Ministry of Health

RAPID EVIDENCE BRIEF

Identified best practices in health service management in Kenya as presented at the 11th KEMRI Annual Scientific Conference (KASH)

August 2021

Key Messages

1. The recipe for innovation and implementation of best practices at a health facility involves the following:
   a. Identification of a problem
   b. In-depth understanding of the problem from stakeholders including clients/patients and service providers
   c. Willing staff and team spirit towards defining strategies to solve the problem
   d. Process ownership by the entire service delivery team
   e. Continuous monitoring of how well the local solution is delivering the intended results
2. The community is a key stakeholder in community-based initiatives in public health. The combination of community education and community ownership in a process leads to improvement in public health initiatives.

Introduction

Best practices in public health are interventions that have shown to produce desirable outcomes in improving health in real life settings and are suitable for adaptation by other communities.

Best practices should meet most if not all of the following attributes(Ng,2015): Relevance, community participation, stakeholder collaboration, ethical soundness, replicability, effectiveness, efficiency and sustainability.

This evidence brief compiles best practices identified from the abstracts presented in the recently held 11th KEMRI Annual Scientific Conference (KASH). The best practices are presented as case studies that illustrate the problem that was being solved and the innovative way the health facility solved the issue as part of quality improvement in patient care.

CASE STUDY 1

Caesarean section service improvement – Case of Kitui County Referral Hospital

Problem

Long time delays in decision to delivery time in performing emergency caesarean sections. Contributory factors included: delay in review of patients resulting in delay in decision-making, delay in theater preparation, and receiving of the newborn.

Intervention

1. Problem was identified and acknowledged.
2. Key stakeholders interviewed to identify factors contributing to delays in performing emergency c-sections.
3. Local solutions agreed on: First on-call medical officer to spend the night in maternity, health facility management tasked with the duty of ensuring that the rooms for first on-call officers were well maintained, assign at least one nurse - midwife to remain in theatre at critical times and,

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adjust the staff roster to have enough nurse-midwives per shift in theatre.

Description of best practice

- Identification and acknowledgement of the problem.
- Interview of the relevant stakeholders.
- Determination of the interventions – teamwork, process ownership, local solutions identified.

Literature scope

Decision delivery interval (DDI) refers to the time line between a decision to conduct an emergency C-section and actual delivery of the baby. A prolonged DDI could result to maternal morbidity or neonatal morbidity and mortality.

The American College of Obstetrics and Gynecology and the Royal College of Obstetrics and Gynaecology recommend a DDI of 30 minutes (Temesgen, 2020). Factors that have been found to contribute to a delay in the decision – delivery interval are:

- Lack of determination as regards the degree of urgency for the emergency caesarean section (Chauleur, 2009).
- Sub-optimal communication between various members of the healthcare team (Sayegh,2004).

Interventions that have been used to improve the interval between decision – delivery time are:

- Promotion of teamwork and effective communication between the various members of the health care team.
- Use of traffic colour code system as a communication tool for level of urgency of the emergency C-sections (Dupuis,2008).

Study ID	Objectives	Key findings	Contextualisation
Chauleur, C., Collet, F., Furtos, C., Nourrissat, A., Seffert, P., & Chauvin, F. (2009). Identification of factors influencing the decision-to-delivery interval in emergency caesarean sections. Gynecologic and obstetric investigation, 68(4), 248–254. https://doi.org/10.1159/000239783	Factors influencing the decision-to-delivery interval of emergency CS.	Main factor to delay is lack of determination of the level of urgency - urgent and super-urgent.	Improve the identification of the degree of urgency. Improve the communication between the various members of the healthcare team.
Sayegh, I., Dupuis, O., Clement, H. J., & Rudigoz, R. C. (2004). Evaluating the decision-to-delivery interval in emergency caesarean sections. European journal of obstetrics, gynecology, and reproductive biology, 116(1), 28–33. https://doi.org/10.1016/j.ejogrb.2004.01.032	Assess the interval between decision to carry out an emergency CS to delivery.	Decision-delivery time interval was mainly influenced by time taken to wheel the patient to theatre.	Improving communication within the perinatal team could decrease the decision-to-operating theatre interval.
Dupuis, O., Sayegh, I., Decullier, E., Dupont, C., Clément, H. J., Berland, M., & Rudigoz, R. C. (2008). Red, orange and green Caesarean sections: a new communication tool for on-call obstetricians. European journal of obstetrics, gynecology, and reproductive biology, 140(2), 206–211. https://doi.org/10.1016/j.ejogrb.2008.04.003	Evaluation of the use of the traffic color system as novel communication tool for first on call.	Decision to delivery interval was significantly reduced.	Use of the three-colour code could significantly shorten the decision-to-delivery interval in emergency CS

Policy Implication

There currently is no national operational standard guidance on classification of the level of urgency of C-sections. Consideration to develop this is recommended.

