SHORT REPORT

Saving the Lives of Women, Newborns, and Children: A Formative Study Examining Opportunities to Improve Reproductive, Maternal, Neonatal, and Child Health Outcomes in Nigeria

Ejiro J. Otive-Igbuzor¹ Theresa Kaka Effa² Emily Teitsworth², Rufaro Kangai², Chantal Hildebrand², Diana Lara³, Denise Dunning²*

Women Empowerment and Reproductive Health Centre, Tolse Plaza, 4 lawan Gwadabe Crescent, Apo, Abuja, Nigeria¹; Rise Up at the Public Health Institute, 555 12th St, 10th Floor Oakland, CA 94607, USA²; Philip R. Lee Institute for Health Policy Studies and Bixby Centre for Global Reproductive Health, University of California San Francisco, San Francisco, USA, 3333 California Street, Suite 265, San Francisco, CA, USA³

*For Correspondence: E-mail: ddunning@riseuptogether.org; Phone: +1-510-285-5706

Abstract

Despite economic growth in Nigeria, maternal and infant mortality rates remain among the highest in the world. Civil society organisations (CSOs) play a critical role in ensuring governmental accountability to fulfil commitments that improve health outcomes for women, newborns, and children. This formative study was undertaken to identify: a) policy advocacy priorities b) advocacy challenges, and, c) opportunities for strategic advocacy. Methods consisted of a desk review of key reproductive, maternal, neonatal, child and adolescent health (RMNCAH) policies, surveys with CSOs working on RMNCAH, and key informants from non-governmental organisations (NGOs), and United Nations agencies. Participants identified the need for improved funding for RMNCAH policy implementation, increased civil society input in policy creation, and greater accountability. Increased investment in advocacy capacity building and accountability play an important role in improving health outcomes in Nigeria. (Afr J Reprod Health 2017; 21[3]: 102-108).

Keywords: Maternal health, Reproductive health, Infant mortality, Advocacy, Accountability, Civil Society

Résumé

Malgré la croissance économique au Nigéria, les taux de mortalité maternelle et infantile restent parmi les plus élevés du monde. Les organisations de la société civile (OSC) jouent un rôle essentiel pour assurer la responsabilité du gouvernement de respecter des engagements qui améliorent les résultats pour la santé des femmes, des nouveau-nés et des enfants. Cette étude formative a été entreprise pour identifier: a) les priorités en matière de plaidoyer politique b) les défis de plaidoyer, etc) les possibilités de plaidoyer stratégique. Les méthodes ont consisté en un examen documentaire des principales politiques de santé de la reproduction, maternelle, néonatale, infantile et de l'adolescent (SRMNIA), des enquêtes auprès des OSC qui travaillent sur la SRMNIA et des informateurs clés des organisations non gouvernementales (ONG) et des organismes des Nations Unies. Les participants ont identifié le besoin d'améliorer le financement de la mise en œuvre de la politique de la SRMNIA, l'augmentation de la contribution de la société civile à la création de politiques et une plus grande responsabilisation. L'augmentation des investissements dans le renforcement des capacités de plaidoyer et la responsabilisation jouent un rôle important dans l'amélioration des résultats en matière de santé au Nigeria. (*Afr J Reprod Health 2017; 21[3]:102-108*).

Mots clés: la santé maternelle, la santé de la reproduction, la mortalité infantile, de plaidoyer, de la responsabilisation, de la société civile

Introduction

Although Nigeria is the largest economy in Africa¹, social inequality, gender, and health indicators have not advanced considerably². Nigeria has a maternal mortality rate of 560 deaths per 100,000 live births³,

neonatal mortality is 37 deaths per 1,000 live births⁴, and almost one in six children born in Nigeria dies before the age of five⁵.

Reproductive health indicators, such as access to contraception and safe abortion services, are similarly poor. For example, only 11% of

African Journal of Reproductive Health September 2017; 21(3):102

women 15-49 years reported use of a modern contraceptive in 2013 and this proportion has not increased since 2008⁶. In all regions of the country and among all age groups, use of contraception especially modern contraception—is very low and occurs mostly among unmarried women, likely due to widespread societal disapproval and stigma against women and adolescents who have pregnancies out of marriage^{4,6}. For example, 6% of unmarried adolescents aged 15-19 years used modern contraception compared with 3% of married adolescents⁷. Abortion is also highly stigmatized and legally restricted but occurs frequently and under unsafe conditions⁶. In 2012, the estimated rate of induced abortion was 33 per 1,000 women age 15-49⁸. The estimated treatment rate for abortion complications was 5.6 per 1,000 women of reproductive age⁸.

