

# Knowledge, perceptions and expectations from capitation as a provider payment mechanism among primary health care providers in the Kassena-Nankana District of Northern Ghana.

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## Abstract

**Background:** A nation-wide rollout of capitation as a provider payment mechanism was undertaken in Ghana in 2016. There is limited literature on the relationship between knowledge of the NHIS capitation policy and perceptions of the scheme among healthcare providers in the region. This study aims to assess the knowledge, perceptions and expectations of Capitation among primary health care providers in the Kassena-Nankana districts of northern Ghana.

**Methods:** With a qualitative approach, data was collected in the Kassena Nankana district of Ghana in October 2016. Seven in depth interviews were conducted with health providers at Community Health-Based Planning Services [CHPS] compounds, Health Centres and the hospital. Responses from the interview were transcribed. Codes were developed for themes that were identified from the transcripts using Nvivo 11 software. Appropriate quotes were selected from the interviews to support the thematic content analysis.

**Results:** Healthcare providers in the region possess sound knowledge of the NHIS Capitation, but there are some gaps. The primary health care providers were not sure of the exact duration for which a PPP retains a client. Apart from this, there were also doubts regarding seeking care when away from the PPP. It was also revealed that the healthcare providers have a very positive attitude towards the scheme and was ready to welcome it as it is initiated in the region.

**Keywords:** Primary Health Care, Health Centres, Healthcare, Health Policy.

## Background

The National Health Insurance Scheme [NHIS] Ghana has recently initiated a nation-wide rollout of Capitation as a provider payment mechanism. This is being followed a successful pilot that was conducted in the Ashanti region in 2013. Cross-sectional surveys with insurance subscribers and health care providers have been conducted in the Ashanti region, Kumasi but there is no literature with regards to NHIS Capitation and its knowledge in the Upper east region of Ghana. Similarly, there is no literature on the relationship between knowledge of the benefits of the NHIS and perceptions of the scheme among healthcare providers in the region. Even during the pilot phase there were mixed feelings regarding the new policy. In a press release, the

Society of Private Medical and Dental Practitioners notified the public that “We suspend our services to NHIS subscribers indefinitely. The system is detrimental to quality of health care provision and a major threat to the survival of private health facilities” (The Ghanaian Times newspaper dated 02/01/2012). The Pharmaceutical Society of Ghana even went a step further and was reported to have sued the NHIA over capitation

payment because it “poses grave danger to patients given among other factors the recognition it (capitation payment) gives to persons outside the pharmacy profession” (The Daily Guide newspaper of 23/01/2012). Furthermore, the literature review suggests that there have been instances where the service providers could not discern between the Ghana-DRG and the Capitation payment mechanism. This study sought to bridge this gap in knowledge and assess the general attitudes of the healthcare workers regarding capitation in the Upper east region.

## Health care financing in Ghana

Ghana’s healthcare system is progressive in general, owing to the overall progressivity of taxes, which accounts for 50% of health care funding. Out of pocket payments which account for 45% of funding are regressive form of health payments to households by Akazili, Gyapong & McIntyr. The National Health Insurance Scheme was established by the National Health Insurance Act, 2003 (Act 650) “to provide finance to subsidize the cost of provision of health care services” [1]. Since its inception, three different payment mechanisms have been adopted [2].

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The act also established the National Health Insurance Authority (NHIA), which regulates all health insurance schemes in the country and implements the NHIS [3]. Ghana's health insurance scheme is a social insurance system, where citizens contribute premium to a mutual fund, from which their health care services are paid in case they fall sick. The mutual funds are managed at the district level. However, the central government supports the district schemes from National Health Insurance Fund, a fund generated from 2.5% Health Insurance Levy (VAT) on selected goods and services, and 2.5% of social security contributions of all Ghanaian workers by Amarteyfio & Yankah.