CASE STUDY 2

A novel approach towards eradication of open defecation in Kibwezi East sub-County, Makueni County

Problem

Increase in diarrhoeal diseases in Nthongoni sub-location of Kibwezi East sub-County, Makueni County.

Intervention

1. Community triggered as to how fecal-oral infection occurs when they do not use latrines.
2. Community involvement in identification of open defecation sites.
3. Community sensitised on hygiene practices.
4. Construction of pit latrines.

Description of best practice

- Community education that is done concurrently with construction of latrines.
- Optimal community participation and ownership that resulted in the community driving implementation of key activities such as construction of pit latrines.

Literature scope

Open defecation is defined as defecation that happens out in the fields, bushes or water bodies. It causes water and food contamination resulting in diarrhoeal diseases when these are consumed. Elimination of open defecation has been demonstrated to result in reduction of diarrhoeal cases (Njuguna,2016). Interventions that have been used to eliminate open defecation are:

- Combination of community and education and construction of latrines (Igaki, 2021).
- Commitment of the communities.

Study ID	Objectives	Key findings	Contextualisation
Harter, M., Inauen, J., & Mosler, H. J. (2020). How does Community-Led Total Sanitation (CLTS) promote latrine construction, and can it be improved? A cluster-randomised controlled trial in Ghana. Social science & medicine (1982), 245, 112705. https://doi.org/10.1016/j.socscimed.2019.112705	Investigate the psychosocial determinants of CLTS.	Key determinants for achieving CLTS were: others' behaviour and approval self-efficacy action planning commitment	This study corroborated that CLTS is effective in improving latrine coverage and should be applied as a key strategy.
Igaki, S., Duc, N., Nam, N. H., Nga, T., Bhandari, P., Elhamamsy, A., Lotify, C. I., Hewalla, M. E., Tawfik, G. M., Mathenge, P. G., Hashizume, M., & Huy, N. T. (2021). Effectiveness of community and school-based sanitation interventions in improving latrine coverage: a systematic review and meta-analysis of randomised controlled interventions. Environmental health and preventive medicine, 26(1), 26. https://doi.org/10.1186/s12199-021-00934-4	Systematically summarise existing research on the effectiveness of community- and school-based randomised controlled sanitation intervention in improving (1) free open defecation (safe feces disposal), (2) latrine usage, (3) latrine coverage or access, and (4) improved latrine coverage or access.	A combination of education and latrine construction was more effective compared to educational intervention alone.	Plans for improving the sanitation and reduction of diarrhoeal diseases should incorporate combination strategies of education and latrine construction.
Njuguna J. (2016). Effect of eliminating open defecation on diarrhoeal morbidity: an ecological study of Nyando and Nambale sub-counties, Kenya. BMC public health, 15, 712. https://doi.org/10.1186/s12889-016-3421-2	Impact of eradicating open defecation on diarrhoea prevalence among children.	Prevalence for diarrhoea cases in Nyando declined from 19.1 to 15.2 % across the three years.	Elimination of open defecation may reduce the number of diarrhoea cases.

CASE STUDY 3 Stigma among elimination of mother-to-child transmission (eMTCT) clients in Taveta sub-County Hospital - A descriptive study

Problem

Integration of MCH/FP services at Taita Taveta Sub-County Hospital led to HIV-infected mothers feeling uncomfortable attending the clinic and this resulted in appointment defaulting, non-adherence to antiretroviral treatment and feelings of stigma. This was partly contributed to their identification via the yellow card that is issued to all People Living with HIV enrolled in care.

Intervention

1. Staff devised strategies towards client centred services. This included having a separate clinic MCH/FP clinic day for management of pregnant and lactating mothers under the eMTCT program and amongst this group going further and having pregnant mothers and lactating mothers managed on alternate basis.
2. Facilitating support groups for the eMTCT clients supported by volunteer mentor mothers.
3. This work was done by a team of MCH nurses who ensured that they attended to all the clients; Comprehensive Care Clinic (CCC) staff members who offered the necessary support to nurses and the clients; the hospital administration which ensured a conducive working environment and supply of the commodities needed; and the mentor mothers who were always available to support the eMTCT clients.

The outcome was less missed clinic appointments, improved adherence to antiretroviral therapy and overall improved client viral suppression rate from 76% – 91%.

Description of best practice

- Review of model of care by staff at the health facility as part of being responsive to the clients.
- Implementation of client centred services for the eMTCT clients.
- Measurement of outcomes of the updated model of care.

Literature scope

Kenya is one of the countries in sub-Saharan Africa that is working towards being validated as having achieved elimination of mother to child transmission of HIV. The impact indicator criteria to attain validation includes the following(Goga, 2019):

- MTCT rate of < 5% in a breastfeeding population, and
- New infection case rate of <50 new paediatric infections per 100,000 live births.
- These two criteria should be achieved and sustained for one year at the lowest sub-national level.

