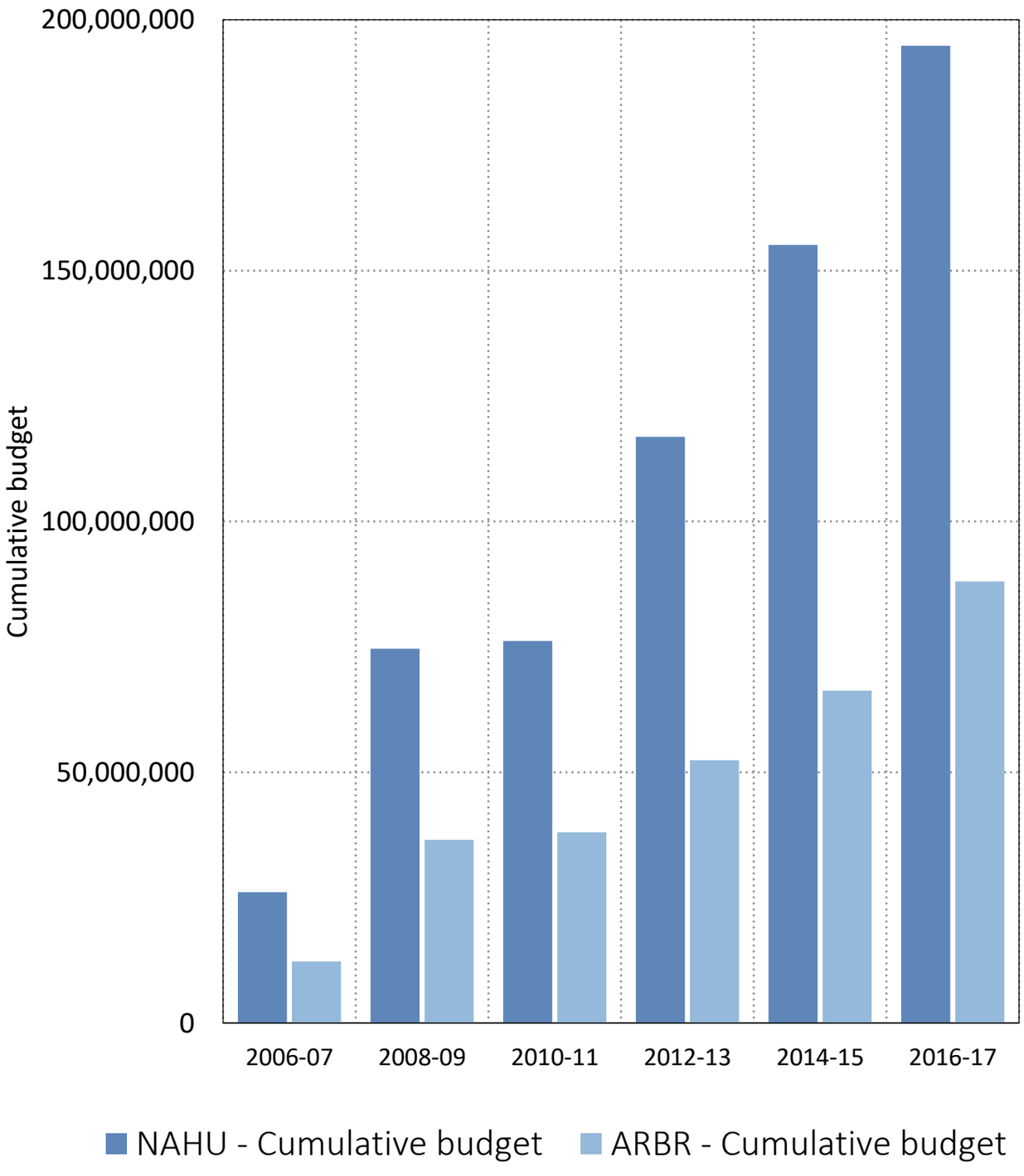


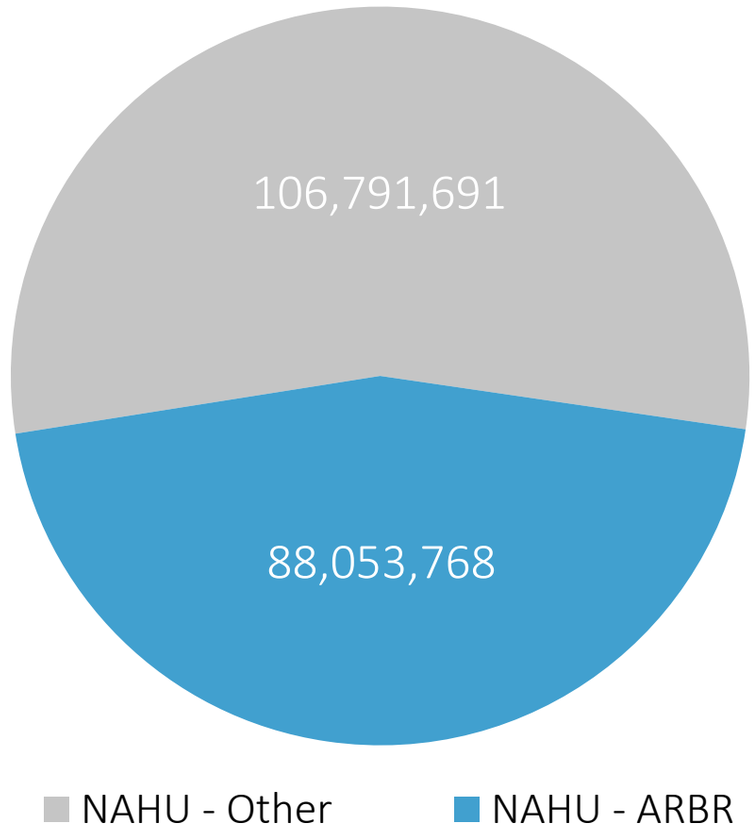
From 1973 to 2016, the IAEA, through the TC programme granted nearly 300 million USD to 1953 projects related to Human Health

In 2016, 79 of the projects in Human Health (45%) were related to radiotherapy, accounting for 22 million USD

FORTY YEARS OF TECHNICAL COOPERATION IN HUMAN HEALTH

THE LAST DECADE: CUMULATIVE BUDGET (2006 - 2016)





From 2006 to 2016, the IAEA, through the TC programme granted nearly 200 million USD to projects related to Human Health

FORTY YEARS OF TECHNICAL COOPERATION IN HUMAN HEALTH

CUMULATIVE NUMBER OF PROJECTS IN CERVIX CANCER (1970 - 2016)

Project Number	Geography	Project Title	Year of Approval
KEN6006	Kenya	Intracavitary Radiation Therapy for Cervical Cancer	1986
KEN6008	Kenya	Treatment of Cervical and Oesophageal Cancer	1991
URU6019	Uruguay	Afterloading Brachytherapy for Control of Uterine Cancer	1993
ARG6009	Argentina	Optimization of Radiation Treatment of Cervical Cancer	1999
KEN6011	Kenya	Early Diagnosis and Treatment of Cervical Cancer	1999
ZIM6007	Zimbabwe	Control of Cervical Cancer Associated Human Papilloma Virus	1999
RAS6035	Regional (Asia-Pacific)	LDR and HDR Brachytherapy in Treating Cervical Cancer (RCA)	2001
ELS6014	El Salvador	Strengthening of Integrated Care for Women with Invasive Cancer of the Uterine Cervix	2003
MOR6015	Morocco	Use of Molecular and Nuclear Techniques in Diagnosis of Tuberculosis and Cervical Cancer	2003
RAS6037	Regional (Asia-Pacific)	Quality Assurance for Treatment of Cervix Cancer by Radiotherapy (RCA)	2003
RLA6049	Regional (Latin America and the Caribbean)	Improvement of the Radiation Treatment of Uterine Cervix Cancer (ARCAL LXXIV)	2003
ELS6014	El Salvador	Strengthening of Integrated Care for Women with Invasive Cancer of the Uterine Cervix	2003
RLA6049	Regional (Latin America and the Caribbean)	Improvement of the Radiation Treatment of Uterine Cervix Cancer (ARCAL LXXIV)	2003
MYA6025	Myanmar	Improvement of Quality Assurance in Brachytherapy for Cervical Cancer	2007
BOL6028	Bolivia	Assessing the Feasibility of Comprehensive Cervical Cancer Treatment	2012

FORTY YEARS OF TECHNICAL COOPERATION IN HUMAN HEALTH

STRENGTHENING RADIOTHERAPY (1970 - 2016)