Ghana began its NHIS with paying for all services rendered through fee-for-service. Under this payment mechanism, the providers issue a bill listing all procedures and services that have been performed on or delivered to the insured client and requests payment reimbursement. Maceira in 1998 illustrated how fee-for service is known to cause a rapid rise in costs. Therefore, it is a significant threat to the sustainability of any health insurance scheme if it is applied alone as the payment method without any controls or balances by mixing other methods and this was seen almost everywhere fee-for service was being implemented [4]. The case of Ghana was no different and there was rapid cost inflation in the Ghana NHIS. The lack of standardization of the fees charged was also a source of confusion and controversy. In 2008, the NHIA introduced the Ghana Diagnostic Related Group (G-DRG) for services and standard itemized fees for medicines for NHIS clients. Thus, the medicines remained under the fee for service system, but their prices were an agreed uniform standard across the country. Diagnostic

Related groupings (DRG) means that payment rates to providers are fixed for a given group of diagnoses. The G-DRG payment method is used at all levels from the primary care right up to the tertiary (teaching) hospitals. However, the challenges seen with the Fee-for-service mechanism were failed to be addresses by the G-DRG mechanism. There were two main reasons for this. One, there is a risk of "tariff creep" also known as "DRG creep" where in health care providers code diagnoses upwards to obtain higher reimbursements [5]. There have been many instances of this practice [6]. For example, malaria may be coded as complicated malaria to yield a higher reimbursement rate for the facility ("All malaria is complicated malaria"). Secondly, the DRG system also failed to solve the moral hazard behaviour on the part of clients. For instance, under the DRG system, clients are free to hop from one provider to another. This gives clients the opportunity to visit different health facilities with the same problem within the same period, thereby escalating cost. Thus, it is clear that the system was being abused by both the providers and clients [7].

Under Ghana's National Health Insurance Regulations, 2004 [8], payment to providers can be made through many systems including capitation. Capitation is a prospective means of paying health care staff based on the number of people they provide for through a capitation fee (usually a negotiated payment made for an agreed period by an insurance scheme to a health care provider per person covered by the scheme [9].

This type of payment system transfers the economic risk from third party payers to health care providers.

### **Capitation**

Capitation is a fixed amount of money per patient per unit of time paid in advance to the physician for the delivery of health care services [10]. The British National Health Service has used capitation for decades. Thailand, which is a middle-income country that now successfully covers virtually all its citizens with health insurance, uses capitation as the base of its provider payment system and reserves methods such as DRG for the higher referral level by Amarteyfio & Yankah. Being a relatively newer concept in Ghana, there is little gray literature available regarding capitation under NHIS. A study conducted in the Ashanti region found out that many of the respondents selected hospitals as their primary care providers, and the two most important motivations for the choice of care provider were, proximity of geographical access, and perceived quality of care [11]. The study also found that NHIS subscribers had high trust in their primary care provider in providing them with good quality care despite having a negative perception towards capitation as a payment mechanism.

Another study conducted in Kumasi metropolis area found that almost 98% of the interviewed clients of NHIS in the region had heard about the term but few could fully comprehend its function. The study also found that a high percentage (94%) of care providers thought that clients did not think positively about capitation as a payment mechanism. The reasons for this were mostly misconceptions such as the scheme being politicized, the scheme not providing clients a free choice of providers, and inadequate coverage on terms of medicines [12].

Abogaye in 2013 found that the implementation of the capitation pilot in 2012 could have been handled more efficiently and cited reasons such as lack of knowledge and awareness of the capitation system among both primary care providers and healthcare subscribers. Other reasons included confusion regarding the primary care providers to whom capitation was assigned during the pilot phase and service providers not understanding the differences between capitation and Ghana diagnostic related grouping [13].

Koduah, van Dijk and Agyepong examined the various decisions and actions around the exclusion of antenatal, normal delivery and postnatal care from the per capita package. They found that tensions and complicated relationships between technical considerations and politics and bureaucratic versus public arenas of conflict are important influences that can cause items to rise and fall on policy agendas [14].

Another article examined the Capitation policy debate in Ghana and illustrates the extent to which various sub-systems in the policy debate advance arguments to legitimize their claims about the contested capitation payment system [15].

## **Methodology**

### **Study Location**

The Kassena-Nankana District (KND) is located within the Upper East region (UER) of Ghana and on the southern border

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of Burkina Faso. The capital of this district is Navrongo and the KND was split into two districts, Kassena-Nankana East and West Districts, in 2008. This study will focus on both and refer to them as KND. The Kassena-Nankana West and Kassena-Nankana East Municipality are two districts located in the Upper East Region of Ghana [16, 17].

