Review Article

Alma-Ata Declaration: Landmark Achievement of Primary Eye Care Promotion in Nigeria

ABSTRACT

Background: Alma Ata declaration form the bed rock that link primary health care (PHC) and health promotion to enable individuals and communities to increase control over the determinants of health. The declaration is meant to address the main health problems in the community by providing promotive, preventive, curative and rehabilitative services including visual impairment.

Objective: To evaluate the landmark achievement of eye health promotion for prevention of visual impairment in Nigeria

Method: A non-systematic review of published literatures was adopted to develop this narrative review. Literatures searches were done through PubMed, google scholar and biomed central. Search terms included primary eye care (PEC), health promotion and Nigeria. 40 articles were reviewed.

Results: Landmark achievement includes elimination of blinding trachoma and onchocerciasis as a public health problem following the treatment of 120 million people. There was decrease in prevalence of blindness from 77.30% in 2005 to 54.70% in 2016 following implementation of VISION 2020-Right to Sight strategy in Sokoto State. However, non-integration of eye health promotional policy into PHC have left the Nigerian population in the miry clay of sustained prevalence of avoidable visual impairment.

Conclusion: Alma Ata Declaration called on all governments to formulate national policies, strategies and plans of action to launch and sustain primary healthcare, integration of PEC and eye health promotional policies into PHC system to reduce the public health burden of avoidable visual impairment.

Keywords: Alma-Ata, health promotion, primary health care, health education, advocacy

1. INTRODUCTION

1.1 Overview of Epidemiology and Primary Healthcare of Visual Impairment

The landmark event for primary health care was the International Conference on Primary Health Care that took place at Alma-Ata from September 6 to 12, 1978 [1]. The primary health care (PHC) system is a grass-root approach meant to address the main health problems in the community [2]. The WHO considered integration as a key element of primary health care for appropriate management of eye conditions at the primary care level with cascading levels of referral for more complex conditions. WHO estimated in 2010 that 285 million people were visually impaired, of which 39 million were blind [3]. The burden of visual impairment has increased exponentially over the years [4]. It is known that 80% of all causes of visual impairment are preventable or curable and the burden in low-mid income regions is estimated to be four times higher than in high-income regions [4, 5].

Recent review report has acknowledged reduction of preventable visual impairment constitutes an important PHC agenda, while knowledge of the problem is important for planning, provision, and evaluation of educational and health service needs. Interestingly, there is limited data regarding this health issue on Delta State Nigeria [6].

In Nigeria, epidemiological studies in Nigeria have indicated that refractive errors, conjunctivitis, corneal scarring and injuries were some of the most common eye conditions affecting children [7]. Cataract is the most common cause of severe impairment and blindness and account for 45.3% and 43.0% respectively. The Nigeria National Blindness and Visual Impairment Survey reports that South West zone has the lowest prevalence of blindness (2.8%), whereas the North East has the highest prevalence of blindness (6.1%). The reason given for this higher prevalence of blindness in the North East is the increase practice of couching on individual [8].

PHC forms an integral part of the country's health system and a central point for social and economic development of every community. It is the first level of health service contact for individuals, families and communities and the national health system at large [9]. PHC was designed as the new centre of the public health system which required an intersectorial approach where several public and private institutions such as health education, adequate housing, safe water, and basic sanitation work together on health issues. The 32nd World Health Assembly that took place in Geneva in 1979 endorsed the conference's declaration. The assembly approved a resolution stating that primary health care was "the key to attaining an acceptable level of health for all [10]. Primary eye care (PEC) is one of the 11 components of PHC, although all the other components impact directly or indirectly