Improving reproductive, maternal, neonatal, child, and adolescent health (RMNCAH) outcomes requires collaboration between government and civil society organisations (CSOs) to ensure passage and effective implementation of policies and laws that increase access to reproductive health services⁹. Given limited funding for organisations working in RMNCAH service provision and advocacy, it is also necessary to develop a common agenda, shared priorities for action, and collaborative advocacy initiatives to ensure governmental accountability to health commitments. This common agenda is critical to building a movement of CSOs advocating for better access to health services, information, and funding across Nigeria.

To advance Nigeria's RMNCAH agenda and support effective civil society collaboration, this formative study was conducted to a) identify priority areas for policy advocacy at both the state and national levels in Nigeria, b) identify key actors and challenges in the broader Nigerian health advocacy landscape and c) identify opportunities and entry points for strategic advocacy.

Methods

The study consisted of: a) a desk review to identify policies at the state and national level that impact RMNCAH, b) self-administered surveys with CSOs that work on RMNCAH in Nigeria, and c) in-depth interviews with key informants from non-governmental organisations (NGOs), United Nations agencies, and other international organisations. Written consent was obtained from key informants

and CSO participants indicated consent by completing the questionnaire. The study did not fall under the definition of human subjects research because personal data was not collected, rather only opinions about RMNCAH, policies, and advocacy barriers.

Desk review

A desk review was conducted to inform the development of the CSO survey and key informant interview guide. Landscape documents, national reports, policy analysis documents, and Millennium Development Goals progress reports were reviewed. Also, a list of relevant state and national policies enacted from 1995 to 2015 were compiled. Information abstracted from sources included the name of the law, date of enactment, description of the policy, and intended impact on RMNCAH.

Surveys with CSOs

The CSO survey was a self-administered emailed questionnaire. Question topics addressed CSOs' geographic and programmatic focus areas, scale of health advocacy activities, target groups and delivery channels, membership in advocacy networks, operating budgets, and sources of advocacy funding. Open-ended questions were designed to elicit opinions on gaps in RMNCAH advocacy implementation as well as experiences implementing advocacy programs.

CSOs were purposively selected using maximum variation and snowball sampling. To be included in the study, participating CSOs must work in RMNCAH. A previous landscape study was used to generate an initial list, and informants in known networks and government ministries were contacted for names of organisations to include¹⁰. Snowball sampling helped to ensure that additional organisations mentioned by participants during the study would be included.

Seventy-six organisations received the questionnaire. These organisations were from six geopolitical areas of Nigeria and represented heterogeneous backgrounds and experiences such as: faith-based organisations, media groups, youth-led organisations, advocacy groups, CSO networks and NGO coalitions. Fifty-six organisations returned the survey (response rate of 74%). Descriptive analysis was conducted using MS Excel. Open-ended questions were coded and grouped into main themes.

In-depth interviews with key stakeholders

Thirty five key stakeholders (22 women and 13 men) – members of a wide variety of organisations including local NGOs, UN agencies, and other international funders – were invited to participate in an in-depth interview. These stakeholders were purposively selected based on their knowledge of RMNCAH and development issues in Nigeria. Thirty agreed to be interviewed.

An interview guide was used to structure discussions. Topics addressed barriers to RMNCAH policy implementation, policy priority areas for RMNCAH advocacy at state and national levels, and recommendations for specific entry points for RMNCAH advocacy. Interviews were conducted by six researchers with experience in public health research. Interviews were recorded with participant permission and lasted an average of 30 minutes. Recorded interviews were transcribed and coded in Word using colour-coded MS highlights. Transcribed interviews were coded by two researchers by the main topics outlined in the interview guide. Other codes not included in the guide emerged during the reading of the interviews. Inter-coder reliability was established by having team members code two transcripts to determine levels of consistency, and discrepancies were resolved through consensus building. Results were triangulated with findings from the CSO survey.

