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Mapping research ethics committees in Africa: evidence of the growth of ethics review of health research in Africa

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Abstract

Health research initiatives worldwide are growing in scope and complexity, particularly as they move into the developing world. Expanding health research activity in low- and middle-income countries has resulted in a commensurate rise in the need for sound ethical review structures and functions in the form of Research Ethics Committees (RECs).

The urgent need for continued capacity development in Africa has necessitated research initiatives to identify existing capacity. This discussion paper describes the mapping of RECs in Africa through MARC (Mapping African Research Ethics Capacity) project, second phase (2012 to date) and discusses the findings. MARC provides a platform and tool on COHRED's Health Research HRWeb, which can be used by RECs and key stakeholders in health research in Africa to identify capacity, constraints and development needs.

KEYWORDS

Administrators, Africa, Harmonization, Information management, Mapping, Research Ethics Committees

1 | BACKGROUND: THE MARC PROJECT

The MARC (Mapping African Research Ethics Review and Medicines Regulatory Capacity) initiative is a project established by COHRED (Council on Health Research for Development[1]) in partnership with the SARETI program (South African Research Ethics Training Initiative[2]) to map health research oversight and regulatory activities in Africa. The initiative was funded by EDCTP (European and Developing Countries Clinical Trials Partnership[3]) and an unconditional grant from Pfizer Inc.

Efforts to strengthen research ethics and drug regulatory capacity in Africa have been a direct response to the growth of clinical research in Africa during the past few decades, including growth in international collaborative research. The past decade has thus seen several major investments aimed at strengthening research ethics capacity in the developing world, through building academic and intellectual capacity in research ethics (Wellcome Trust), building research ethics review capacity (Fogarty International Center of the US National Institutes of Health[4]) and more recently EDCTP, WHO/UNAIDS, Family Health International, the US NIH Clinical Center for Bioethics and other players have also made smaller, yet significant efforts. Estimated total investment in research ethics capacity development in Africa alone between 2002 and 2013 exceeds US$ 19 million.[5] These investments have targeted training for existing Research Ethics Committees (RECs) and establishment of new RECs in countries or regions without functional RECs. Given the rise of investment in research ethics capacity development and REC establishment and strengthening, it is appropriate that efforts be made to map progress to date. An earlier paper[6] described phase 1 of the MARC project (2010-2012), and presented earlier progress made in Africa.

[1]COHRED http://www.cohred.org

[2]SARETI http://sareti.ukzn.ac.za/Homepage.aspx

[3]EDCTP http://www.edctp.org

[4]Funded by a supplementary award from the Fogarty International Center of the US National Institutes of Health award no. 3R25TW001599-11S2.

[5]Ndebele P, Wassenaar D, Benatar S, Fleischer T, Kruger M & Adebamowo C, Kass N, Meslin E, Hyder A. Research Ethics capacity building in Sub-Saharan Africa: A review of NIH Fogarty funded programs 2000-2012. *J Empir Res Hum Res Ethics*. 2014;9(2):24-40.

[6]IJsselmuiden C, Marais D, Wassenaar D, Mokgatla B. Mapping African ethical review committee activity onto capacity needs: the MARC initiative and HRWeb's interactive database of RECs in Africa. *Dev World Bioeth*. 2012;12:74-86.

The aim of this paper is to describe the mapping of RECs in Africa through the second phase of the MARC project (2012 to date). Data on drug regulators will be presented in a separate article. MARC phase I focused on locating, capturing and uploading contact details of RECs in Africa.[7] RECs were invited to enter their information into the MARC database hosted on the HRWeb platform (Health Research Web: www.healthresearchweb.org and www.researchethicsweb.org). Such information included institutional details, research protocol management procedures, REC member details, terms of office, training requirements, finances, resources, REC procedures as well as availability of secretariat staff. MARC Phase II (2012 – 2014) focused on analysis of data collected during MARC Phase I, as well as developing and providing solutions to some of the bottlenecks identified during phase I: this includes i) improving the efficiency of RECs and quality of reviews through development of an online information management system as well as ii) developing a platform that provides an interactive space[8] for RECs to discuss complex ethical issues in the conduct of multicenter trial reviews. This paper also discusses the capacity needs of RECs as identified by the information entered into the MARC database by RECs themselves.