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on eye health [11]. Globally, there has been a decline in the number of people with visual impairment, especially from infectious causes and vitamin A deficiency [3]. This is can be attributed, at least in part, to the strengthening of PHC, integration of PEC into PHC and international partnerships such as VISION 2020, Neglected Tropical Diseases Control networks and the Millennium Development Goals.
Nigeria has a high prevalence of avoidable causes of blindness [12], such as cataract, glaucoma, uncorrected aphakia and trachoma. It was documented that couching (a traditional method of treating cataract by dislocating the lens into the vitreous) accounts for almost half of all procedures for cataract in Nigeria despite the fact that this practice ultimately leads to blindness [13]. This practice may have proliferated due to weak PHC services and limited access to cataract surgical services at the grass root level of health care [14]. For instance, it has been long known that cataract could be caused by trachoma infection, hence a mode of prevention is by clean water and good environmental sanitation. However, there is apparent knowledge and practice vis-à-vis capacity versus opportunity gap. For instance, specialist PEC providers are found only in 24% Delta State general hospitals and absolutely none in at the PHC tier [15]. Thus, there is lack of opportunity to effectively integrate PEC into PHC. Indeed, it is known that the PHC system in Nigeria facing with challenges which include, but are not limited to, inadequate infrastructure, shortage of health workers, absenteeism and a dearth of basic equipment [16]. What is been brought to the fore is need to evaluate milestone achievement in order to determine possible areas of health promotion.

1.2 Overview of Health Promotion for Primary Eye Care in 3-Tier Healthcare System

Health promotion as a public health concept first came into existence in the 20th century following a long period of time when public health was viewed mostly as a field of “sanitary legislations and reforms” Following the first International conference on health promotion by the World Health Organisation in Ottawa in 1986 which set out major three areas of action: health education, reorientation (community mobilisation), and advocacy [17]. Others series of conferences were also conducted and the final one held in Thailand in 2005, ended with the resolve to reduce health care inequality by globalising health care [18,19]. Health promotion is emphasized further as the process of enabling individuals and communities to increase control over the determinants of health and thereby improving their health [20]. Health promotion offers a framework for legislative, professional and community resources to reduce eye injuries [21]. One example of effective health promotion through legislation is the introduction of seat-belt legislation in the UK in 1983, which led to a 73% dramatic decrease in perforating eye injuries within a short period of time [21,22]. Major areas of health promotion include education, community mobilization and advocacy.

Health education: It is directed at behaviour change to increase adoption of prevention behaviours and uptake of services [17]. While health education is an activity aimed at informing people about the prevention of disease and motivating them to change their behaviour, Health promotion is a broader concept, which emphasises the responsibility of society, both at governmental and community levels, in the determination of health/eye health [21]. Health education is designed to improve health literacy through communication to improve knowledge and develop life skills. Health education programs and activities are used interchangeably with social marketing, mass communications, behaviour modification, in-service training, patient education and some forms of health counselling [20].
In Nigeria, it is well appreciated that health education is one of the main functions of PHC [23]. However, limited literacy levels among the people is acknolwedged part of basis of vision health disparities in the country [8]. Therefore, there is still need of health promotion for PEC.

Community mobilization: It is the process of arousing the interest of the people and encouraging them to participate actively in finding solutions to their problems [24]. It is the gateway to providing effective healthcare services to individuals, families and groups within the communities concerned. Community mobilization engenders community participation and community ownership, and ultimately guarantees sustainability of health programmes [25].
In Nigeria, the challenge of poor mobilization has been recognized by the team involved in VISION 2020 Programme. This goes to show there is need to investigate possible milestone achievement to determine possible areas for health promotion advancement [26].

Advocacy: This means providing active verbal support for primary healthcare by making information available to those who are in a position to act on them. It is important to note that for ocular health promotion and improved eye-care delivery services to be incorporated into the PHC system, there is a need for advocacy, which may enlist the support, endorsement and participation of a wider circle of players, including the minister of health, district governments and PHC workers to provide and improve the delivery of eye-care services [27]. VISION 2020 global initiative that is typically based on advocacy; and ongoing in Nigeria. Thus, it would be beneficial to assess potential remarkable achievements that may have occurred in the last decade especially given the challenge of poor mobilization [26].

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1.3 Objective of review

Given the epidemiology and primary health concerns; as well as what is known regarding health promotion of PEC, what is unknown or yet to be articulated is the landmark achievements in primary healthcare of vision impairment. Adjunct to this is lack of evidence-based literature review of what needs to be done in this area, especially in Delta State Nigeria. Therefore, the objective of this piece of work is to review available literatures on PEC health promotion and identify what has been achieved so far.