Results

Desk review

Table 1 describes select national and state level laws identified by the desk review. RMNCAH policies in Nigeria are informed by international instruments and the regional context, with local, state, national and international policies, laws, and agreements generating varying levels of impact. It was found that current laws provide scant support to enable women and girls to effectively access RMNCAH services and information. Additionally, accountability mechanisms are lacking, as relevant legislation stipulates only mild penalties when laws are violated.

CSO survey and key informant interviews Characteristics of civil society organisations

Table 2 shows the characteristics of the CSO survey respondents. Twenty-nine per cent were in the North

Central zone, 23% each in the North West and the South West, and 11% in the South South region. Less than 10% of CSO respondents were from the North East and 5% from the South East. Forty-seven self-identified as NGOs, with nine identifying as umbrella organisations or NGO networks. Thirty-one reported that advocacy is a cross cutting theme with work focused on policy change, legislative advocacy, good governance, and budgetary advocacy.

Key themes drawn from analysis were organized by: key priority policy areas for RMNCAH, policy implementation barriers, and strategies and opportunities for advocacy.

Key policy priority areas for RMNCAH advocacy

Improved funding for RMNCAH policy implementation. Nigeria's RMNCAH programs and the health system struggle in terms of funding. In the absence of adequate funding for RMNCAH service provision, it is challenging to implement programs that effectively meet the needs of the population.

Increased civil society participation in policy making. One CSO respondent noted the "lack of consultative approach to policy frameworks." CSOs have limited capacity to effectively engage within the policy process. Often, CSOs engage with bills and policies only after passage, when it is already late to provide input or influence key outcomes.

Effective oversight of budgets and projects. CSO respondents and key stakeholders asserted that there is a need for increased governmental accountability for the implementation of laws, policies and programs. Some study participants discussed the need for social mobilisation to hold governments accountable, in addition to the identification and prosecution of corrupt officials and institutions to ensure transparency and accountability. According to one CSO survey respondent, "Bribery and corruption is another problem that has contributed greatly to the failure of reproductive, maternal, newborn and child health policies implementation in Nigeria".

Policy implementation barriers to improve RMNCAH outcomes in Nigeria

Structural, cultural, religious, and security factors were identified as barriers to improving RMNCAH

Table 1: Select National and State Level Policies Impacting RMNCAH in Nigeria*

Policies	Year Enacted	Impact on RMNCAH
Federal Constitution of Nigeria	1999	Guarantees social justice - including reduction of maternal mortality
Č		under the Maputo Declaration
		Chapter II establishes a state policy that ensures adequate provision of
		medical health for all
		Chapter IV: guarantees right to life, dignity, freedom from
		discrimination
National Health Bill	2014	Sets standards for rendering health services;
		Establishes a mandatory budget allocation for healthcare
		Provides rights to health services & emergency treatment
National Health Policy	Not available	Defines overall policy & legal framework of health system at Federal,
•		State and Local Government levels.
National Primary Health Care	1992	Establishes agency to support the National Health Policy. Agency
Development Agency Act		creates & updates policies; translates policies into strategies
Criminal Code – Cap. 77 & the	1990	Makes it illegal to supply material knowing it will be used to abort a
Penal Code Cap. 345	(Laws	pregnancy (however, section 291 allows abortion strictly for the
T	of the Federation)	preservation of the mother's life)
		Chapter 21: rape of a boy under 14 punishable by 14 years of
		imprisonment while rape of a girl under 13 is only punishable by 7 years
		imprisonment
		Does not recognize marital rape as a crime; allows wife battery as long
		as "grievous bodily harm is not inflicted"
Marriage Act	Not available	Does not establish minimum age of marriage
Child Rights Act	2003	Establishes 18 years as minimum age of marriage boys & girls
emia rugius rac	2002	(implemented in 24 states mostly in the South)
		Establishes rights to life, survival & development, freedom of
		movement, dignity of the child, rights to parental care, protection &
		maintenance, to leisure, recreation & cultural activities, to compulsory
		and universal primary education and freedom from discrimination
National Policy on Reproductive	2001	Objectives for 2001-2006: reduce maternal mortality and morbidity due
Health & Strategy to Achieve		to pregnancy childbirth by 50%; reduce perinatal and neonatal morbidity
Quality Reproductive & Sexual		and mortality by 30%; reduce unwanted pregnancies in all women of
Health		reproductive age by 50% (targets not met within the stipulated
Tioutur		timeframe)
State level policies		tinonano)
Enugu State of Nigeria	2001	Prohibition of infringement of a widow's and widower's fundamental
Enaga State of Pageria	2001	rights law
Laws Prohibiting Female Genital	Various vears	Prohibits female genital mutilation
Mutilation (FGM)	various years	(Delta, Abia, Bayelsa, Ogun, Osun and Rivers States)
	2000	Prohibits trafficking and sexual exploitation of women and girls
(Amendment) Law, Cap. 48	2000	110mons during and sexual exploitation of women and girls
Zamfara State Sharia Penal Code,	2000	Protects women & young girls from all forms of cruelty, sexual, labour,
Vol. 1, No. 4, section 207 to 239	2000	& economic exploitation including trafficking
Cross-River State Girl-Child	2000	Protects girls from female genital mutilation & child marriage
Marriage & Female Circumcision	2000	1 rocces garis from remaic gentar mutitation & clind marriage
Prohibition Law		
I TOHIOIUOH Law		