Study ID	Objectives	Key findings	Contextualisation
Goga, A. E., Dinh, T. H., Essajee, S., Chirinda, W., Larsen, A., Mogashoa, M., Jackson, D., Cheyip, M., Ngandu, N., Modi, S., Bhardwaj, S., Chirwa, E., Pillay, Y., & Mahy, M. (2019). What will it take for the Global Plan priority countries in sub-Saharan Africa to eliminate mother-to-child transmission of HIV?. BMC infectious diseases, 19(Suppl 1), 783. https://doi.org/10.1186/s12879-019-4393-5	Systematic review conducted to synthesise the characteristics of the first four countries that met the eMTCT validation criteria and compare these against the characteristics of the 21 sub-Saharan African (SSA) priority countries that are yet to be validated	Offering universal ART is just one important step towards eMTCT validation. There are other factors that are potentially modifiable that should be carried out concurrently, and these include: health system strengthening to improve service delivery, client tracing, programme monitoring, leadership and governance, and social, educational, and structural interventions	Kenya is one of the priority countries in sub-Saharan Africa that is working towards eMTCT validation. Evaluation of potentially modifiable factors that could hamper the progress towards validation should be conducted.

Liotta, G., Marazzi, M. C., Mothibi, K. E., Zimba, I., Amangoua, E. E., Bonje, E. K., Bossiky, B. N., Robinson, P. A., Scarcella, P., Musokotwane, K., Palombi, L., Germano, P., Narciso, P., de Luca, A., Alumando, E., Mamary, S. H., Magid, N. A., Guidotti, G., Mancinelli, S., Orlando, S., ... Nielsen-Saines, K. (2015). Elimination of Mother-To-Child Transmission of HIV Infection: The Drug Resource Enhancement against AIDS and Malnutrition Model. International journal of environmental research and public health, 12(10), 13224–13239. https://doi.org/10.3390/ijerph121013224	To report major challenges faced in the implementation of our eMTCT program over time and describe potential solutions to these multiple issues.	The challenge for programs targeting eMTCT in developing countries is retention. Peer-to-peer education, social support and laboratory monitoring can reduce refusals to less than 5% and attain retention rates approaching 90%.	This study corroborates the findings that optimal implementation of eMTCT programmes require comprehensive holistic strategies that ensure optimal retention on antiretroviral therapy.
Turan, J. M., & Nyblade, L. (2013). HIV-related stigma as a barrier to achievement of global PMTCT and maternal health goals: a review of the evidence. AIDS and behavior, 17(7), 2528–2539. https://doi.org/10.1007/s10461-013-0446-8	Reviewed the literature from low-income settings to examine how HIV-related stigma affects utilisation of the series of steps that women must complete for successful Prevention of Mother-to-Child Transmission (PMTCT)	Stigma negatively impacts service uptake and adherence at each step of this "PMTCT cascade".	Alongside making clinical services more available, effective, and accessible for pregnant women, there is also a need to integrate stigma-reduction components into PMTCT, maternal, neonatal, and child health services.

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Sickle cell disease - the patient's perspective

Problem

Sickle cell disease (SCD) is an inherited red blood cell disorder that results in the formation of abnormal haemoglobin. There are over 300,000 children born with SCD every year, with most births occurring in sub-Saharan Africa. There is need to understand from a sickle cell disease patient's perspective on various issues that arise as they go about living with and managing the disease. This will enable identification of strategies to improve the quality of life of sickle cell disease patients.

Intervention

- Focus group discussions were held at Kilifi County Hospital. Emerging themes were consolidated into four stories that were then presented as a 32-page comic book.
- Targeted for children aged 7-14 years attending the sickle cell clinic to aid their understanding of the disease at an early age.
- The book highlights facts about sickle cell disease and the challenges the patients and their families face. From a broad sense, it is envisioned that the book will educate the community about the disease and help reduce the stigmatisation of the affected families. It also gives the patients a source of hope and inspiration.

Description of best practice

- Innovative way of presenting feedback to patients, their caregivers and the community regarding a chronic disease.

Literature scope

Study ID	Objectives	Key findings	Contextualisation
Wesley, K. M., Zhao, M., Carroll, Y., & Porter, J. S. (2016). Caregiver Perspectives of Stigma Associated With Sickle Cell Disease in Adolescents. Journal of pediatric nursing, 31(1), 55–63. https://doi.org/10.1016/j.pedn.2015.09.011	Explored the perception of stigma as reported by caregivers of adolescents with SCD.	Caregivers reported a general lack of knowledge about SCD across settings. Highlighted areas for intervention, with a focus on increasing communication and education toward medical providers, schools, and communities.	Interventions can utilise technology, social media, and advertisement campaigns. Additionally, support groups for patients with SCD may help decrease stigma and validate patients' experiences.

Conclusion

The four case studies demonstrate that it is possible for health facilities to determine local solutions that impact on how service delivery is conducted resulting in improved outcomes. These case studies have the potential for scalability in that the issues to which they provide solutions to are public health issues faced in other parts of the country.

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