2. METHOD

This followed a non-systematic review approach. The search and evaluation of published literatures globally, in sub Saharan Africa and in Nigeria was done through search engines including PubMed, google scholar and biomed central. The published literatures were searched using the key terms as indicated (Table 1). A total of 40 articles were reviewed. The references were also screened for relevant articles.

Table 1: Sequences of literature search

Search engine	**Key words and number of articles**		
PubMed	Primary eye care = 5,033	Primary eye care//promotion = 205	Primary eye care//health promotion//Nigeria = 9 >> Free full text = 8
Biomed central.com	Eye care achievements in Nigeria = 69	Eye care promotion achievements in Nigeria = 41	
PubMed	eye health promotion = 880	eye health promotion/Nigeria = 13; Free full text = 10	
Google scholar	eye health promotion = 868,000	eye health promotion/Nigeria = 10	

3. RESULTS

3.1. Primary Eye Care in Nigeria after 1978 Alma Ata Conference

Firstly, the launch of National health policy of Nigeria which describes the goals, structure, strategies and policy direction of the health care delivery system in Nigeria and the commencement of PHC programmes in the Local Government Areas (LGAs) set pace that systematically decentralized the delivery of basic health services through local government administration [29,30]. WHO considered integration as a key element of primary health care following Alma Ata declaration in 1978 in order to reduce the globally burden of visual impairment [3]. Table 2 shows the Progress Development of PHC AND PEC in Nigeria after Alma Ata Declaration in 1978**.**

Secondly, some major successes since the launch of the VISION 2020 initiative as well as World Health Assembly (WHA) resolutions – WHA 56.26 resolution in 2003 and WHA 59.25 in the year 2006, most member countries have approved the Global declaration and developed plan. Some countries have reported impressive success in the prevention of blindness. In Gambia and India, the prevalence of blindness have decreased by 40% between 1986 and 1996 and 25% in 2002 (8.9-6.7 million) respectively [28]. In Nigeria, Muhammad and Adamu (2014) reported that although service utilization was low in the two states compared, the more Vision 2020-compliant state has greater proportion (Fig 1) of

- Being aware about general PEC services
- Of households aware of any PEC service; and
- Feeling of need to utilize PEC services

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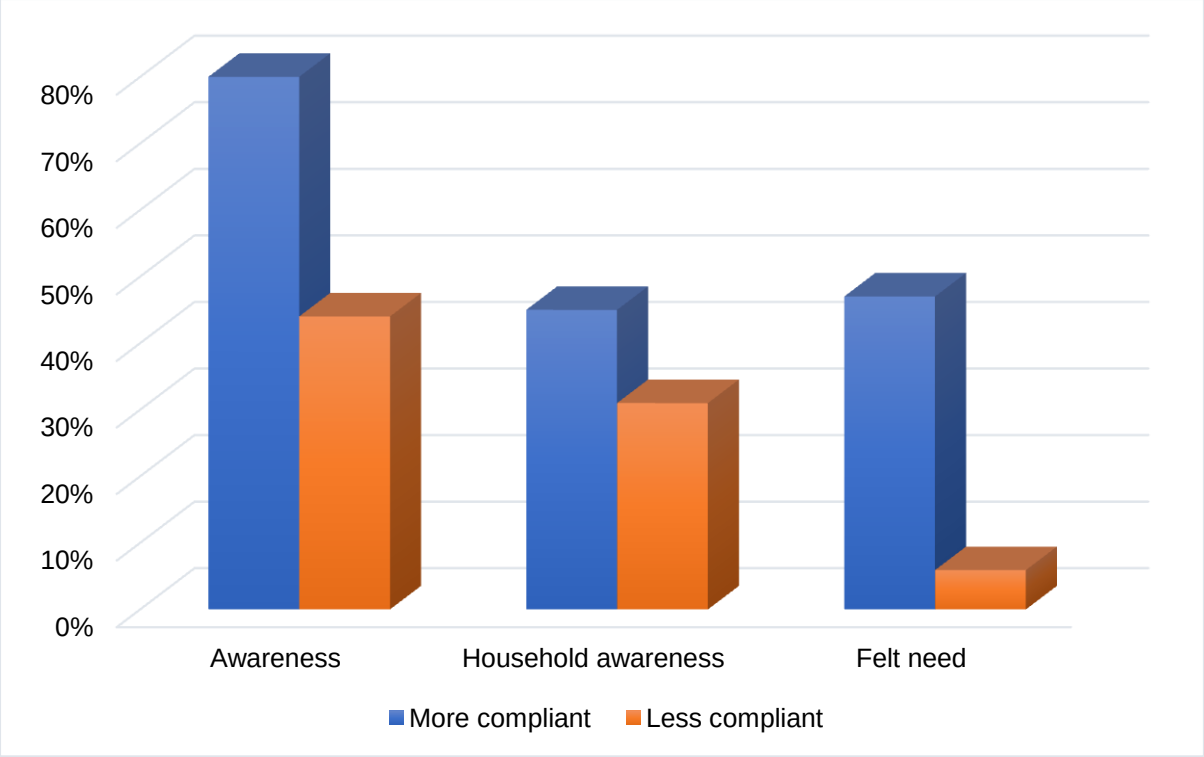