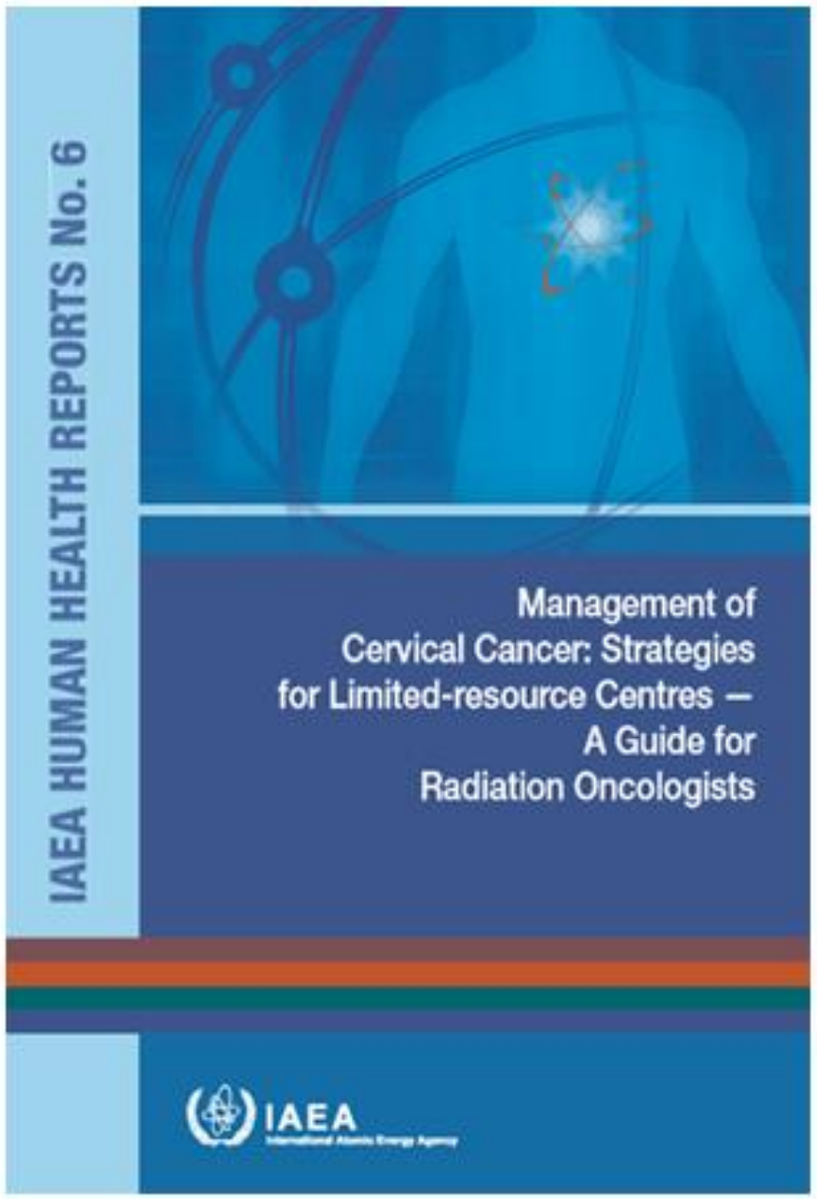
Project Number	Geography	Project Title	Year of Approval
TUN6006	TUN	Strengthening Brachytherapy Facilities	1995
MAG6002	MAG	Strengthening Radiotherapy and Nuclear Medicine	1997
NIC6007	NIC	Strengthening Radiotherapy Services	1999
RAF0013	Regional (Africa)	ICT-Based Training to Strengthen LDC Capacity	2000
TUN6009	TUN	Strengthening Brachytherapy Facilities	2001
ELS6014	ELS	Strengthening of Integrated Care for Women with Invasive Cancer of the Uterine Cervix	2003
GUA6015	GUA	Strengthening the Quality Assurance Programme at the National Radiotherapy Reference Centre	2003
NIC6011	NIC	Strengthening Radiotherapy Services	2003
NIR6015	NIR	Strengthening Radiotherapy Treatment through Gene Expression Profiling	2003
LIB6004	LIB	Strengthening National Capabilities in Medical Physics	2005
MOR6017	MOR	Strengthening the Health Sector Using Nuclear Techniques	2005
ETH6013	ETH	Strengthening the Nuclear Medicine and Radiotherapy Services	2007
ETH6014	ETH	Strengthening Nuclear Medicine and Radiotherapy Services (Phase II)	2009
GUA6017	GUA	Strengthening Radiotherapy in Guatemala by Improving the Radiotherapy Department at the Dr. Bernardo del Valle S. Cancer Institute	2009
MLI6008	MLI	Strengthening the Establishment of a Radiotherapy and Oncology Centre at the Point G Hospital	2009
NIR6021	NIR	Upgrading and Strengthening Radiotherapy Centres	2009
SRB6006	SRB	Strengthening 3-D Conformal Therapy	2009
ZAM6016	ZAM	Strengthening the Delivery of Radiotherapy Services	2009
ZIM6015	ZIM	Strengthening Existing Training Programmes For Radiation Oncologists, Medical Physicists and Therapy Technicians	2009
ARM6011	ARM	Strengthening Radiation Therapy Services and Establishing 3D Conformal Radiotherapy	2012
BGD6024	BGD	Strengthening the Oncology Department of Bangabandhu Sheikh Mujib Medical University	2012
CMR6011	CMR	Strengthening the Radiation Therapy Infrastructure by Reinforcing Human Resources and Optimising Technical Quality	2012
ISR6020	ISR	Strengthening Capacity Building in Radiotherapy(Not Funded)	2012
MAG6006	MAG	Improving and Strengthening Cancer and Cardiovascular Disease Management Through Nuclear Medicine by Improving Diagnostic Capabilities	2012
MAL6020	MAL	Strengthening Cancer Services Throughout the Country	2012
RAF6045	Regional (Africa)	Strengthening Regional Human Resource Building and Treatment Capacity in Radiotherapy (AFRA)	2012
RAS6065	Regional (Asia-Pacific)	Strengthening the Application of Stereotactic Body Radiation Therapy to Improve Cancer Treatment	2012
RER6022	Regional (Europe)	Strengthening Knowledge of Radiation Oncologists and Radiation Therapists	2012
SRB6008	SRB	Strengthening 3D Conformal Therapy to Achieve Minimum Requirements for Safe and Effective Radiotherapy, Phase II	2012
SRL6033	SRL	Strengthening of Radiotherapy (Brachytherapy) for Cancer Treatment	2012
VIE6026	VIE	Strengthening National Competency of Radiation Therapy and Nuclear Medicine for Cancer Control	2012
ZIM6016	ZIM	Strengthening the National Radiotherapy Treatment Capacity by Developing Adequate Facilities and Expertise	2012
ISR6023	ISR	Strengthening Capacity Building and Improving Quality Assurance in Radiotherapy	2014
MAK6014	MAK	Strengthening 3D Conformal and Intensity Modulated Radiotherapy at the University Clinic of Radiotherapy and Oncology	2014
NAM6009	NAM	Strengthening the Institutional Framework in Support of the National Cancer Control Programme	2014
NIC6018	NIC	Strengthening Capacities for Radiation Treatment of Cancer Patients in the National Radiotherapy Centre	2014
NIR6025	NIR	Strengthening Radiotherapy Services for Common Cancers in Nigeria.	2014
RAS6072	Regional (Asia-Pacific)	Strengthening Intensity Modulated Radiation Therapy Capability in the Region (RCA)	2014
RER6029	Regional (Europe)	Improving Radiotherapy Services through Strengthened Knowledge of Radiation Oncologists and Radiation Therapists	2014
SLR0009	SLR	Strengthening Human Resource Capacity and Nuclear Knowledge Preservation	2014
URT6028	URT	Strengthening the Cancer Control Programme	2014
ZIM6018	ZIM	Strengthening Medical Physics Capabilities in the Treatment and Diagnosis of Cancer	2014
ZIM6020	ZIM	Strengthening the National Radiotherapy Treatment Capacity by Developing Adequate Facilities and Expertise (Phase II)	2014
ALG6020	ALG	Developing Capacity in Nuclear Medicine, Medical Physics and Radiotherapy in the New Cancer Centres and Strengthening Clinical Applications of New Technologies in Nuclear Medicine, Medical Physics and Radiotherapy.	2016
ARM6013	ARM	Strengthening Nuclear Medicine by Introducing New Imaging Technologies	2016
BGD6026	BGD	Building Capacity for Improved Cancer Management through Strengthening Human Resources in the Field of Radiation Oncology	2016
BOT6006	BOT	Strengthening, Developing and Increasing Human Resource Capacities of the Established Radiotherapy Unit	2016
ETH6018	ETH	Expanding and Strengthening Radiotherapy and Nuclear Medicine Services	2016
GAB6007	GAB	Strengthening Human and Technical Capacities in Nuclear Medicine and Radiotherapy	2016
MAK6016	MAK	Strengthening Brachytherapy and Advanced External Beam Therapy Techniques at the University Clinic of Radiotherapy and Oncology	2016
MYA6032	MYA	Strengthening Human Resource Capacity in Nuclear Medicine and Radiotherapy Services for Improving the Diagnosis and Treatment of Cancer Patients	2016
PAP6001	PAP	Improving Accessibility to Cancer Diagnosis and Treatment through Strengthening of Current Systems and the Introduction of Advanced Radiotherapy, Brachytherapy, Radionuclide Imaging and Diagnostic Imaging	2016
PER6018	PER	Strengthening National Capacities for Diagnosis and Treatment of Cancer Patients	2016
RER6033	Regional (Europe)	Strengthening Knowledge of Radiation Therapy Professionals (Radiation Oncologists, Medical Physicists and Radiation Therapy Technologists)	2016
RLA6077	Regional (LAC)	Taking Strategic Actions to Strengthen Capacities in the Diagnostics and Treatment of Cancer with a Comprehensive Approach (ARCAL CXLVIII)	2016
UAE6006	UAE	Strengthening Cancer Screening and Palliative Care Capacity	2016
URT6031	URT	Strengthening and Expanding the Cancer Control Programme	2016
URU6038	URU	Strengthening Safety and Development of Radiosurgery, Intensity-Modulated and Image-Guided Radiation Therapy	2016
UZB6013	UZB	Strengthening of Radiotherapy Services in Bukhara Regional Oncological Dispenser (BukhROD)	2016
VEN6018	VEN	Strengthening National Capacities in the Field of Radio Biology and Molecular Oncology	2016
YEM6013	YEM	Strengthening Capabilities at the Brachytherapy Cancer Centre, 48 Model Hospital	2016

TECHNICAL COOPERATION IN ZAMBIA IN THE FIELD OF RADIOTHERAPY
1995 - 2016

Project Number	Geography	Project Title	Year of Approval
RAF6014	Regional (Africa)	Improvement of Clinical Radiotherapy (AFRA II-1)	1995
ZAM6006	Zambia	Establishment of Radiotherapy Facility	1995
RAF6024	Regional (Africa)	Management of the Most Common Cancers in Africa (AFRA II-4)	2001
ZAM6010	Zambia	Establishment of a Radiotherapy Facility	2003
RAF6035	Regional (Africa)	Enhancing Accessibility and Quality in the Care of Cancer Patients (AFRA II-10)	2007
ZAM6012	Zambia	Improving the Quality of Cancer Treatment	2007
ZAM6016	Zambia	Strengthening the Delivery of Radiotherapy Services	2009
RAF6045	Regional (Africa)	Strengthening Regional Human Resource Building and Treatment Capacity in Radiotherapy (AFRA)	2012
ZAM6019	Zambia	Expanding the Capacity for Radiation Oncology through Sustainable Local Human Resource Development to Benefit National Cancer Control	2012
ZAM6020	Zambia	Consolidating the Delivery of Cancer Treatment Services	2014
RAF6050	Regional (Africa)	Improving Access to Quality Cancer Management through Sustainable Capacity Building	2016