Navrongo Health Research Centre where this research was conducted is home to the Navrongo Health and Demographic Surveillance System (NHDSS) which has divided the town of Navrongo into five zones, North, South, East, West and Central [18].

### **Study Design**

The study was primarily qualitative utilizing semi structured in depth interviews (IDIs) was conducted in October 2016 to elicit information from the primary healthcare providers. The interviews were conducted by the primary investigator himself. The interview guides are included in the annexes.

### **Study Population**

In Ghana, majority of health care services are provided by the government and largely administered by the Ministry of Health and Ghana Health Services. The system has five levels of providers: health posts which are first level primary care for rural areas, health centres and clinics, district hospitals, regional hospitals and tertiary hospitals. These programs are funded by the Government of Ghana, financial credits, Internally Generated Fund (IGF), and Donors pooled Health Fund [19].

Primary health care in Ghana is delivered at hospitals, health centres and CHPS compounds. The target population therefore includes health care providers (doctors, nurses and health care workers at the hospitals and healthcare centres. Navrongo has one district hospital, The War Memorial Hospital, seven health centres and 27 CHPS compounds [18].

Therefore, the target population for this study were healthcare providers involved with providing primary healthcare services in the district. The personnel interviewed comprised of primary healthcare providers such as mid wives and nurses. At the War Memorial Hospital, a senior official was interviewed. The individual holding this office served as a physician as well as handled the insurance related administrative proceedings of the hospital.

### **Sampling**

To ensure fair representation from each operational region, it was decided that one healthcare worker will be interviewed from one health centre and one CHPS compound from each of the five zones and two interviews would be conducted from the district hospital which represented the central zone. In total, 12 in-depth interviews were to be conducted. However, as saturation was achieved, the process of data collection was stopped after the seventh interview.

### **Data Collection**

The data was collected using a semi structured questionnaire which was adapted from a study conducted by Joseph Nii Otoo Dodoo, examining the capitation pilot in the Ashanti region in

2013 for his master's in Public Health thesis at the University of Ghana [20]. The interviews were conducted in English. As healthcare workers in Ghana receive their formal training in English, there were no issues regarding the language barrier. Topics discussed during the interviews ranged from the awareness and understanding of the healthcare personnel regarding capitation, where they stand in the whole scenario, how it affected them and their reasons for support or opposition to the policy. The interviews lasted 15-20 minutes and were tape recorded and later transcribed for analysis.

The primary investigator also took manual notes during the interview. All sampled healthcare facilities were visited, and the facility heads were requested for an interview which was conducted in their offices at the facility itself.

### **Data Analysis**

Responses from the interview were transcribed and codes were developed for themes that were identified from the data using Nvivo 11 software. Appropriate quotes were selected from the interviews to support the thematic content analysis. The results from the study were presented in verbal quotations, tables and diagrams.

### **Ethical Considerations**

Ethical approval was obtained from the Institutional Review Board at Navrongo Health Research Centre (NHRC IRB New Protocol 2014). All participants signed their consent to participate. Participation in the research was completely voluntary and participants had the option to withdraw from the research at any point in time without any adverse consequences. Informed consents were obtained from all participants prior to administering the semi structured interview. The identity of the respondents was kept confidential by assigning a code to each set of responses.

## **Results**

### **Knowledge of Capitation**

All healthcare providers possessed a sound knowledge of the NHIS capitation. However, there were some gaps in the knowledge for e.g. the duration for which a Preferred Primary Provider [PPP] retains a client. There were also confusions regarding seeking care when the client is far away from her/his PPP. Most respondents mentioned attending towards capitation. It was also seen that the level of knowledge increased with the size of the healthcare facility i.e. personnel working at a hospital had a better understanding of capitation as compared to a workshop in the Ashanti region, Kumasi in the previous year where the healthcare workers were imparted knowledge and awareness one working at a CHPS compound. Another finding was that the level of knowledge also increased with the position of the health care worker.

*“Yes you know that sickness can happen anywhere. I could just be in a bus and going to Accra. It could just happen to me. And I will decide to go to a facility, meanwhile, maybe I didn't choose this facility. But I have to go there, because where it is. But I think that maybe I didn't get the education well.”*  
-Community Nurse, CHPS Compound.