Fig 1: Impact of VISION-2020 compliance on eye care services

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Table 2: Progress Development of PHC on PEC in Nigeria after Alma Ata Declaration

PHC/PEC Achievement	1978	1984	1988	1992	1995	1998	1999	2008
Alma Ata Declaration								
PHC to address issues of access to PEC [14]								
National health policy of Nigeria was launched [31]								
Establishment of National PHC Development Agency [31]								
Creation of African Programme for Onchocerciasis Control [32]								
UN member states signed up for the GET2020* program [38, 45].								
Right to Sight Initiative [33]								
Sightsavers International eye care support program† [34]								

*Global Alliance for the Elimination of Blinding Trachoma by 2020

†In Kwara state: increased surgical rate of cataract operations from 196 per million per year in 2003 to 932 in 2007

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3.2. 10-Years (2010 - 2020) Landmark achievement on PEC Health Promotion in Nigeria

World Health Assembly endorsed a resolution tagged “Universal eye health”, ensuring that all people have access to needed promotive, preventive, curative and rehabilitative health services. It stresses the importance of PEC in attaining Universal Eye Health, calling on member states to include PEC in PHC [36]. In Nigeria as in many low-medium income countries (LMICs), non-governmental organisations (NGOs) provide a significant proportion of eye-care services. The NGOs involved in PEC in Nigeria include Sightsavers, Christoffen-Blinden mission (CBM), the Evangelical Church of West Africa and the Tulsi Chanrai Foundation (TCF). The broad aim of the NGOs including Sightsavers-supported programme was to reduce preventable blindness through the provision of sustainable outreach, primary and secondary referral services using a health systems’ strengthening approach [16]. Of significate note in Nigeria, prior to implementation of VISION 2020-Right to Sight strategy between 2005 and 2014 in Sokoto State, Nigeria, by the Ministry of Health in collaboration with Sightsavers, UK, baseline survey in 2005 and another survey conducted in 2016 showed a reduction in prevalence of blindness and improvement in vision status of people aged 50 years and above as shown in Figure 2 [37]. Table 3 shows decade landmark achievement on eye health promotion in Nigeria