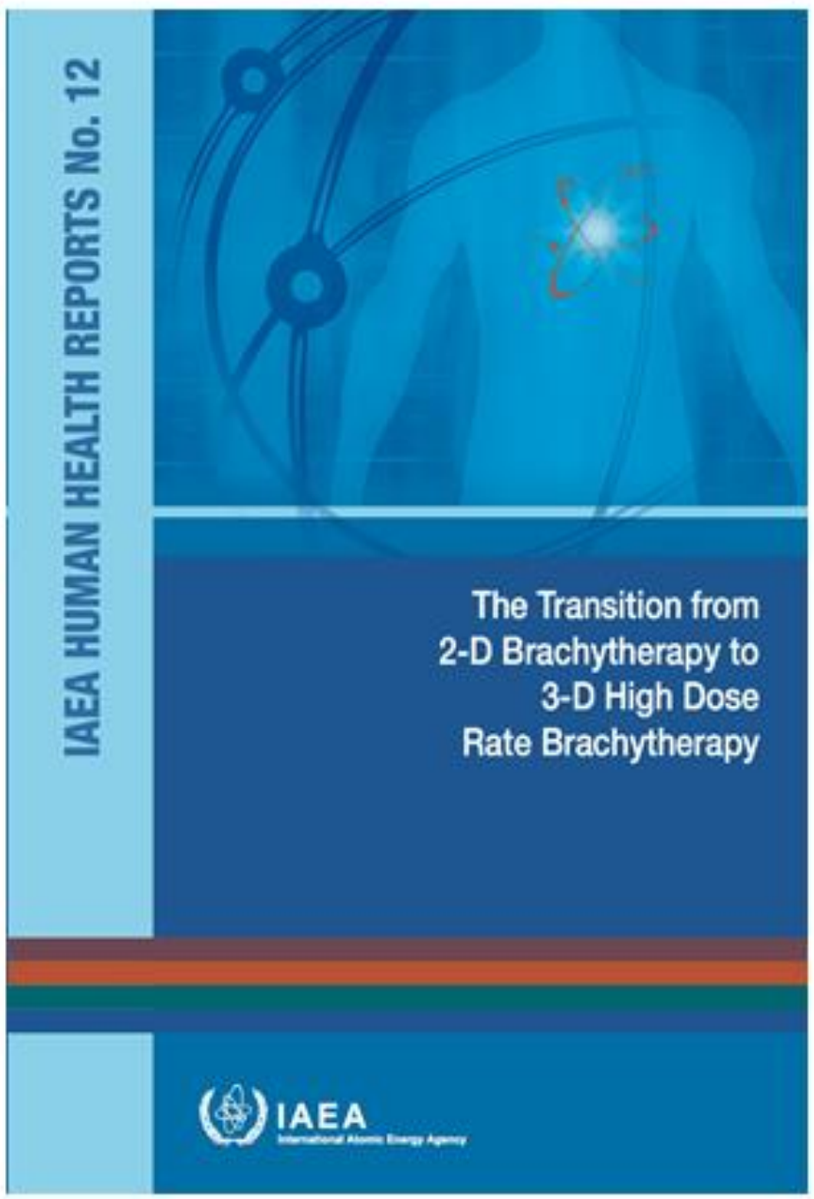
GUIDELINES AND EDUCATION

MANAGEMENT OF CERVICAL CANCER STRATEGIES FOR LIMITED-RESOURCE CENTERS (2013)



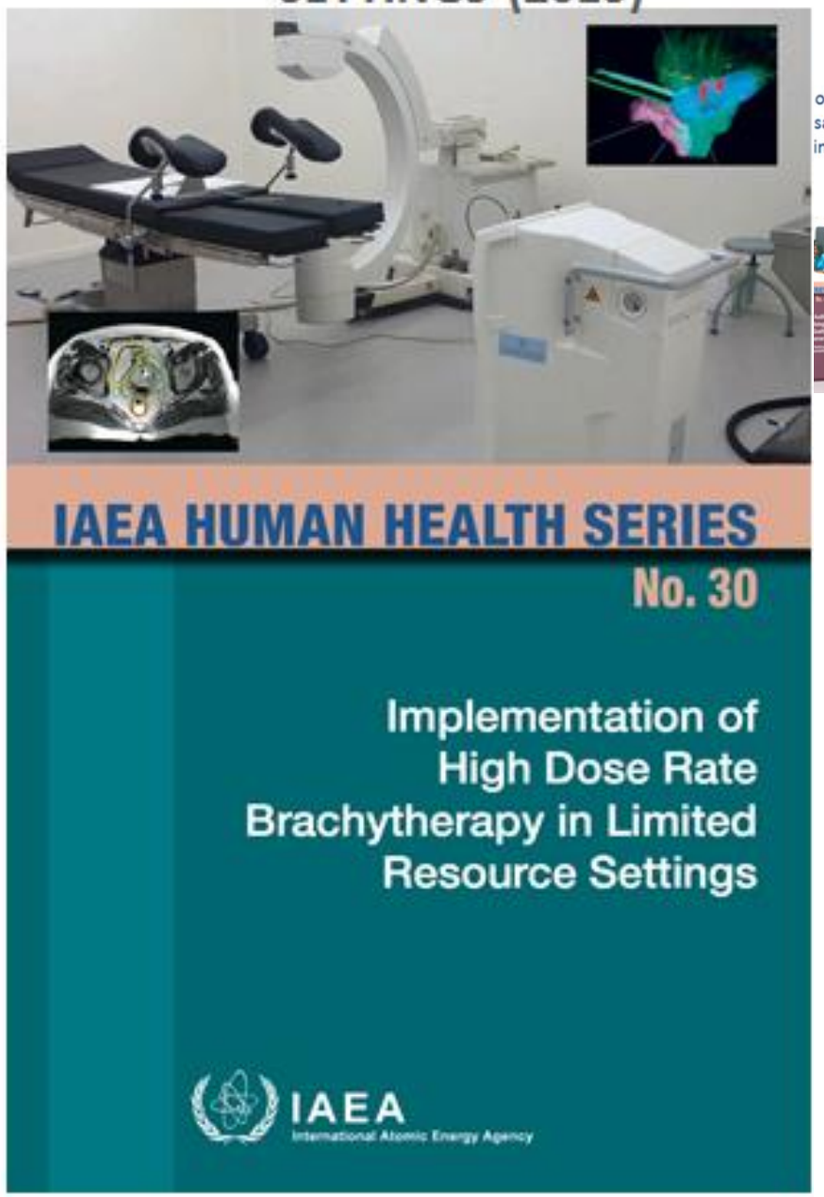
http://www-pub.iaea.org/books/iaeabooks/8735/Management-of-Cervical-Cancer-Strategies-for-Limited-resource-Centres-A-Guide-for-Radiation-Oncologists

THE TRANSITION FROM 2-D BRACHYTHERAPY TO 3-D HIGH DOSE RATE BRACHYTHERAPY (2015)



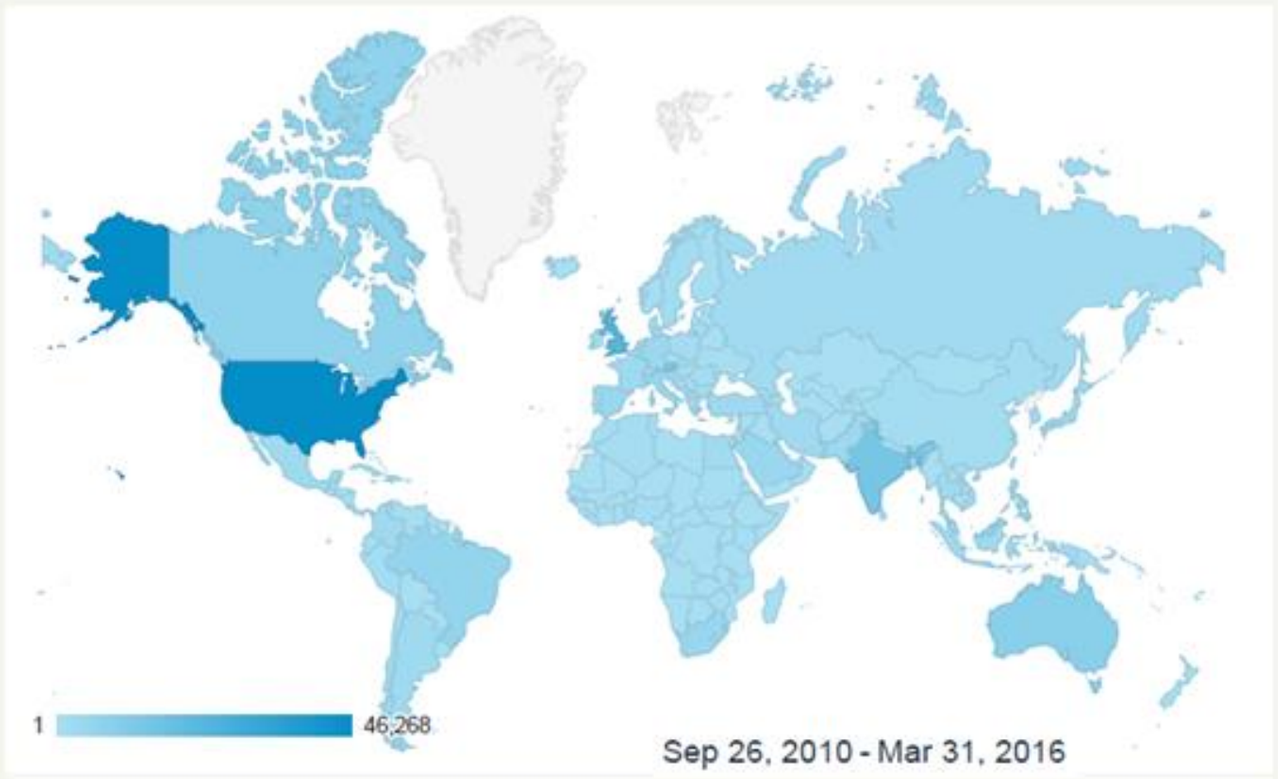
http://www-pub.iaea.org/MTCD/Publications/PDF/Pub1681web-80878722.pdf