*Table summarizes results of desk review of RMNCH related policy documents from the following sources:

- Policy Landscape: RMNCH in Nigeria by Droppert H, 2014,
- Broken Promises: Brief policy Paper by the Women Advocates Research and Documentation Centre (WARDC) and the Centre for Reproductive Rights (CRR), 2013,
- Gender Analysis of Health Policy, Plans, Tools and Strategies related to Maternal Mortality in Nigeria, UNICEF, 2014.
- Review of existing RH Policies and Legislations in Nigeria by Ladan M, 2006.
- Child Rights Situation Analysis: Nigeria by Otive-Igbuzor EJ, Igbuzor O and Nwankwo E, 2013.

outcomes. In addition to these numerous important barriers, the following specific obstacles detract from effective implementation of laws and policies designed to advance RMNCAH outcomes: Low prioritization of RMNCAH compared with other key issues for policymakers. Survey respondents noted that RMNCAH priorities compete for policymakers' attention with numerous pressing

Table 2: Characteristics of Civil Society Organisations (n=56)

	Number (%)		
Type of organisation			
NGOs	47 (84)		
Network of NGOs	9 (16)		
Location			
North Central	16 (29)		
South West	13(23)		
North West	13 (23)		
South South	6 (11)		
North East	5 (9)		
South East	3 (5)		
Use of advocacy in their programs			
Yes	31 (55)		
No	25 (45)		
Type of advocacy*			
Policy	11 (35)		
Legislative	8 (26)		
Good governance	7 (23)		
Budget	5 (16)		

^{*}Among organisations that used advocacy (n=31)

economic, social, and other health issues. Lack of knowledge by decision makers about the health laws that have already been approved is a barrier to both effective implementation and to approval of new laws. As noted by one key informant, "[There is] limited dissemination and distribution of the policies; therefore, persons that need to use them are not aware of their existence".

Limited knowledge about advocacy. As noted, 31 of the CSOs surveyed identified advocacy as a focus area. However, of the 56 organisations profiled, only 25 reported using part of their operating funds on advocacy activities. The ability to set aside funds for advocacy activities is an important proxy measure reflecting the extent to which an organisation engages in advocacy initiatives.

Even among those organisations that self-identified as working in RMNCAH advocacy, there was some confusion about key advocacy terms and concepts. Few participants demonstrated a clear understanding of the accurate definition of advocacy. Several participants narrowly defined advocacy as holding protests or visiting local officials to gain approval for direct service project implementation, rather than framing advocacy more comprehensively.

Limited coordination among civil society advocates. Some participants observed that limited funding for RMNCAH advocacy necessitates coordination of advocacy activities among organisations but that this collaboration is limited. There is also a perceived lack of civil society coordination and collaboration with the private sector to ensure effective governmental accountability to improve RMNCAH service provision and outcomes.