2 | METHODS

Past surveys of African RECs have not focused on the whole continent. For example, one paper focused on RECs that were being considered for strengthening[9] another focused on RECs that programme trainees came from,[10] another focused on RECs in countries that were being considered for HIV vaccine trials.[11] Other papers have focused on specific countries[12] or selected African regions.[13]

To date, the MARC initiative is the only Africa-wide initiative that seeks to both study and support RECs across the whole continent, without focusing on specific conditions, institutions, countries or regions. The findings reported in this paper are drawn from data entered by REC representatives themselves into the HRWeb database.

2.1 | Methods

RECs were invited in several ways, including email, site visits, and announcements at conferences and workshops to enter their details. This would improve their visibility and their access to networking, related resources and benefits. During Phase II, the MARC initiative engaged "MARC ambassadors" as well as other partners such as the Cameroon Bioethics Initiative (CAMBIN14) who were tasked to assist in mapping RECs in Francophone and Arabophone countries. This paper reports on updated data extracted from HRWeb, captured on an excel spreadsheet for analysis.

3 | RESULTS

3.1 | Number of RECs and countries registered on MARC Web

At the time of writing, a total of 167 African RECs had registered on HRWeb. Of these, 89 were registered during MARC Phase I while 78 additional RECs were registered during Phase II, a growth of 88%. There were thirty-five (35) African countries represented on HRWeb. Twenty-six (26) countries registered during MARC Phase I while nine (9) registered during phase II, a 35% increase. Twenty-three (23) countries registered during Phase I registered additional RECs during Phase II. At the time of writing, nineteen (19) African countries had not yet registered any REC – these include Angola, Burundi, Chad, Eritrea, Guinea, Guinea Bissau, Mauritania, Morocco, Mozambique, Sierra Leone, Somalia, Cape Verde, Comoros, Lesotho, Sao Tome and Principe, Seychelles, Swaziland, Western Sahara and Djibouti. Twenty percent (20%; *n*=34) of registered RECs were categorized as national RECs while 75% (*n*=125) were institutional RECs and 3% (*n*=5) were private RECs. About 2% (*n*=3) were categorized as "other".

3.2 | Country rankings by total number of RECs listed

The top 11 countries by the number of RECs listed in HRWeb were South Africa (30), Nigeria (25), Egypt (23), Uganda (9), Cameroon (8), Ethiopia, Sudan (7 each) Tanzania (5), Botswana, Burkina Faso, DRC (4 each). Table 1 shows the rankings for all African Countries.

3.3 | Listed RECs by region, income grouping and language

In both Phase I and Phase II, the Southern African region had the most RECs listed on HRWeb, followed in descending order by: Western, Northern, Eastern and Central Africa. The Eastern region has had the largest increase (58%) in listed RECs since 2010, followed in descending order by Central, Northern, Western and Southern Africa. The Eastern region also had the largest percentage (58%) of RECs with complete information listed on HRWeb. With regard to

[7] IJsselmuiden C et al., *op. cit*. note 6, pp. 74-86.

[8] Ndebele P et al., *op. cit*. note 5, pp. 24-40; IJsselmuiden C et al., *op. cit*. note 6, pp. 74-86.

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[11] Milford C, Wassenaar D, Slack C. Resources and needs of research ethics committees in Africa: Preparations for HIV vaccine trials. *IRB, Ethics & Human Research*. 2007;1-9.;

[12] Ateudjieu J, Williams J, Hirtle M, Baume C, Ikingura J, Niaré A, Sprumont D. Training needs assessment in research ethics evaluation among research ethics committee members in three African countries: Cameroon, Mali, and Tanzania. *Dev World Bioeth*. 2010;10(2):88-98; Ikingura J, Kruger M, Zeleke W. Health research ethics review and needs of institutional ethics committees in Tanzania. *Tanzania Journal of Health Research*. 2008;9:154-158; Moodley K & Myer L. Health research ethics committees in South Africa 12 years into democracy. *BMC Med Ethics*. 2007;8:1-8.