IMPLEMENTATION OF HIGH DOSE RATE BRACHYTHERAPY IN LIMITED RESOURCE SETTINGS (2015)

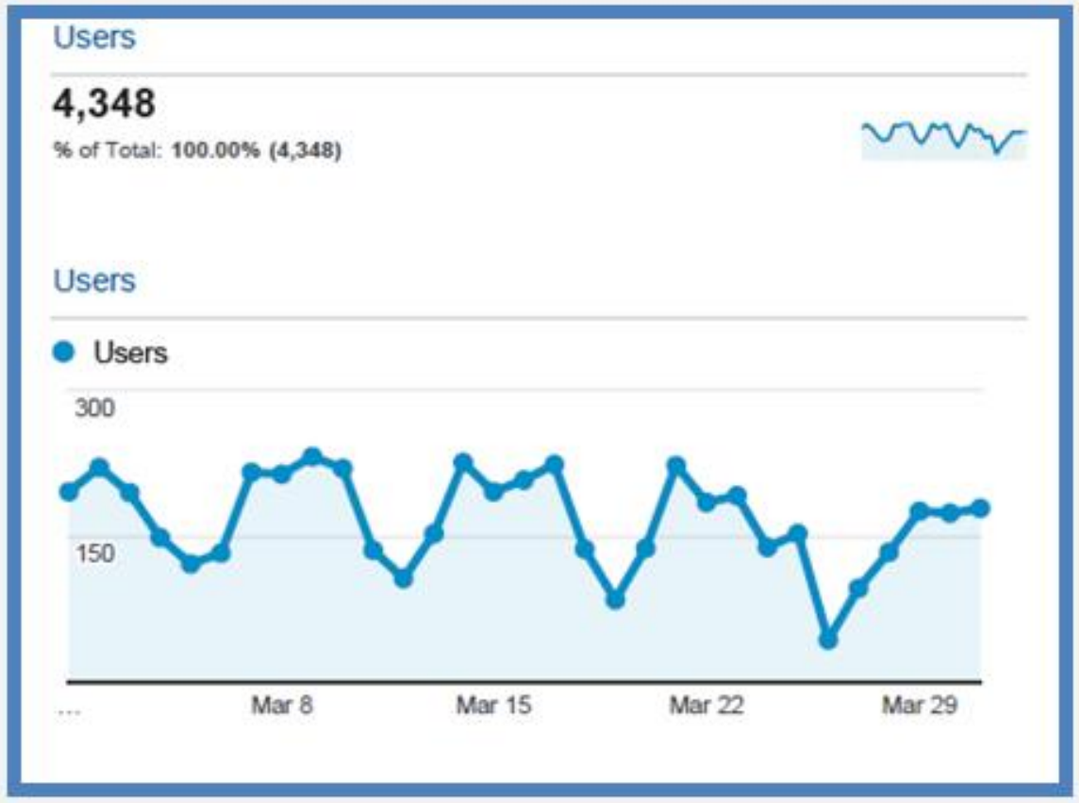


http://www-pub.iaea.org/books/iaeabooks/8735/Management-of-Cervical-Cancer-Strategies-for-Limited-resource-Centres-A-Guide-for-Radiation-Oncologists

Human Health Campus



Mar 1, 2016 - Mar 31, 2016



- Last month:
  - 4348 Users
  - 3916 New users

Implementation of successful, cost effective, evidence-based noncommunicable diseases (NCDs) interventions – How the United Nations Inter-agency Taskforce can help countries accelerate the prevention and control of NCDs by 2030

UN INTERAGENCY TASK FORCE ON NCDs #NCDs @un_ncd

Tuesday 24 May 2016 from 18:00 to 19:30 in Room XXIII
Palais des Nations, Geneva, Switzerland

UN INTERAGENCY TASK FORCE ON NCDs #NCDs @un_ncd

- This side event will pay tribute to ECOSOC's historic decision to request the UN Secretary-General to establish the UN Inter-Agency Task Force on NCDs
- Discussions will focus on the assistance provided by the Task Force in response to SDG targets 3.4 and 3.a of the 2030 Agenda for Sustainable Development in preparation for the third UN High-level Meeting on NCDs in 2018

Keynote speakers:

- Margaret Chan, Director-General, WHO
- Veronika Skvortsova, Minister of Health, Russian Federation

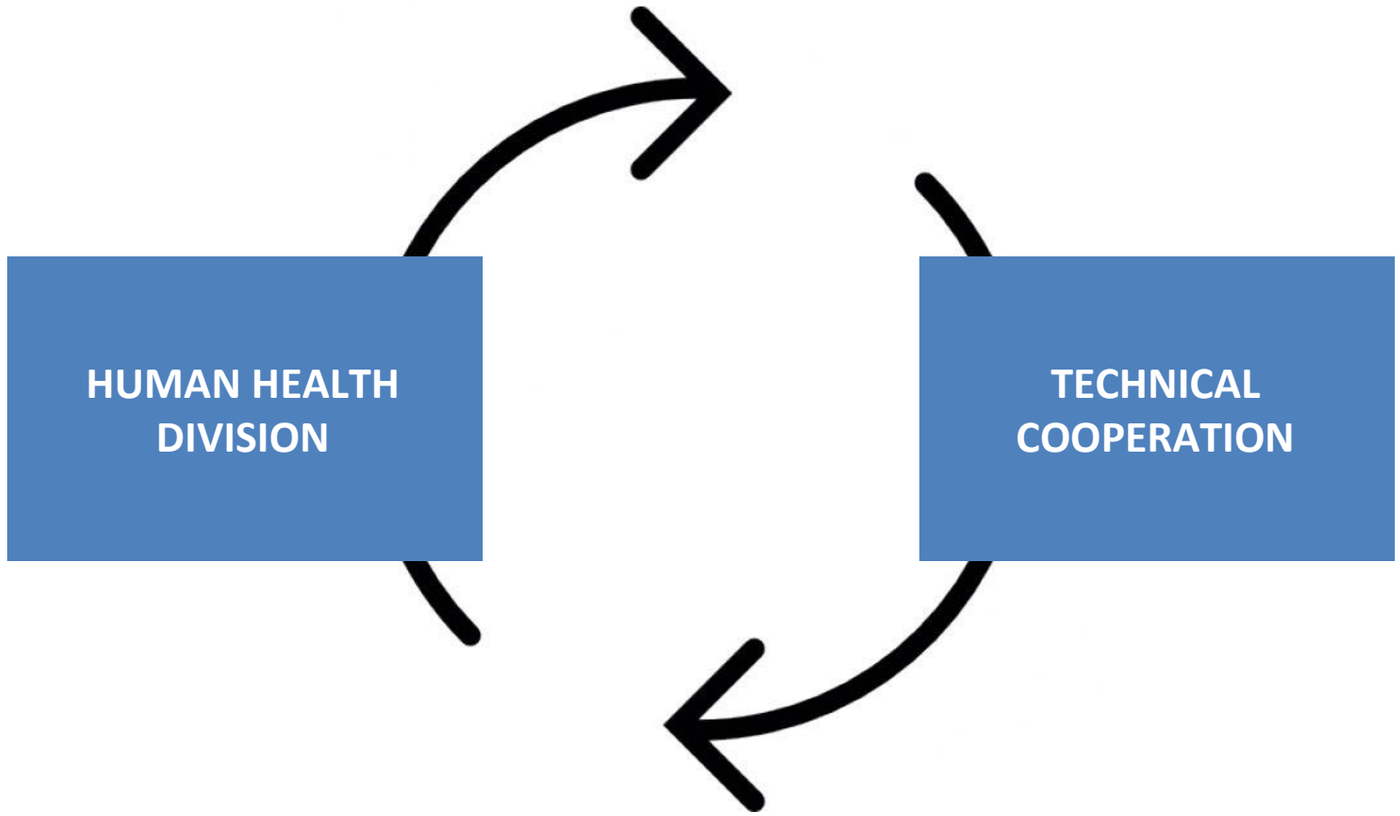
Panellists:

- Oleg Chestnov, Assistant Director-General for NCDs, WHO
- John Boyce, Minister of Health, Barbados
- Rajitha Senarathne, Minister of Health, Sri Lanka
- Cleopa Mailu, Cabinet Secretary of Health, Kenya
- Ahmed Mohammed Al-Saidi, Minister of Health, Oman
- Aníbal Velásquez Valdivia, Minister of Health, Peru
- Michael Coombs, Regional Technical Director, Ministry of Health, Jamaica
- Nguyen Minh Hang, Deputy Director General of the General Department of Preventive Medicine, Viet Nam
- Douglas Webb, Senior Advisor, Health and Development Group, UNDP
- Stefan Peterson, Associate Director, Chief Health Section, UNICEF
- Patrick Lumumba Osewe , Global Leader , Healthy Societies, World Bank
- Laura Laski, Director Sexual and Reproductive Branch, UNFPA
- May Abdel-Wahab, Director, Division of Human Health, IAEA

Moderator:

- Nick Banatvala, Senior Adviser, Office of the Assistant Director-General for NCDs, WHO

The Coordinated Research Activities are complementary to the Agency's Technical Cooperation Projects (TCPs), with the knowledge gained via coordinated research used to enhance the quality of Technical Cooperation Projects.