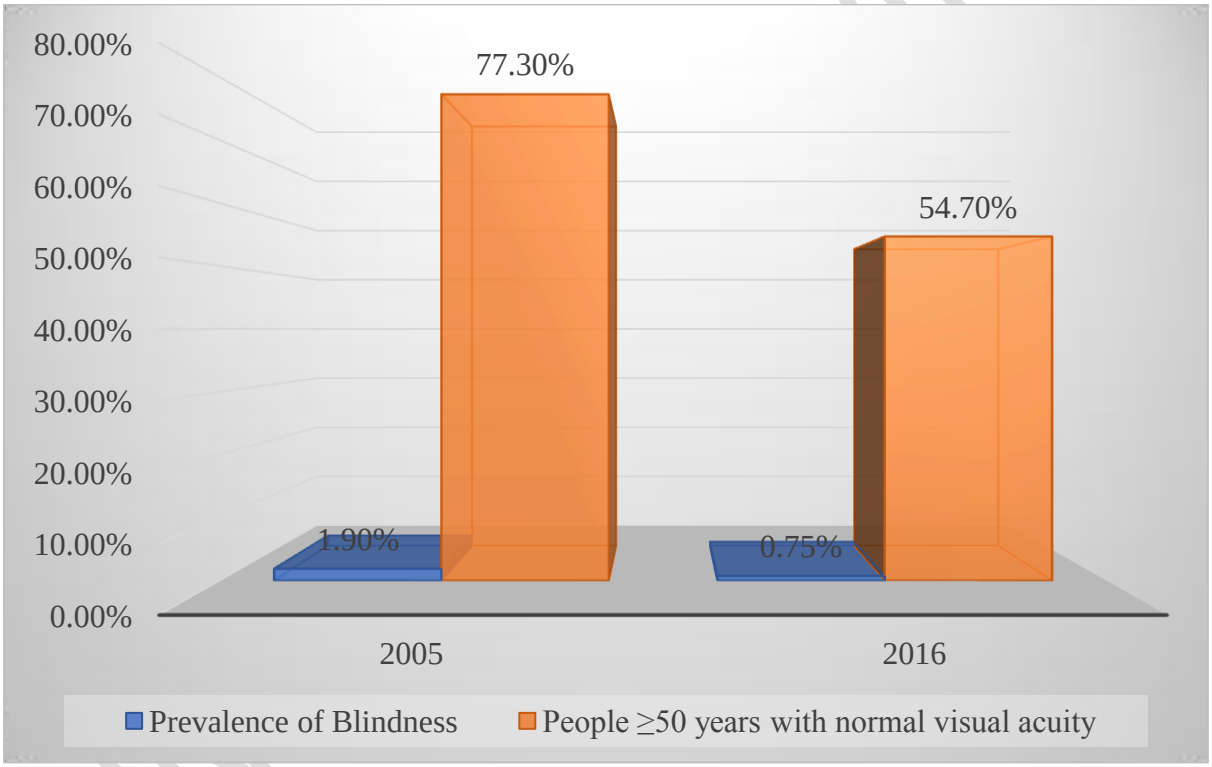

Fig 2: 2005 and 2016 comparative survey of blindness and vision status prevalence [37].

Table 3: Decade landmark achievement on eye health promotion in Nigeria

Decade Achievements	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
SAFE[1] strategy reviewed[2] [38]											
The elimination of blinding trachoma achievability report[2] [38]											
≈1.5 million Trachoma trichiasis operations conducted since 2011 [39]											
ICTC[3] strategic plan on elimination of blinding trachoma by 2020 [38]											
The Global Trachoma Mapping Project (GTMP) surveys [39].											
WHO's universal eye health global action plan 2014 – 2019 [36]											
Pfizer donates antibiotic (Zithromax) for mass trachoma treatment [38]											
Onchocerciasis largely eliminated following mass treatment [32]											
The Federal government plans PEC services in PHC across Nigeria [15]											
Target to reduce global blindness from 75million to <25 million [33].											

[1]**S**urgery for trichiasis, **A**ntibiotic treatment, **F**acial cleanliness, and **E**nvironmental improvement (SAFE)
[2]By the International Task Force for Disease Eradication (ITFDE)
[3]International Coalition for Trachoma Control

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4. DISCUSSION

Alma Ata Declaration called on all governments to formulate national policies, strategies and plans of action to launch and sustain primary health care as part of a national health system. It is left to each country to innovate, according to its own circumstances to provide primary health care. Though PHC centres were established in both rural and urban areas in Nigeria with the intention of equity and easy access, regrettably, the rural populations in Nigeria are seriously underserved when compared with their urban counterparts [40]. Lack of political will [24,25,41], inadequate funding/misappropriation of funds [24], inadequate inter-sectoral collaboration and conflicts between Local and State Governments are factors hindering the proper implementation of PHC [29]. The WHO recommends that at least 5% of GNP should be set aside for health. While the developed nations spend as much as 10% of their GNP on health, developing countries generally spend 1.5 to 4% [24]. This manifested in the low performance of the PHC facilities [42]. In Nigeria, federal government allocation to health between 2009 and 2013 ranges from 3.7-5.8 percent of total budget allocation [43]. About 70% health care payment in Nigeria are made out-of pocket, thereby resulting to poor health seeking behaviours [43]. This includes PEC.