[13] Effa P, Massougbodji A, Ntoumi F, Hirsch F, Debois H, Vicari M, Kilama WEN. Ethics committees in western and central Africa: concrete foundations. *Dev World Bioeth*. 2007;7:136-142; Kirigia JM, Wambebe C, Baba-Moussa A. Status of national research bioethics committees in the WHO African region. *BMC Med Ethics*. 2005;6:10.

[14] CAMBIN http://www.cambin.org/

TABLE 1 Country rankings by total number of RECs

Country	No of RECs on HRWeb 2013	Country rank according on no of RECs
South Africa	30	1
Nigeria	25	2
Egypt	23	3
Uganda	9	4
Cameroon	8	5
Ethiopia,Sudan	7	6
Tanzania	5	7
Botswana, Burkina Faso, DRC	4	8
Benin, Ghana, Kenya, Rwanda, Zambia, Zimbabwe	3	9
Algeria, Congo Republic, Liberia, Madagascar, Malawi, Mauritius	2	10
CAR, Côte d'Ivoire, Gabon, Gambia, Libya, Mali, Namibia, Niger, Senegal, Togo, Tunisia	1	11
Angola, Burundi, Chad, Eritrea, Guinea, Guinea-Bissau, Mauritania, Morocco, Mozambique, Sierra Leone, Somalia, Cape Verde, comoros, Lesotho, Sao Tome and Principe, Seychelles, Swaziland, Western Sahara, Djibouti	0	0

TABLE 2 Registered RECs by region, income grouping and language

	Region / Income / Language Grouping	No. RECs on HRWeb Phase 1	No. RECs on HRWeb Phase 2	% increase on HRweb
REGION	Southern	30	45	33%
	Eastern	13	31	58%
	Western	24	41	41%
	Northern	17	34	50%
	Central	7	16	56%
INCOME	Low Income	21	57	63%
	Lower Middle	36	69	48%
	Upper Middle	34	41	17%
LANGUAGE	Anglophone	55	91	40%
	Francophone	16	35	54%
	Lusophone	0	0	0%
	Arabophone	20	41	51%

income grouping in both Phase I and Phase II, the lower middle-income countries had the most RECs listed on HRWeb, followed by low-income and then upper middle-income countries (country income classification done according to the World Bank Classification[15]). The low-income countries had the largest increase (60%) in listed RECs since Phase I, followed by lower-middle and then upper-middle-income countries. The low-income grouping had the largest percentage (54%) of RECs with comprehensive information listed on HRWeb.

With regard to language groups, in Phase I and Phase II, African Anglophone countries had the most RECs listed on HRWeb, followed in descending order by: Arab-speaking, Francophone, and Lusophone countries. Lusophone countries had no RECs listed on HRWeb. The Francophone group had the largest increase (54%) in listed RECs since 2010, followed in descending order by Arab-speaking and Anglophone. The Francophone grouping had the largest percentage (43%) of RECs with comprehensive information listed on HRWeb. Table 2 shows the distribution of registered RECs by region, income grouping and language.

3.4 | Completeness of REC information in HRWEB

While there were 167 RECs listed in HRWeb, not all of them provided full requested information. Regarding infrastructure, 47% of listed RECs provided complete information. 57% provided information on finance, review procedures (96%), membership (54%) and training

[15]Available at: http://webcache.googleusercontent.com/search?q=cache:CFnEFt5VkogJ:siteresources.worldbank.org/DATASTATISTICS/Resources/CLASS.XLS+&cd=8&hl=en&ct=clnk&gl=bw [Accessed 23 Nov 2016].

TABLE 3 Resources that are available for RECs

	Category	Detail	No of RECs that have provided information	% of total on HRWeb (*N*=167)
INFRASTRUCTURE	Infrastructure	**Some info listed on infrastructure***	**80**	47%
		Offices	67	40%
		Telephone	65	39%
		Computer	73	44%
		Internet Connection	62	38%
		Photocopier	47	28%
		Fax line	30	18%
		All of the above	22	13%
		All of the above except fax line	17	10%
		No data on infrastructure	89	53%
FINANCES		**Some info listed on finances***	**96**	57%
	Organizational budget for R4H	Organizational budget for running the REC	57	34%
		No organizational budget for health research	37	22%
		No data on organizational budget	71	43%
	Member remuneration	Members remunerated	32	19%
		Members not remunerated	59	35%
		No data on remuneration	74	44%

(89%). Some RECs provided no information on the following items: infrastructure (53%), finance (43%), review procedures (4%), membership (46%) and training (11%).