- CRPs are developed to solve well-defined research topics in which an appropriate number of institutes (10-15) are invited to collaborate
- CRPs have proven to be an effective means of bringing together researchers from both developing and industrialised countries to solve a problem of common interest

COORDINATED RESEARCH ACTIVITIES

LIFE CYCLE OF A CRP

Selection of topic to be included in P&B

⬇

Formulation and Submission of Detailed Proposals for New CRPs

⬇

Announcement of Approved New CRPs

⬇

Submission of Research, Technical and Doctoral Contract and Agreement Proposals

⬇

Evaluation of Research Proposals and Selection of CRP Participants

⬇

Research, Technical and Doctoral Contracts and Research Agreements

⬇

Preparation of Contracts and Agreements

⬇

Funding of the Coordinated Research Activities

⬇

Research Coordination Meetings (RCMs) 1-2-3 (+ reporting)

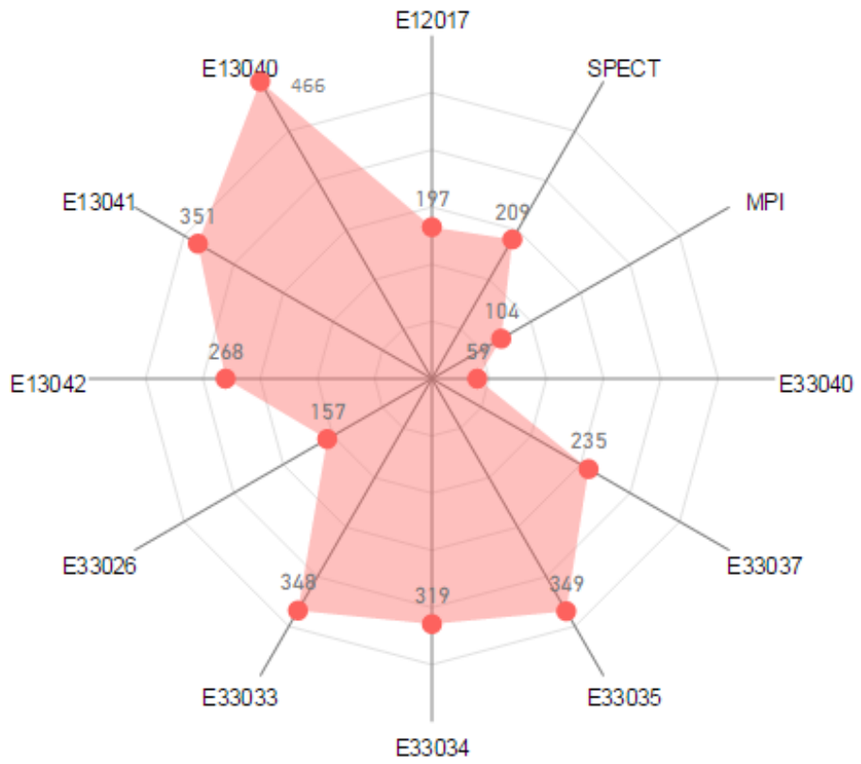
⬇

Review of CRPs Evaluation of Completed CRPs

⬇

Publication of CRP Results

Data collection using PDF forms and number of variables collected with eFormManager



E12017	Standardizing Interpretation Criteria for Early Response Evaluation with 18f-FDG PET/CT in Paediatric Lymphoma
E13040	Integrated Imaging (SPECT/CT; PET/CT; MRI) in Infection/Inflammation Spine Pathology
E13041	Nuclear Cardiology in Congestion Heart Failure
E13042	Radiation Therapy Planning of Non-small cell lung cancer based on PET/CT. (Diagnostic component)
E33026	Clinical/Radiobiological Study on Viral-Induced Cancers' Response to Radiotherapy, with Comprehensive Morbidity Assessment
E33033	Randomized Phase III Study of Radiation Therapy in Elderly and/or Frail Patients With Newly Diagnosed Glioblastoma Multiforme
E33034	Resource-Sparing Curative Treatment for Rectal Cancer
E33035	Resource Sparing Curative Radiotherapy for Locally Advanced Squamous Cell Cancer of the Head and Neck_x000D_
E33037	Evidence-Based Assessment of Radiotherapy Demand and Quality of Radiotherapy Services
E33040	Quality Assurance of Volumes Definition for Three-Dimensional Treatment Planning
MPI	MPI Clinical Audit
SPECT	IAEA CRP - SPECT

COORDINATED RESEARCH ACTIVITIES

Coordinated Research Activities (CRA) - Coordinated Research Projects (CRP)