*“Well with the capitation, the NHIS is going to be an advanced payment for the health care costs which is, based on the number of the capitated, the number of people that are registered at the facility. So, the money will be advanced to the facility to take care of them, in other words, those who fall sick will be taken care of from the money that has been advanced. Those who do not fall sick, it is to the advantage of the facility, so this will be given periodically to facilities to deliver health services.”* -Senior Official, Hospital

### **Attitudes towards NHIS Capitation**

All healthcare workers had a positive anticipation towards the nation-wide rollout of the NHIS capitation policy. All the respondents agreed that the policy will be instrumental in improving healthcare services in Ghana. However, the responses also found that there had been a delay in the implementation of the policy. At the time this research was conducted, the implementation was supposed to be completed but most respondents revealed that they were yet to hear from their higher authorities regarding the necessary mechanisms that should be in place for the initiation of the policy.

*“It is a good policy for Ghana in general.”* -Midwife, CHPS Compound.

*“Yes, again as the manager or head of a facility, you do ok. Because you wouldn't be following health insurance for unpaid moneys. At the end of the month or at the beginning of the month, you have this amount. So, it makes you run your facilities well.”* -General Nurse, Health Centre.

*“Oh, we are looking forward to the NHIS capitation, yes. That is, we are hoping to, looking forward to embrace it as a national policy.”* -Senior Official, Hospital.

### **Reasons for the introduction of Capitation**

The respondents elicited a variety of reason as to why they thought the policy of capitation was being implemented in the country. It was found from the responses that due to ignorance many care seekers would seek treatment even for the least illness.

*“Basically, it had to do with ignorance. Yes, the mindset of the general, the layman, is that. You have.. with the African region, especially the northern, when something is free, you tend to abuse it. But then when you have something that you have to pay for, you cherish it, you value it more. So, with this one, because of the nature of it initially, it made people abuse it more”.* -Unit Head, CHPS Compound.

Respondents also spoke about how NHIS subscribers would move from one healthcare facility to another if they weren't satisfied with the treatment that was provided to them. This lead to practice of Doctor Shopping. All respondents agreed that the capitation policy would be instrumental in curbing this practice as the insured member is assigned to one health care facility of their choice for six months and this in turn would prevent cost escalation and would pave the path for a sustainable insurance mechanism.

*“What I am expecting is that, it's going to help all of us, because we see that most of the clients, we see that what they*

*are trying to do, is they are trying to bring down on doctor shopping. There are clients that come here for treatment, and they get it and go to a different place for treatment. Which is not the best?”* -Staff Nurse, CHPS compound.

Also raised was the issue of the insured persons asking for only a certain type of drug to be prescribed for them. One respondent explained this issue as follows:

*“So maybe like a lot of old aged are familiar with the drug paracetamol so when you come in and give a different drug let's say ibuprofen the person will say no this is not the drug that I want and would go to the next facility”.* -Staff Nurse, CHPS compound.

### **Provider Client Relationship**

The healthcare providers unanimously agreed that it will be a part of their duty to be educated and sensitize their patients regarding the information and the intricate details of the NHIS Capitation policy. This was a very positive response as most of the population in the UER is illiterate therefore the onus lies on the healthcare providers to educate the NHIS subscribers who have selected their facilities. A midwife had the following comment regarding this.

*“The pregnant women who come to the facility under the NHIS Capitation we educate them on the benefits”* -Midwife, CHPS compound.

Another healthcare worker who was the Unit Head at a CHPS compound stated that,

*“Yeah my duties or duties of any healthcare provider with regard to this capitation for us to intensify or to notify the ignorance of our people to try to clear their minds that oh this is a new system so we need to be like understand what it entails cause this is your catchment area you stay under this so this is where you have chosen the primary care provider so anytime of the day anything is wrong with you may go to that place”* - Unit Head, CHPS Compound.

The respondents also understood that with the new policy came the responsibility for improving the services at their respective facilities. This is because each subscriber was assigned to a facility of their choice for duration of six months following which the subscriber has the option to continue with the facility or select another one. Also, the facility receives the funds depending on the number subscribers a facility has enrolled with them. The remunerations for the personnel also come from these funds.