3.5 | Resources available to RECs

With regard to availability of infrastructure, 80 RECs (48%) had some information listed on their infrastructure, while (52%) of RECs listed provided no data on infrastructure. Of those RECs that listed information on infrastructure (*n*=80), the majority had computers (91%), followed by office space (84%), telephones (81%), internet connections (78%), photocopier (59%), fax line (38%) and all of the above (28%). Regarding REC finances, 96 (57%) gave some data on finances. Of these, most had an organisational budget for running the REC (59%). Most did not remunerate their members (61%). Table 3 provides detailed information on the resources available to listed RECs.

3.6 | Information on processing of proposals

Of the 167 RECs, 95% provided some information on review procedures. Of these, most accepted submissions in hard copy by mail or by hand only (48%), followed by both hard copy and email submissions (26%) and email submissions only (26%). The majority had monthly review meetings (53%), followed by "other" (22%), quarterly (11%), every two months (6%), no data (5%), and every two weeks (3%). Most required protocols to be submitted less than a month before review meetings (37%), followed by 2 months in advance (32%), 1 month in advance (25%) and "other" (6%). Table 4 provides detailed information on the processing of proposals by RECs.

3.7 | REC membership and REC staff

Ninety-one RECs (54% of the total RECs listed) had some information listed on membership and REC staff. Of these, 72% had an administrator separate from the chairperson, 38% had a full-time administrator while 47% had a part-time administrator, while 15% indicated that they did not have an administrator. In such committees, the chairperson or other REC member doubled as the administrator. In this group of RECs, 75% had community representatives as members. The average number of community representatives per REC was 2.

3.8 | Demographics of REC membership

Of the RECs that listed data on membership gender (*n*=91), 93% had female members. The average number of female members per committee was 5. The majority of RECs had membership in the 41-50 age group (71%), followed by the 51-60 age group (63%), the 31-40 age group (54%), >60 age group (44%), and ≤30 age group (13%). The average number of members per age group was as follows: ≤ 30 ($\dot{x}$ = 1); 31-40 ($\dot{x}$ = 3); 41-50 ($\dot{x}$ = 5); 51-60 ($\dot{x}$ = 4); and >60 ($\dot{x}$ = 3). Table 5 provides a summary of REC member demographics.

Regarding terms of office for REC members, the majority (56%) did not list any data on terms of office. Of the RECs that listed some data on membership (*n*=75), the majority had a term of office of 3 years (64%), followed by 2 years (28%), 4 years (5%) and 5 years (3%). Of

TABLE 4 Processing of research proposals by RECs

Category	Detail	Number of RECs that have provided information	% of total on HRWeb (*N*=167)
REVIEW SUBMISSIONS	RECs with some info on review procedures*	160	96%
	Hard copy by mail or hand submissions only	73	44%
	Email submissions only	41	25%
	Both types of submissions	42	25%
	Other	4	2%
	No data on submissions	7	5%
REVIEW MEETING FREQUENCY	Every 2 weeks	7	4%
	Monthly	84	50%
	Every 2 months	9	5%
	Quarterly	18	11%
	Biannually	2	1%
	On demand	4	2%
	Other	36	21%
	No data on frequency	7	4%
	RECs with info on Submission Period	154	92%
ADVANCE SUBMISSION PERIOD	<1 month	57	34%
	1 month	39	23%
	2 months	49	29%
	Other	9	5%
	No data on advance period	13	9%

the RECs that provided information on renewable terms, most RECs did not renew membership (39%), followed by renewable once (25%), renewable twice (23%), and an unlimited term (13%). Table 5 shows more detail on REC membership and REC staff.