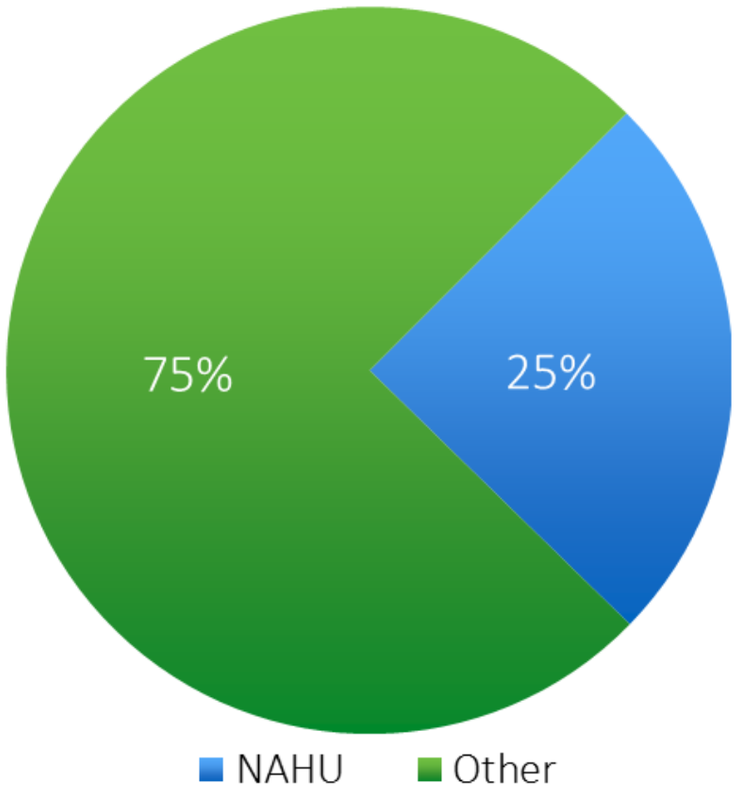
TOTAL

125 Active CRPs
73 RCMs

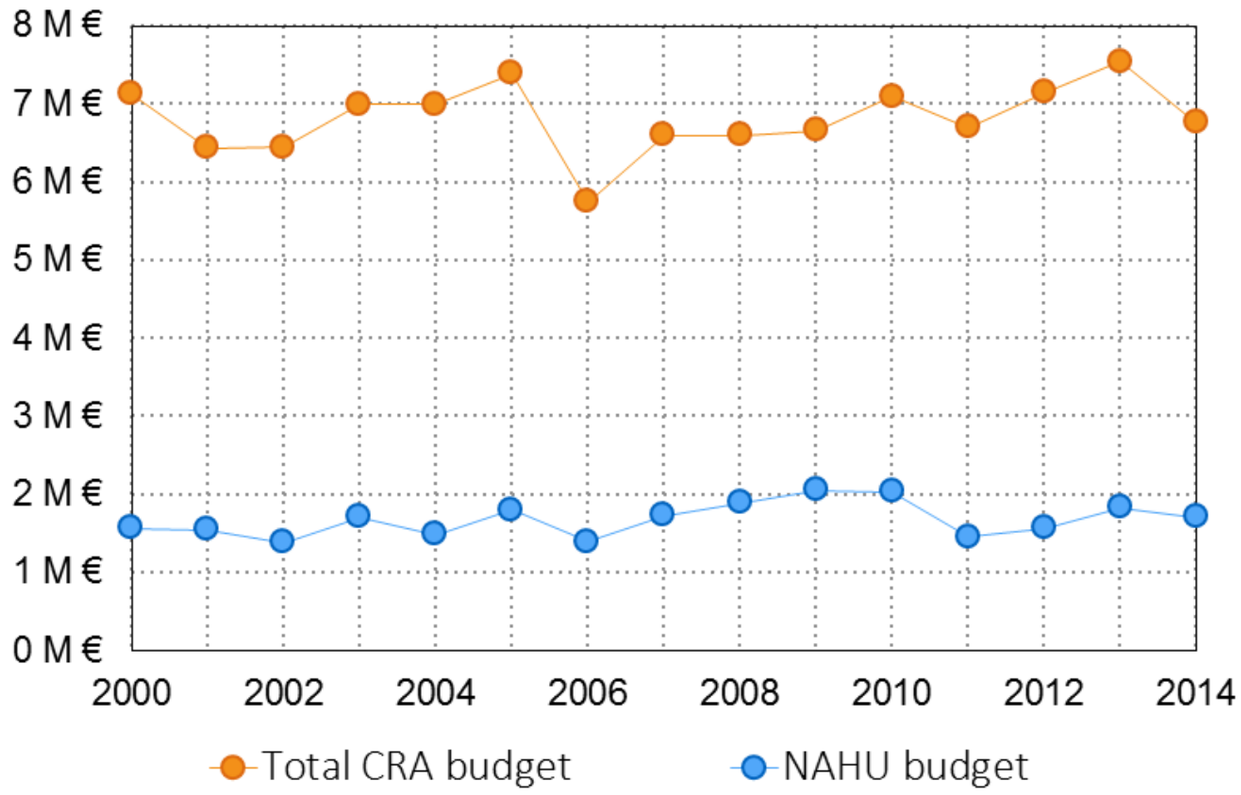
NAHU

31 Active CRPs
11 RCMs

ACTIVE CRPs AT THE END OF 2014



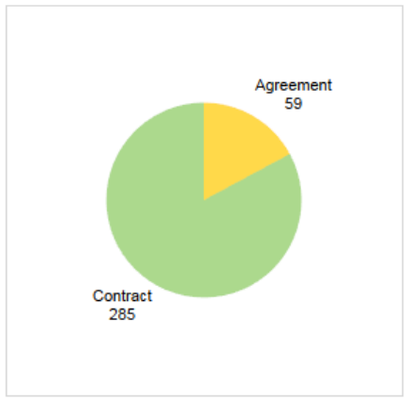
YEARLY BUDGET FOR CRA



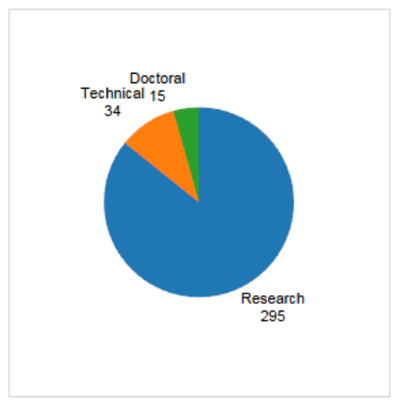
COORDINATED RESEARCH PROJECTS

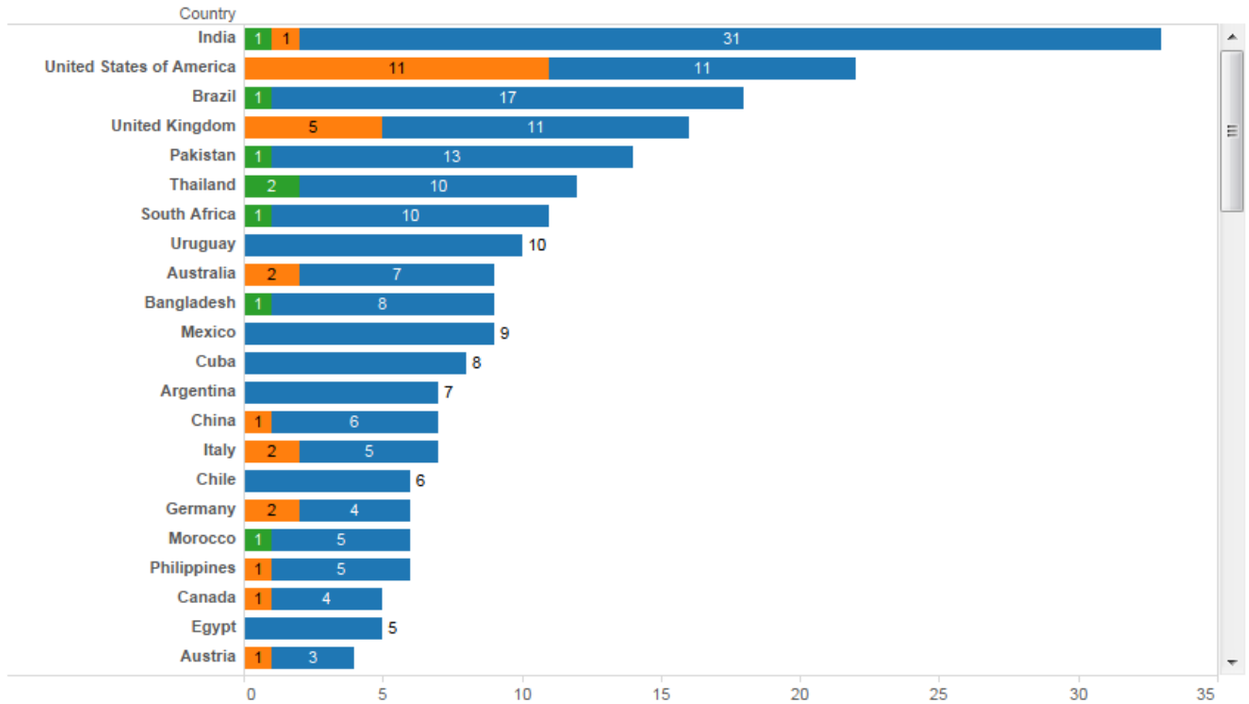
Participating countries in NAHU CRPs

Contract Type



Contract Sup Type





Coordinated Research Projects (CRP)

- Post-mastectomy radiotherapy
- Pre-operative advanced rectal cancer
- Palliative oesophagus cancer
- Glioblastoma multiforme
- Lung cancer
- Painful bone metastasis
- Head and neck cancer
- Cervical cancer

Proffered Papers

CLINICAL 3: IAEA

16:45 - 18:00 | ROOM 118-119

Chair: J. Overgaard (Denmark)

Chair: G. Jones (Canada)

16:45 IAEA-HypoX. A randomized study of nimorazole with accelerated radiotherapy in HNSCC. Report of an incomplete trial — OC-0187
M.A.H. Metwally (Denmark), R. Ali, K. Iqbal, M. Kuddu, T. Shouman, P. Strojan, R. Prasad, C. Grau, J. Overgaard

16:55 IAEA randomised study on optimization of treatment of locally advanced NSCLC using radiotherapy and chemotherapy — OC-0188
B. Jeremic (Serbia), E. Fidarova, V. Sharma, M. Faheem, A. Ameira, C. Nasr Ben Amar, A. Frobe, F.N. Lau, S. Brincat, G. Jones

17:05 Irradiation of the supraclavicular nodal region in post-mastectomy radiotherapy; an IAEA randomized trial — OC-0189
E. Rosenblatt (Austria), G.W. Jones, M. El-Mongy, H. Mahmood, J. Marinello, A. Elzawawy, S. Shahid, D. Filali-Benaceur, J. Yarney, J. Moscol Ledesma, N.S. Bese, O. Campbell

17:15 Short-course radiotherapy for locally advanced rectal cancer: an IAEA randomized trial — OC-0190
E. Rosenblatt, G.W. Jones (Canada), V. Valentini, M.A. Gambacorta, T. Menon, R. Engineer, B. Robertson, A. Frobe, A. Ulloa-Balmaceda, R. Ospino-Pena, E. Nuryadi, M. Nagarajan, R. Lakier

17:25 IAEA randomised trial of optimal single dose radiotherapy in the treatment of painful bone metastases — OC-0191
P. Hoskin (United Kingdom), A.M. Rojas, R. Jalali, A.M. Merino, A. Poitevin, S. Oucrif, S. Abdelwahab, L. Kochbati, A. Plieskiene, F. Casas, S. Stojanovic, G. Schneider, E. Fidarova, B. Jeremic

17:35 Optimal radiotherapy utilization rate in developing countries: an IAEA study — OC-0192
E. Rosenblatt, M. Barton (Australia), W. Mackillop, E. Fidarova, L. Cordero, J. Yarney, C.C. Lim, A. Abad, V. Cernea, S. Stojanovic-Rundic, P. Strojan, L. Kochbati, A. Quarneti

17:45 Current radiotherapy capacity in post-Soviet countries; an IAEA survey — OC-0193
E. Rosenblatt, E. Fidarova (Austria), O. Utehina, S. Tkachev, M. Kislyakova, N. Semikoz, V. Sinaika, V. Kim, N. Karamyan, I. Isayev, K. Akbarov, Lomidze, D.(8), O. Bondareva, P. Tuzlukov, M. Zardodkhonova, J. Alimov, G.W. Jones, M. Barton, W. Mackillop

COORDINATED RESEARCH ACTIVITIES IN CERVIX CANCER

PAST	PRESENT	FUTURE (2018-2019)
Regional hyperthermia combined with radiotherapy for uterine cervical cancers: a multi-institutional prospective randomized trial of the international atomic energy agency.	E3.30.26 Clinical/Radiobiological Study on viral-induced cancers' response to radiotherapy, with comprehensive morbidity assessment	Modern radiotherapy techniques in cervical cancer
AK-2123 (Sanazol) as a radiation sensitizer in the treatment of stage III cervical cancer: results of an IAEA multicentre randomised trial.		Image-based treatment planning in cervical cancer
A randomized clinical study to compare radical concomitant chemo-radiation against radical radiotherapy alone as treatment of carcinoma of the uterine cervix FIGO stages IB-IIIB in HIV infected patients		Quality assurance in HDR brachytherapy

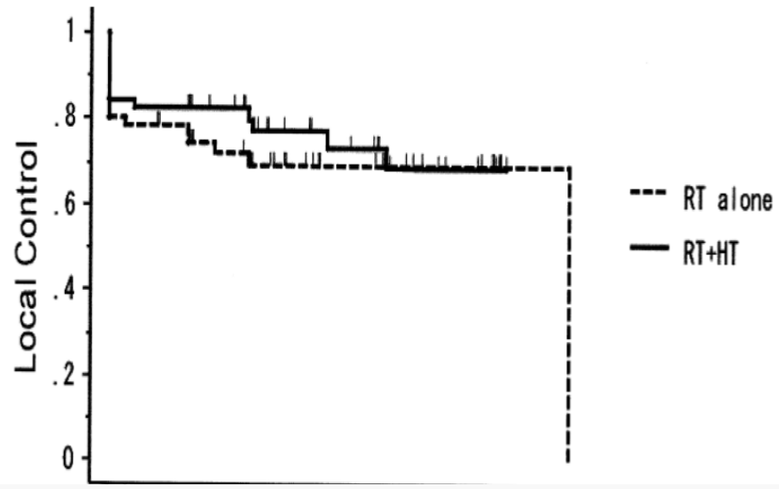
HYPERTHERMIA IN CERVIX CANCER

ELSEVIER

Int. J. Radiation Oncology Biol. Phys., Vol. 61, No. 1, pp. 145–153, 2005

0360-3016/05/$–see front matter

doi:10.1016/j.ijrobp.2004.04.057



LOCAL REGIONAL CONTROL

Patients with local control analyzed according to the treatment arm (p-0.58).

CLINICAL INVESTIGATION

REGIONAL HYPERTI
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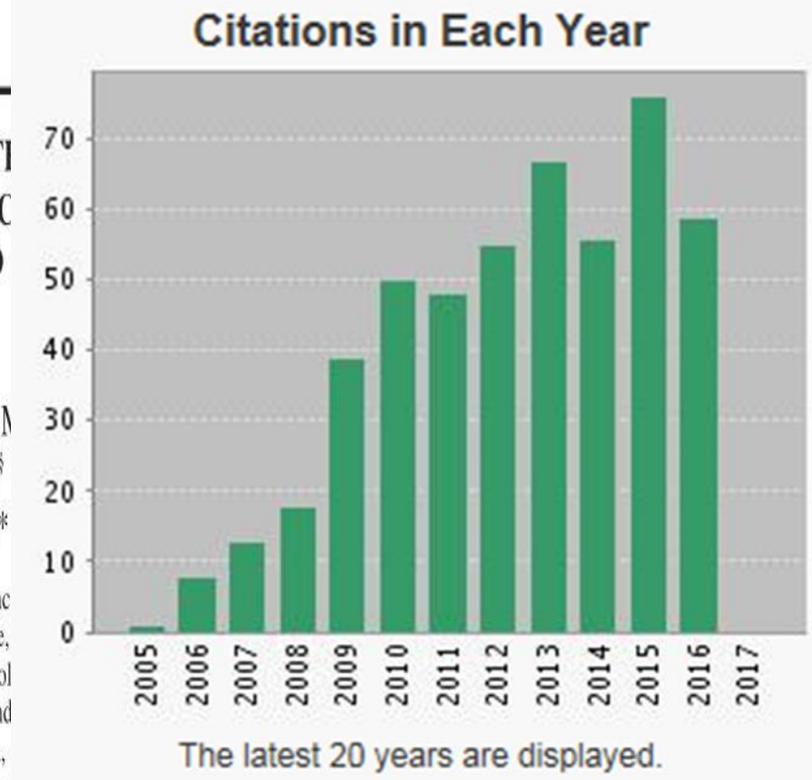
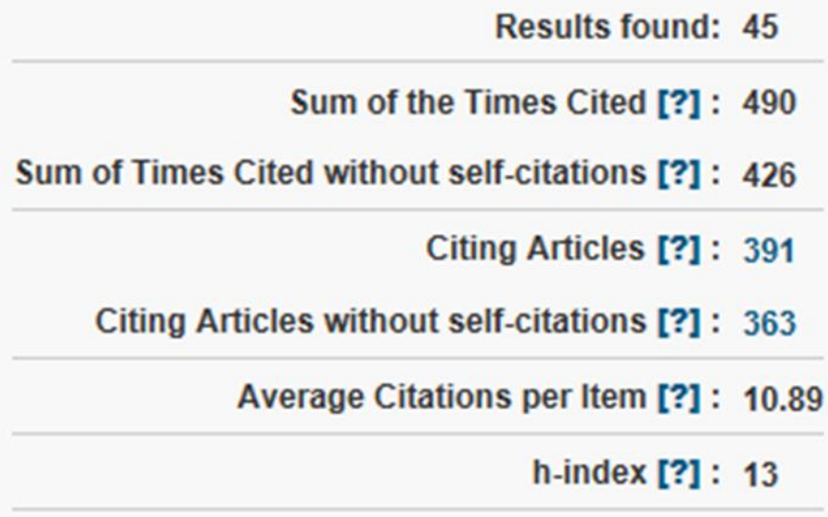
RANDOMIZED