*“All this will call for good customer care. And this is not a time to say you have to improve your customer, it is our primary responsibility. It has to be. So as this is coming, it stresses more in terms of good customer care.”* -Senior Official, Hospital.

Apart from this, the healthcare workers agreed to the fact that the duration of six months was an adequate time for them to build a relationship with their patients and as the patient is registered with one facility, they would have access to past medical records of the patients and their complete medical history.

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*“There is an interpersonal relationship while you’re there. It will help you to know your clients.” - Staff Nurse, CHPS compound.*

### **Issues and Shortcomings**

Although the general notion regarding the NHIS capitation policy was positive, certain drawback and shortcomings were also discussed in the interviews. The issues raised included lack of awareness regarding the policy among the general population in the region. The respondents also agreed that there was a need for generating awareness and sensitizing the masses regarding this, as the NHIS subscribers need to register for the facility of their choice and many individuals weren’t aware of this.

*“Yes, but another point- people don’t understand, maybe they don’t understand capitation very well. So, it will bring another problem, because others have not already registered.” -Staff Nurse, CHPS compound.*

Delayed reimbursements were another issue that perturbed the respondents, as with the new policy the healthcare facilities would become financially independent and utilize the funds issued to them for the upkeep and up gradation of the facilities. A delay would mean reduced quality and quantity of services which in turn drive subscribers away from the facility. This would become financially detrimental to the healthcare providers and their healthcare facility.

*“I think that this thing, the disadvantage will only be when the reimbursement doesn’t come. And we will not be having drugs. Because if they don’t reimburse, we will not have enough drugs to run the facility. So, I think that will be where the problem will come. But apart from that, if there will always be reimbursement, we will be fine.”-Midwife, CHPS compound.*

Some healthcare workers also pointed out the fact there was a need for technological scale up especially at lower levels of care such as at CHPS compounds.

*“Yeah, especially in this particular area. Unlike towns, they got hospitals and more staff, the policy will not affect it. Because they have a record office where people going to be going. Or they are trained on how to. So, when you come they only enter into the computer. There is no need to open the papers or possibly have to slot a cd and wait for it to load. You can’t do that here”.* -General Nurse, CHPS Compound.

One of the respondent raised the issue of long term sustainability and the need for strong monitoring and evaluation mechanism in place.

*“They will probably just be...probably just going to be how to sustain the capitation. Improvement of the health will not be a problem. But we will need sustainability, we need long term sustainability. Monitoring of submissions is also a problem. Because when something like this, as good as this is implemented, probably would have a need for people to go out and supervise how effective it is, within the facilities”.* -Unit Head, CHPS Compound.

Another respondent suggested that cost intensive secondary and tertiary care should be included under the capitation umbrella.

*“Once again, what I would want, with NHIS and this capitation to do is to include certain things. Now you could get basic medical care. But when it counts is when you can’t pay. That is always the problem. And surgical care is cost intensive, so I think if something of that sort is implemented it will just care for basic surgical procedures it will help”.* -Unit Head, CHPS Compound.

### **Effects on health care providers**

When asked regarding as to how capitation affected them individually as healthcare providers the respondents were not quite sure as to how the policy affected them. This could be due to the fact the actual implementation of the policy has not begun in the region. However, the nature of responses ranged from no effect to very positive effect on healthcare providers.

*“I don’t think there is a benefit for the Healthcare providers”.* -Midwife, CHPS compound.

*“It has. It has. With me, the capitation system... has actually broadened my view and my duties more towards certain policies of the government. It has made me aware that, when things start up you tend to get mishaps or mistakes. But as this government is committed to change the system, and we are seeing changes. And this policy is part of the changes that will help change the system, in [Ghana, in general]. And definitely when the health system has changed in Ghana, it comes to affect you definitely”.* -Unit Head, CHPS Compound.

### **Discussion**

This study has unearthed some interesting findings concerning the knowledge, awareness and general perceptions of the healthcare workers in the region. The study is unique in the sense that it is the first of its kind to focus entirely on primary healthcare workers. The health care providers also believed that it was a part of their duty to educate their patients regarding the new scheme. This is of paramount importance as the general population in the region is illiterate these results are a deviation from previous studies conducted in Ghana. As seen in the literature review section previous studies found a lack of knowledge regarding capitation among primary health care providers [13]. Studies had also revealed that a high percentage of care providers believed that clients did not have a positive perception towards capitation as a payment mechanism [12].