3.9 | Training Requirements for members

Ninety RECs (53%) provided some information on training requirements. Of these, the majority had training requirements (82%). Most also highlighted continuous education (89%) as a requirement. In addition, 89% of RECs had 'qualified ethicists' as part of their membership, but unfortunately, we do not know how this term was defined – indeed there is no globally accepted definition of what a trained research ethicist is, nor whether such standardization would be desirable. Most RECs provided information on level of training (*n*=149). 49% of RECs indicated that they had members who had attended short courses on ethics review, 28% had members with relevant degree qualifications, 11% had members who had attended other types of formal training. In total, 88% of REC members seem to have received some sort of training with 12% of members reporting no training relevant to ethics review. The average number of trained REC members reporting ethics training at degree levels per committee was 3, which seems rather high taking advanced training outputs in Africa to date into account,[16] while the average number of members per committee with short course training was 9. The average number of members per committee with either "other" formal training or no formal training was 5. Table 6 provides detailed information on training requirements and levels.

[16]Ndebele P et al., *op. cit*. note 5, pp. 24-40.

3.10 | Discussion

3.10.1 | RECs in Africa

Compared to our first study,[17] MARC now reflects information on 167 RECs instead of 91. This growth of 88% in the total number of RECs registered during Phase II of the MARC project represents significant effort to improve the comprehensiveness of the MARC listing. After three years of operating HRWeb, there were however still 19 African countries that had not yet registered any RECs on MARC. These 19 countries share some important characteristics. Firstly, some of the 19 countries are regarded as politically unstable[18] where health research, or ethical health research, might not be a priority. Secondly, most of the missing countries are non-Anglophone, reflecting the challenge of language in Africa. For Lusophone countries, there were no listed RECs at the time of writing this paper, even though we know of at least three RECs in Mozambique that are about to benefit from a newly approved Fogarty/NIH training program (Heitman, personal communication). For Arab-speaking countries, the number of RECs listed, was boosted by Egypt (*n*=23 RECs) and Sudan (*n*=7). Regarding registration of RECs by country, the countries with the highest number of listed RECs, had decentralized REC systems. South Africa, Egypt, and Nigeria all have national legislation that supports the independent operation of institutional RECs.

[17]IJsselmuiden C et al., *op. cit*. note 6, pp. 74-86.

[18]http://en.wikipedia.org/wiki/List_of_countries_by_Failed_States_Index [Accessed 23 Nov 2016].

TABLE 5 REC Membership and staff information

	Detail	Number of RECs that have provided information	% of total on HRWeb (*N*=167)
ADMINISTRATOR POSITION	**RECs with info on Administration**	**89**	**52%**
	Full time	34	20%
	Part time	42	25%
	No administrator	13	8%
	No data on administrator	78	48%
	RECs with info on Membership	**91**	**54%**
MEMBER DETAILS	RECs with Community representatives	68	41%
	Qualified ethicists	59	35%
	Members aged ≤ 30	12	7%
	Members aged 31-40	49	29%
	Members aged 41-50	65	39%
	Members aged 51-60	58	35%
	Members aged >60	40	24%
Gender	RECs with Female members	85	51%
	Data on terms of office	**75**	**45%**
TERM OF OFFICE	2 years	21	13%
	3 years	48	29%
	4 years	4	2%
	5 years	2	1%
	No data on term of office	92	56%
	Data on Renewable term	**136**	**81%**
RENEWABLE TERM	Not renewable	53	32%
	Once	34	20%
	Twice	31	18%
	Unlimited	18	11%
	No data on renewable term	31	20%

TABLE 6 Training requirements for REC members

Detail		Number of RECs that have provided information	% of total on HRWeb (*N*=167)
	RECs with some info on training*	**90**	**54%**
TYPE OF REQUIREMENT	Training requirement	74	44%
	No training requirement	16	10%
	No data on training requirement	79	48%
	Continuous education requirement	80	48%
	No continuous education requirement	7	4%
	No data on continuous education requirement	82	49%
	RECs with information on training level	**149**	**89 %**
TYPE OF TRAINING	Members with formal training: short courses	73	44%
	Members with formal training: Degree courses	41	25%
	Members with formal training: Other	17	10%
	Members with no formal training	18	11%

Regarding the 19 countries not listed in HRWeb, it should be highlighted that some countries with known RECs did not respond to numerous invitations to register. For example, two of the 19 countries had three and one operational RECs respectively, which were non-responsive and yet these four RECs have all acquired *RHInnO Ethics*[19] review software from COHRED, implying that they were all operational. There is also the possibility that research was being conducted in some countries without RECs or without REC review. For example, one of the 19 countries sent delegates to a research ethics workshop organized by COHRED and the West African Health organization (WAHO[20]) in 2012 as part of efforts to establish a REC in that country.