ARUMUGAM VASANTHAN, M
ZENG ZHI-FAN, M.D.,§
HIDEO TATSUZAKI, M.D.,*

*Department of Radiation Oncology, Canc
University Graduate School of Medicine,
Korea; §Department of Radiation Oncol
Radiation Oncology, China-Japan Friend
Institute of Radiological Sciences, Chiba,





L SURVIVAL

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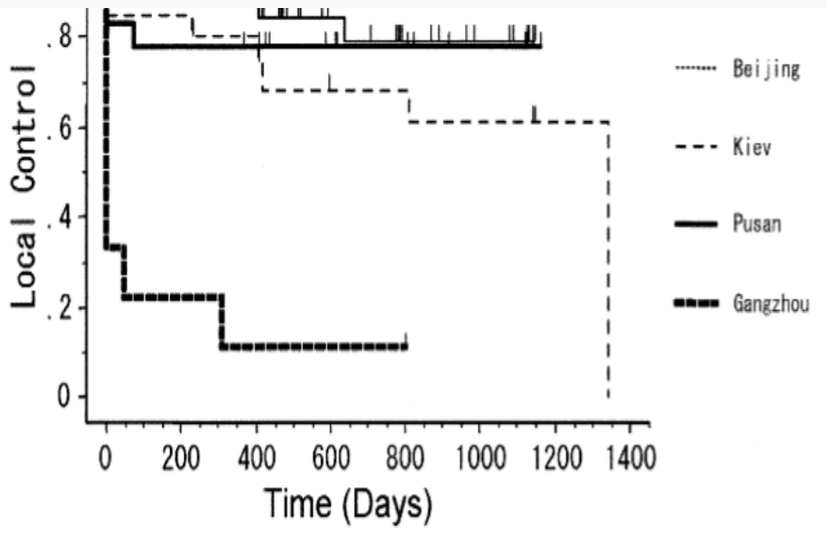
No benefit from the addition of hyperthermia to radiotherapy in the treatment of locally advanced carcinoma of the uterine cervix.
Significantly greater acute toxicity in patients receiving hyperthermia



CONTROL
BY CENTER

Patients with local control, analyzed according to institution (p= 0.0001)

HYPOXIC SENSITIZERS IN CERVIX CANCER

Radiotherapy and Oncology 82 (2007) 24–29
www.thegreenjournal.com

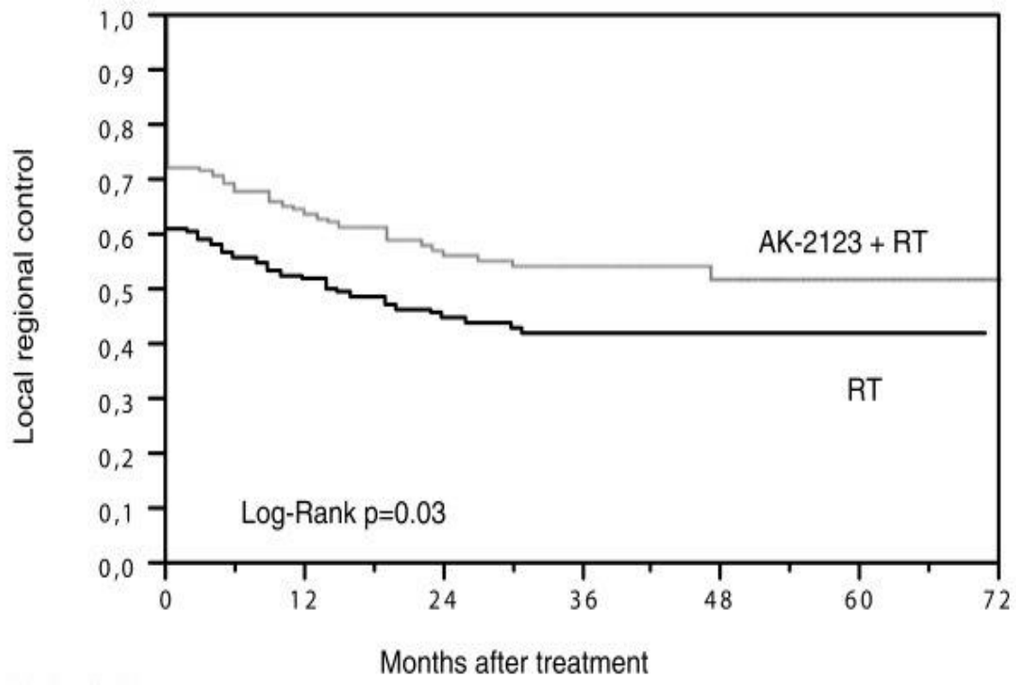
Phase III randomised trial

AK-2123 (Sanazol) as a radiation sensitizer in the treatment of stage III cervical cancer: Results of an IAEA multicentre randomised trial☆

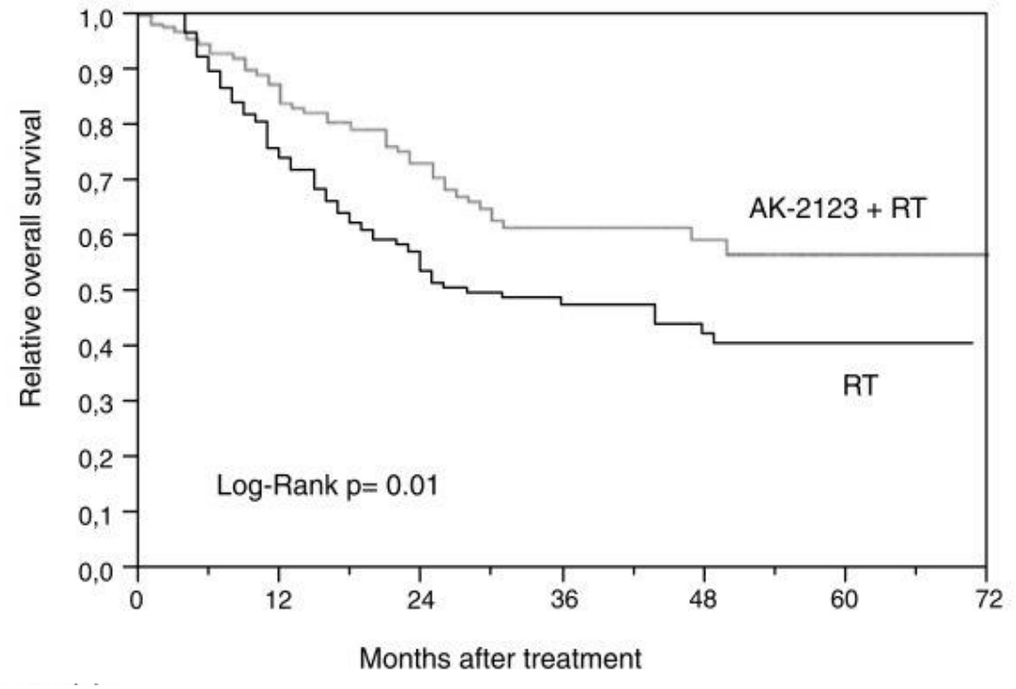
Werner Dobrowsky[a,*], Nagraj G. Huigol[b], Ranapala S. Jayatilake[c], Noor-I-Alam Kizilbash[d], Sait Okkan[e], V. Tsutomu Kagiya[f], Hideo Tatsuzaki[g]

[a]Northern Centre for Cancer Treatment, Newcastle General Hospital, Newcastle upon Tyne, UK, [b]Division of Radiation Oncology, Dr. Nanavati Hospital and MRC, Bombay, India, [c]38 Nelson Place, Colombo, Sri Lanka, [d]Nuclear Medicine, Oncology and Radiotherapy Institute, Islamabad, Pakistan, [e]Radiation Oncology Department, Cerraphasa Medical School, Istanbul, Turkey, [f]Health Research Foundation, Kyoto, Japan, [g]Section of Applied Radiation Biology and Radiotherapy, International Atomic Energy Agency, Vienna, Austria

The addition of AK-2123 to radical radiotherapy significantly increases **local tumor control and survival** in advanced squamous cell cancer of the uterine cervix **without additional toxicity**



The rate of local tumour control was significantly higher in the group after radiotherapy and additional administration of AK-2123.



The actuarial survival at 60 months was 57% (7/12) after RT+AK-2123, compared to 41% (5/11) after RT (Log Rank p = 0.01).

HIV AND CERVIX CANCER

Chemo-radiotherapy for cervical cancer in HIV positive patients in low-resource settings: an International Atomic Energy Agency clinical trial.