One way to improve access to eye care in LMICs is to integrate eye care into primary health care (PHC), which is advocated by the World Health Organization (WHO) in their report- Universal Eye Health: Global Action Plan 2014-2019 [15,44]. In 1984, the World Health Organization (WHO) recommended a primary health care approach to address issues of access to eye care. This included appropriate management of eye conditions at the primary care level with cascading levels of referral for more complex conditions. From 1999, the VISION 2020 Initiative has become the dominant framework guiding eye care. VISION 2020 focuses on priority blinding conditions with the goal of the elimination of avoidable blindness and visual impairment by the year 2020 [35]. The World Health Assembly noted in 2009 that significant progress had been made: vision loss due to Vitamin A deficiency, trachoma and onchoceriasis had decreased [35].

Elimination of trachoma as a public health menace was a priority to global health organizations. In 1998, the World Health Organisation (WHO) launched a new goal known as 'Global Elimination of blinding Trachoma by 2020' (GET2020). Alongside this goal, the WHO also devised a strategy to help tackle and control the disease; this involved surgery for trichiasis, antibiotic treatment, facial cleanliness, and environmental improvement (SAFE) plan to combat trachoma. Consequently, the incidence of trachoma has decreased globally with it being eradicated as a public health concern in some countries such as Cambodia and Ghana.

Nigeria being a signatory of the SAFE programme aimed to improve the availability of water, sanitation, and health (WASH). Subsequently, they developed many ambitious initiatives such as the 'open defecation free' campaign to improve hygiene nationally, and worked in close collaboration with non-governmental organisations (NGOs) and pharmaceutical companies to provide healthcare to those with, and at risk of, trachoma. However, despite great strides in reducing the incidence and prevalence of trachoma, Nigeria has been unable to achieve eradication by 2020 [45].

Evidence showed that integration of primary eye care at the grassroot of health care markedly reduce the prevalence of visual impairment. In Gambia, in 1986, inclusion of PEC as part of a National Comprehensive Eye care strategy led to a reduction in blindness from 0.7% to 0.42% over 10 years [16]. A project to control vitamin A deficiency among 830 families in coastal Bangladesh evaluated an 18 months intervention which used group meetings in schools, mosques, and community settings supplemented with posters, leaflets, and a calendar. Evaluation showed increased knowledge about vitamin A rich foods, increased cultivation of vegetables, and a reduction in the prevalence of night blindness [17].

Similarly, there has been collaboration between Sightsavers, UK and the Ministry of Health on *VISION 2020 – Right to Sight* program; which has led to reduction in prevalence of blindness from 1.9% in 2005 to 0.75% in 2016 as well as improvement in vision status of people aged 50 years and above [37]. This encapsulates the fact about health promotion for PEC, which needs to be advanced further.

CONCLUSION

It is important to note that ocular health promotion and improved eye-care delivery services at the PHC level have markedly reduce the prevalence of blindness and visual impairment globally. Vision loss due to Vitamin A deficiency, trachoma and onchoceriasis had decreased. Consequently, the incidence of trachoma has decreased globally with it being eradicated as a public health concern in some countries such as Cambodia and Ghana. Despite non achievement of eradication of trachoma in Nigeria, its incidence and prevalence have reduced significantly as a result of advocacy aimed to improve the SAFE strategy. However, there is a need for more advocacy, which may enlist the support, endorsement and participation of a wider circle of players, including the minister of health,

district governments and PHC workers to provide and improve the delivery of eye-care services at the PHC. The role of government is critical in promoting access to essential and quality health services through the building and maintenance of infrastructure, training and retraining of the workforce, creation of directorate for ocular health promotion in the Federal Ministry of Health, integration of eye care into PHC, as well as restructuring of PHC policies to include ocular health promotion programs. The NPHCDA policies should have specific strategic plan for ocular health promotion in the PHC system, which should include; prevention of eye diseases through health education, immunisation, eye safety promotion, vitamin A supplementation, education on personal hygiene and maternal services to detect sexually transmitted eye diseases, vision screening exercises, provision of refractive services and spectacles, and cataract surgical services in order to bring avoidable blindness and visual impairment to the barest minimum.

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