Based on the increase of 88% of RECs registered in Africa in the last two years, we estimate that the total number of active RECs could be double our reported total listing to date, taking into account known RECs in countries' listing and missing RECs in countries with some RECs already listed.

3.10.2 | Infrastructure and training available to RECs

Regarding resources available to RECs, 91%, 84%, and 81% of those RECs that provided information, have access to a computer, dedicated office space and a telephone, respectively. These three resources are essential for the efficient operation of a REC. Significant proportions of RECs also had access to internet (78%) and photocopier (59%). Internet (email) access is essential for communicating REC decisions and requirements in a timely manner while a copier is necessary to ensure that REC documents are copied or scanned and distributed to REC members timeously. A quarter of all RECs that provided information (24%) indicated that they had access to all the important tools, reflecting a growing proportion of RECs with all the resources expected for efficient and high quality reviews. In particular, internet access is key to efficient multicenter review, fast updating, use of external reviewers, rapid submission and turn-around, and more. Furthermore, we expect this number to decrease if all RECs in Africa are mapped – assuming that those that are not yet present on HRWeb have fewer resources and poorer internet access than those that have uploaded information. Therefore, continued support for infrastructure may be relevant to rapid and high quality review, and to harmonization efforts. Past surveys have suggested that RECs in African countries are not adequately resourced.[21]

Training for REC members is essential if the RECs are to provide effective service. Of the 149 RECs, which provide information on training, 49% had received short courses in research ethics, while only 28% of RECs had some members who had been trained in research ethics at degree level, about 11% indicated that they did not have members who had received any relevant training. This illustrates the need for initial and continued REC member training.[22] also showed the need for REC related training opportunities for REC members. The fact that a significant proportion of listed RECs indicated that they had members with formal training (49% had attended short courses and 28% had relevant degrees) provides evidence of the role of various training programs aimed at strengthening ethical review across Africa[23] There is also an ongoing need for continued training in order to ensure that the majority of REC members receive relevant updated training. The online, free of charge, TRREE[24] training program reported over 11,500 participants from 52 African countries by April 2017. Our data also suggest other areas that need strengthening, for example financial resources for RECs.

3.10.3 | Electronic submission of protocols

Regarding submission of proposals to the RECs, the majority of listed RECs required hard copy submissions (*n*=73). A lesser number of RECs accept email submissions only (*n*=41) or both hard copy or email submissions (*n*=42). This indicates the relatively low level of REC technology advancement in Africa. Most RECs in Africa do not have the capabilities for conducting electronic management and review, nor for storing large volumes of files. The MARC project is addressing this challenge through its *RHInnO Ethics* suite, a cloud-based, low bandwidth platform for managing REC information. The RHInnO package[25] allows online submission of proposals as well as electronic management of submitted proposals including referral to reviewers, online reviews, and communication with the researchers, and is now operating in 29 RECs in 8 African countries.

3.10.4 | REC membership

For those RECs that provided information on membership, a large number (*n*=116) (71%) indicated that they separated the roles of chair and Administrator. Seventy-two RECs (46%) had a specific REC Administrator (part-time or full-time). Although there are no previous data on the position and growth of REC Administrators in Africa, we interpret this high proportion as a sign that REC operations are becoming more demanding and as evidence of the growth of REC administrator positions in Africa.[26] This is significant also in terms of directing training and infrastructure capacity building efforts. REC Administrators vary greatly in background training but seem to be a key position for continuity and quality improvement of review but, as a group, have attracted little capacity building or research attention until recently.[27]

Many RECs indicated that they had community representatives (*n*=68) (41%), 'qualified ethicists' *n*=59) (35%) and female members (*n*=85) (51%). Having these categories of members on RECs is important for several reasons including ensuring that the voices of non-scientists and communities are heard in REC meetings and ensuring that women, who make the larger proportion of research participants, are represented in REC deliberations.

[19]http://www.rhinno.net [Accessed 23 Nov 2016].

[20]http://www.wahooas.org/spip.php?page=rubriqueS&id_rubrique=24&lang=en [Accessed 23 Nov 2016].