Eduardo Zubizarreta, Himu Lukka, Virginia Hammill, Greg Pond, Reena Engineer, Roy H. Lakier, Joseph B. Kigula Mugambe, Ntokozo Ndlovu, Twalib Ngoma

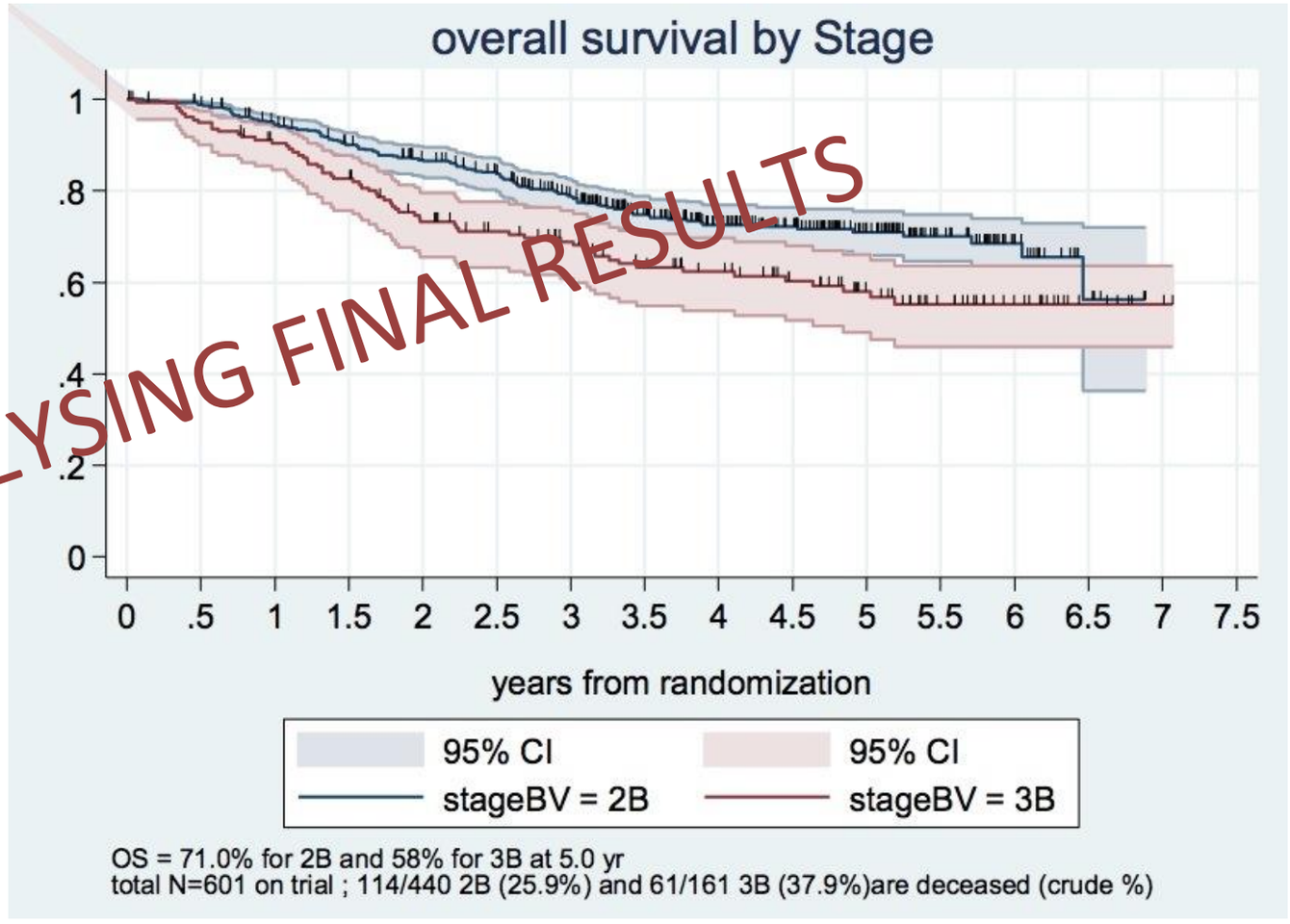
- Between 2004 and 2009, 326 HIV positive patients with cervical cancer were recruited in five radiotherapy departments :
- Mumbai (India), Johannesburg (South Africa), Dar Es Salam (Tanzania), Kampala (Uganda) and Harare (Zimbabwe).
- The toxicity during treatment (both haematological and non-haematological) was slightly higher in the cisplatin treated arm although this was not statistically significant. Note would have to be made that 35.2% of cisplatin patients received cisplatin according to protocol.
- Therefore, one can conclude that there is no evidence of any increased acute toxicity at 3 months for patients treated with cisplatin in addition to radiotherapy when compared to patients treated with radiotherapy alone. Longer term assessment of pelvic control and overall survival will require more robust follow-up strategies when accruing patients in this particular geographic and economic setting.

DUE TO POOR FOLLOW-UP THE TRIAL FAILED TO SHOW LONG TERM RESULTS

ALTERED FRACTIONATIONS IN CERVIX CANCER

Clinical/Radiobiological Study on viral-induced cancers' response to radiotherapy, with comprehensive morbidity assessment (E3.30.26)

ARM	EBRT	BT	CT	OTT
ARM 1	46 Gy/23 EBRT	4 x 7 Gy HDR	No CDDP	40 days total
ARM 2	46 Gy/23 EBRT	2 x 9 Gy HDR	No CDDP	40 days total
ARM 3	46 Gy/23 EBRT	4 x 7 Gy HDR	Weekly CDDP (50-60 mg/m2)	40 days total
ARM 4	46 Gy/23 EBRT	2 x 9 Gy HDR	Weekly CDDP (50-60 mg/m2)	40 days total

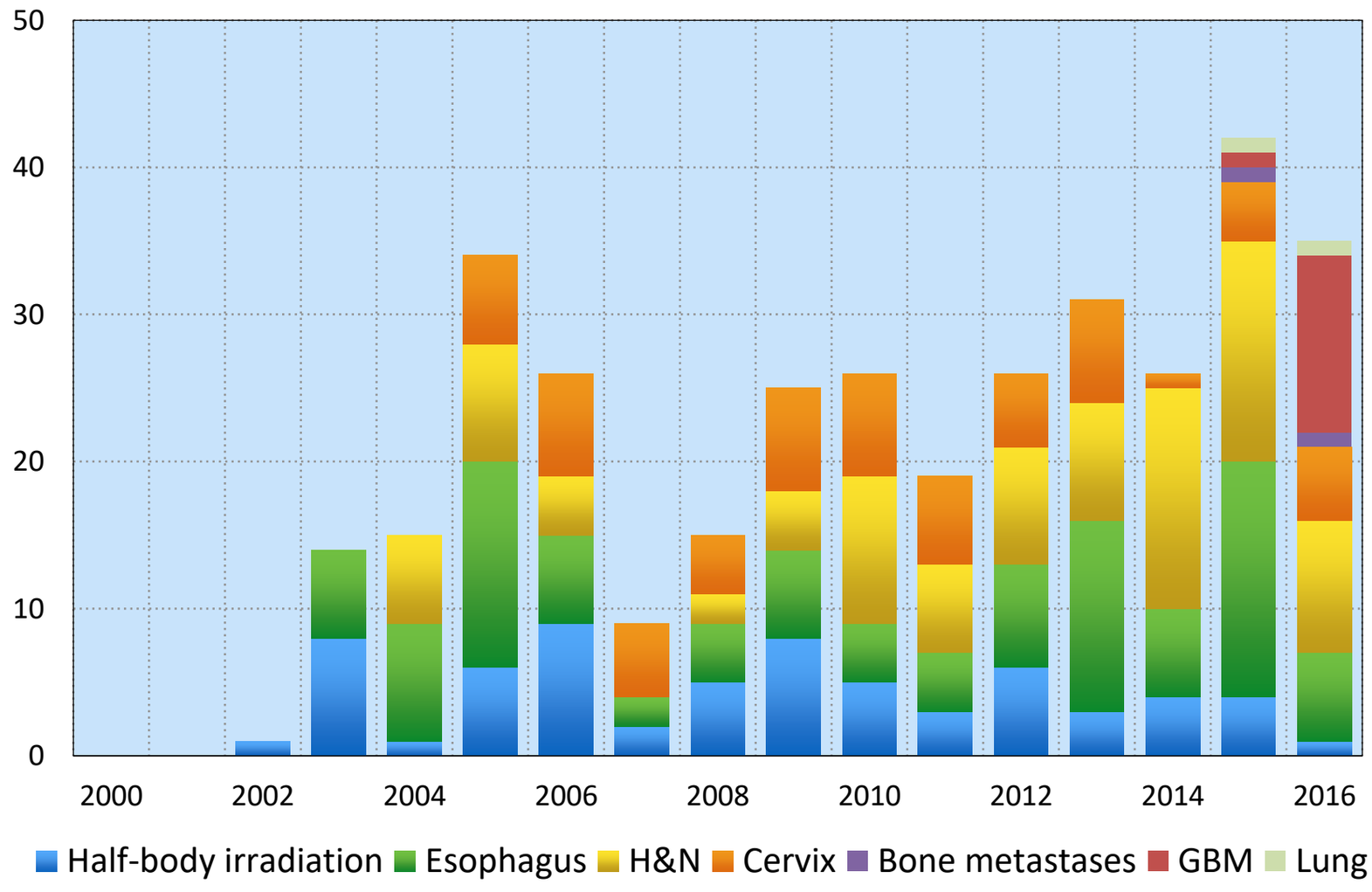


- <u>5-yr overall survival :</u> 62.2% in arm 1, 68.3% in arm 2, 73.1% in arm 3, and 65.1% in arm 4 (p=0.1 with n=601)
- For the 440 <u>stage IIB</u> patients there was no statistical difference in survival with 4 HDR vs. 2 HDR, and no different with vs. without chemotherapy.

Conclusion & Opportunities for Collaboration

- Promoting clinical research adapted to LMIC needs
- Producing adapted recommendations (clinical and technological)
- Educating professionals in the field of radiation medicine
- Implementing the Technical Cooperation Programme

- Consultant :
  - protocol development
  - support analysis & reporting of results
- Research contract/agreement holder
  - Participate in the Study as a PI.
- Technical Support -contract eg QA
- Increase awareness of the study



CITATION ANALYSIS OF PEER-REVIEWED PAPERS REPORTING CRP DATA
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THANK YOU