"The supply and management is too focused on donor/government led programmes and not the more efficient private sector. This means that there is a strong disconnect between demand and supply, consumers left dependent on inconsistent and inefficient systems that are not in any way accountable to consumers. Policies should support private sector provision of commodities and services for the vast majority of the people while subsidizing services within its means for segments that we know will be likely to uptake services and eventually sustain them on their own. Government cannot ever provide adequate services to all of its people – not in the west and not in Nigeria." - Key Informant

Poor monitoring and evaluation of policies. Study participants noted that there are few concerted efforts to track policy implementation or evaluation of policy impacts. They agreed that timelines for many policies have already expired, but point to a few promising examples of effective policy change and implementation. For example, the National HIV/AIDS policy and the National Strategic Framework for Action are two policies with sensible implementation practices and monitoring throughout their lifecycles, and may serve as promising practices for future policymaking and implementation.

Strategies and opportunities for advocacy

Accountability in budget performance. Respondents noted that strengthening government budgetary accountability was an opportunity for organisations to improve RMNCAH outcomes. Others highlighted that some CSOs are already focused on governmental accountability to ensure that spending is allocated and invested ethically.

Media advocacy. Several participants highlighted media advocacy as an important method of building public and governmental commitment to RMNCAH. Engaging with the media to improve accurate reportage and coverage of RMNCAH

problems in Nigeria is critical to framing the agenda and holding policymakers accountable to addressing these critical issues.

Social accountability for health infrastructure and personnel. Participants mentioned that NGO efforts should have a strong emphasis on advocating for good quality health service infrastructure and more skilled health professionals, especially in rural and isolated areas.

"RMNCAH policies are not well implemented because they formulate policies without putting a supporting system in place. There is no enabling environment. Transportation to rural areas is still very poor, hospitals are not functioning well, and even light issue has been a challenge." – Key Informant

Another participant commented on the need to engage communities and educate women and girls about their rights concerning RMNCAH so they can advocate for better quality of health services.

"The women themselves should be taught their rights. When a woman knows the care to be received in the hospital, if she's not been given adequate care, she can challenge the health worker and they will be obliged to give it to her, and health workers will also be more prepared so as to be up to the task." – Key Informant

Discussion

This study highlights the factors RMNCAH outcomes in Nigeria and the advocacy opportunities and challenges facing the civil society sector. The authors found that Nigeria has a robust civil society sector that is dedicated to improving RMNCAH outcomes, in addition to a policy framework that includes numerous national and state-level policies relating to RMNCAH. Despite civil society these positive findings, many organisations have limited knowledge advocacy and struggle to achieve their advocacy goals. Civil society advocacy capacity constraints pose a severe limitation to ongoing efforts to ensure governmental commitment and accountability to **RMNCAH** outcomes. improving Increased investments in civil society capacity building are needed to improve access to health care services and better meet the needs of women and girls throughout Nigeria.

An evaluation of Rise Up's Champions for Change initiative found that participating civil society leaders and organizations credited their advocacy successes to the initiative's rigorous capacity building approach that integrated advocacy, development, organisational leadership strengthening, resource mobilization, networking, and partnership development¹¹. Momah colleagues⁹ found significant increases knowledge on reproductive health advocacy and policy issues after an 8 month training program. These promising findings indicate the value of investing in advocacy capacity building for civil society leaders to strengthen their ability to ensure improving governmental accountability to RMNCAH outcomes.

This study found that an important barrier to improving RMNCAH outcomes was the limited coordination among advocates due to diverse agendas, limited funding, and competing priorities. Nine networks of NGOs that are working collaboratively were identified and may have the potential to achieve larger scale impacts and influence policy. Additional investment capacity building for these networks has the potential contribute to their effectiveness and impact. Further, documenting best practices in advocacy - including case studies highlighting effective advocacy campaigns, policy briefs, and other advocacy tools - can serve as important resources to support advocacy initiatives to achieve maximum impact.

In addition to improved coordination among civil society organizations, some of the advocacy strategies identified – such as accountability concerning budgets, health infrastructure, and personnel – also require coordination with the local and national health authorities. Another critical strategy is to strengthen the capacity of women and girls to speak out for their right to health services in order to improve the quality of health infrastructure and services¹². Strengthening the capacity of civil society leaders and communities to advocate for improved RMNCAH services is critical to increasing political will and accountability among local, state, and national policymakers.

Limitations

Limitations include incomplete CSO survey data, as not all respondents answered all the questions. Time constraints impacted the number of key informant interviews that could be conducted. Despite these limitations, this study brings together the unique perspectives of civil society actors, influencers, and stakeholders about the realities for RMNCAH advocacy in Nigeria. More research, in the form of a situational analysis, is needed to delve further into evolving RMNCAH advocacy priorities.