The responses also revealed that the issue of provider/ doctor shopping/moral hazard was rampant. This leads to abuse of system given the free nature of the earlier health insurance system. These issues have also been mentioned in previous studies by Debpur. Therefore, the capitation policy not only serves as a mechanism to keep this in check, but it can also in still a positive behaviour change among NHIS subscribers [21]. Not only this as seen from the literature review the practices of coding all disease as complicated existed in the healthcare system as well, the new policy will bring a check on this as well and call for better customer care from the healthcare workers at their facilities. The interviews also revealed that the health care workers found that many of their patients are unaware of the capitation scheme, and therefore

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it would be in the best interest of policy makers to encourage better advertising and marketing of the capitation scheme to increase the information that individuals have on the subject. Although many health workers possessed sound knowledge of the policy, gaps did exist and therefore there is a need for bolstering the education of the health care workers on the subject matter as well. Better marketing and advertising of the benefits will not only sensitize the masses but also increase enrolment in the scheme. In addition to improving marketing of the scheme, policymakers will also have to ensure that adequate monitoring and periodical evaluation are carried out as the implementation processes is completed. This issue was raised by the healthcare workers and they were not aware if any such mechanisms were in place. These mechanisms will ensure that the scheme is sustainable in the long run. These efforts need to be made to help ensure that enrollees will remain enrolled in the scheme, thereby assisting in the sustainability of the NHIS. Some healthcare workers suggested that the capitation policy may be extended to cover secondary and tertiary care.

As mentioned earlier the need for technical scale up was also raised by the respondents. This is important as adequate technical support in terms of record maintenance and account keeping would be important for ensuring the policy is implemented and sustained smoothly.

However after a period of five years post introduction, the country of Ghana ceased the capitation mechanism under the NHIS [22]. Various studies undertaken later, have found that the reasons for the same are the ones that were unearthed in our study in the upper east region of Ghana back in 2018.

## Conclusion

The author presents this study as guidance for future interventions which revolve around piloting and implementing provider payment mechanisms such as capitation. Our study undertaken in 2016 rightly pointed that cost containment and prevention of provider shopping were some of the key aims for introduction of the policy. This was also corroborated by future studies undertaken by [23]. They also pointed towards the negative perceptions as well as gaps in knowledge and understanding around capitation as one of the key factors for the failures of the policy. Further, they also unearthed the regional political nuances that contributed to the lack of acceptance of the policy in the areas where it was implemented. The policy did yield some positive results in terms of service uptake and claims utilizations under the NHIS in terms of primary healthcare service as explored by [24]. Similarly, services in the implementation geographies saw improved the compliance of CHPS with the WHO recommended laboratory care in pregnancy care services [22]. These evidences point to the sound technicalities of the policy resulting in successes with respect to clinical and programmatic aspects [25-28]. Despite this, the policy was found itself in a limbo and an eventual abrupt end because it failed to connect with the people whom it intended to serve as well as those who were to implement it [29- 32].

Thus, through the study the author aims to build the case for undertaking qualitative research methodologies which explore

the knowledge as well as the perceptions of the citizens, subnational and national leaders and the service providers before any such pilots are undertaken [33, 34].

## Abbreviations

- CBHIS - Community-Based Health Insurance Schemes
- CHPS - Community Health-Based Planning Services
- G-DRG- Ghana Diagnosis Related Groups
- FFS- Fee for Service
- IMF- International Monetary Fund
- KND- Kassena Nankana Districts
- LI – Legal Instrument
- MC- Main Contractor
- MHO- Mutual Health Organizations
- MoH- Ministry of Health
- NHIA- National Health Insurance Agency
- NHIS- National Health Insurance Scheme
- NHRC- Navrongo Health Research Center
- NDC- National Democratic Congress
- NPP- New Patriotic Party
- PPM- Provider Payment Mechanisms
- PPP – Preferred Primary Provider
- RAP - Resource Allocation and Purchasing
- SAP- Structural Adjustment Program
- SSS - Social Security Scheme
- UER- Upper East Region

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