[21]IJsselmuiden et al., *op. cit*. note 6, pp. 74-86.; Ndebele et al., *op. cit*. note 5, pp. 24-40.; Nyika et al. *op cit*. note 9, pp189-93A.

[22]Nyika et al. *op cit.* note 9.

[23]Ibid.

[24]TRREE http://elearning.trree.org/ [Accessed 23 Nov 2016].

[25]*Op. cit.* note 19.

[26]Kasule M, Wassenaar DR, IJsselmuiden C, Mokgatla B. Silent voices: Current and future roles of African Research Ethics Committee Administrators. *IRB, Ethics and Human Research* 2016;38 (1):13-9.

[27]https://www.healthresearchweb.org/files/AARECFinalReport.pdf. [Accessed 23 Nov 2016].; TRREE http://elearning.trree.org/, note 21.

3.10.5 | Completeness of the REC database

The database providing information for this study still has some significant gaps, with some RECs not providing any information at all. This can possibly be attributed to the fact that the benefits of having REC information published on HRWeb are still not clear to the REC members and administrators or their principals, or to language difficulties, or to lack of connectivity and unreliable electricity supplies. To deal with the latter, HRWeb and its REC information management system are designed as 'very low bandwidth' applications that save information 'second-by-second' to prevent data loss in case of electricity supply interruptions. To deal with language, all facilities are now available in English, French, Portuguese and Spanish, and capabilities are increasing. To make benefits of listing more obvious, HRWeb and *RHInnO Ethics* are being increasingly used for three purposes: i) by those interested in supporting capacities of RECs in Africa; ii) by research organizations seeking partners for research with adequate REC infrastructure, and iii) by those aiming to increase harmonization of ethics review across studies and across borders. Listing on HRWeb makes invisible RECs internationally visible.

While REC coverage is not 100% and while there is missing information, MARC provides unique perspectives on the current status of RECs in Africa. There is no alternative or more comprehensive resource for African RECs. Past surveys, cited above, are incomplete and outdated. In the absence of surveys that cover the whole continent, MARC will continue to be a rich source of information on RECs in Africa. The MARC Initiative will however need strengthening to ensure that it reaches all countries and RECs in Africa to provide up-to-date information.

3.11 | The way forward

The data from MARC (http://www.researchethicsweb.org) provides several novel perspectives on the development of ethics review in Africa. Firstly, the MARC initiative has been successful in listing the largest number of RECs on a single, self-updating open access database to date. In addition, the MARC project has expanded to cover Latin America and the Caribbean.[28] Uptake has been enthusiastic, with PAHO (the Pan American Health Organization[29]) listing over 1000 such RECs to date. This expansion demonstrates the usefulness of MARC as an international platform for RECs.

The voluntary nature of HRWeb listing by RECs implies that those RECs with members willing to enter information are the ones that are listed. This also partly explains why there are so many gaps in the information for certain RECs. Despite these shortcomings, HRWeb remains the most comprehensive and current platform for REC networking, for sponsors wishing to access information on human research oversight requirements across Africa, and Pan-African efforts on harmonization of ethics review.

MARC is currently operating as a standalone initiative by COHRED, and is focused on Africa. There are at least two possible opportunities for expansion. Firstly, given that there are already many more RECs listed outside Africa than in Africa, a renamed and refocused project could increase coverage of other continents and regions interested in the potential that HRWeb, MARC and *RHInnO Ethics* have to offer. Secondly, in the context of Africa, adoption of this platform as a *de facto* pan-African REC registration and interaction platform by one or more Africa-wide political bodies such as World Health Organisation (AFRO/EMRO), UNESCO or African Union, could greatly advance the potential for harmonization and increasing the efficiency and quality of review – making Africa an even more attractive place for research and innovation investment.

[28]Villanueva EC, Abreu D, Cuervo LG, Becerra-Posada F, Reveiz L, IJsselmuiden C. HRWeb Americas: a tool to facilitate better research governance in Latin America and the Caribbean. *Cadernos de Saúde Pública*. 2012;28(10):2003-2008.

[29]www.paho.org

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CONFLICTS OF INTEREST

No conflicts Declared.

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