Conclusions

Nigeria's legal and health policy framework is stronger than that of many countries in the region, but implementation and accountability are limited. Therefore, increasing civil society advocacy capacity is critical to improving RMNCAH outcomes in Nigeria. Civil society organisations have a key role to play in ensuring governmental accountability to fulfill existing commitments and to advocating for legislation that advances RMNCAH outcomes. Improving reproductive, maternal, infant, child, and adolescents outcomes in Nigeria depends on increased civil society advocacy capacity and collaboration to influence budget processes, passage of new legislation, and ensure effective implementation of existing laws and policies.

Acknowledgement

Funding for this research was provided by the Bill and Melinda Gates Foundation. Grant name: Champions for Change: Advocating for Healthy Families in Nigeria. Grant Number: OPP1084575

Competing Interests

The authors declare that they have no conflict of interests.

Contribution of Authors

EJO contributed to data collection, interpretation of data, and manuscript writing. DD, ET, RK, CH, TKE contributed to the interpretation of data, manuscript writing, and revising it critically. DL contributed to the interpretation of data and manuscript writing.

References

World Bank. Nigeria economic report [Internet].
 Washington D.C.: World Bank; 2014 Jul p. 23 p.
 Report No.: 2. Available from:

- https://openknowledge.worldbank.org/handle/10986/19980
- Office of the Senior Special Assistant to the President on Millennium Development Goals (MDGs). Millennium Development Goals endpoint report 2015 Nigeria [Internet]. Abuja, Nigeria: OSSAP-MDGs; 2015 Sep 145 p. Available from: http://www.ng.undp.org/content/dam/nigeria/docs/M DGs/Nigeria_MDG_Report%202015%20Full%20Re port.pdf
- 3. Countdown to 2015 and beyond: fulfilling the health agenda for women and children. The 2014 report: Nigeria profile | MamaYe [Internet]. Available from: http://www.mamaye.org/en/evidence/countdown-2015-and-beyond-fulfilling-health-agenda-women-and-children-2014-report-nigeria
- National Population Commission (NPC) [Nigeria], ICF International. Nigeria Demographic and Health Survey 2013 [Internet]. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF International; 2014 565 p. Available from: https://dhsprogram.com/pubs/pdf/FR293/FR293.pdf
- 5. UNICEF. The state of the world's children 2009: maternal and newborn health [Internet]. New York, NY: UNICEF; 2008 Dec [cited 2017 Jul 19] 158 p. Available from: https://www.unicef.org/sowc09/docs/SOWC09-FullReport-EN.pdf
- Abortion in Nigeria [Internet]. Guttmacher Institute. 2015.
 Available from: https://www.guttmacher.org/fact-sheet/abortion-nigeria
- 7. Yarger J, Decker M, Brindis C, Cortez R and Quinlan-Davidson M. Socioeconomic differences in adolescent sexual and reproductive health: family planning [Internet]. Washington, DC: World Bank Group; 2015. (Health, nutrition, and population global practice knowledge brief). Available from: http://documents.worldbank.org/curated/en/86467146 8309363733/Socioeconomic-differences-in-adolescent-sexual-and-reproductive-health-family-planning
- Bankole A, Adewole IF, Hussain R, Awolude O, Singh S and Akinyemi JO. The Incidence of Abortion in Nigeria. Int Perspect Sex Reprod Health. 2015 Dec;41(4):170–81.
- Momoh GT, Oluwasanu MM, Oduola OL, Delano GE and Ladipo OA. Outcome of a reproductive health advocacy mentoring intervention for staff of selected non- governmental organisations in Nigeria. BMC Health Serv Res. 2015 Aug 11;15:314.
- Walker J. Landscaping and programming study of CSOs and CSO capacity building providers in Nigeria. Nassarawa, Nigeria: Development Research and Projects Centre (dRPC); 2014 147 p. Unpublished report.
- 11. Levine C and Akpan T. Champions for Change Nigeria: final evaluation part B. 2017. Unpublished report.
- 12. Doctor HV, Findley SE, Ager A, Cometto G, Afenyadu GY, Adamu F and Green C. Using community-based research to shape the design and delivery of maternal health services in Northern Nigeria. Reprod Health Matters. 2012 Jun 1;20(39):104–12..