International Journal of Community Medicine and Public Health
Rout SK et al. Int J Community Med Public Health. 2021 May;8(5):2338-2345
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20211755

Original Research Article

State led innovations for achieving universal health coverage in a low resource setting Odisha, India: opportunities and challenges

Sarit K. Rout[1]*, Upasona Ghosh[1], Amrita Parhi[1], Sudhashree Chandrashekhar[2], Shridhar M. Kadam[1]

[1]Indian Institute of Public Health, Bhubaneswar, Odisha, India
[2]Senior consultant, World Bank Health system transformation platform- HSTP and New Delhi, India

Received: 23 February 2021
Revised: 05 April 2021
Accepted: 06 April 2021

***Correspondence:**
Dr. Sarit K. Rout,
E-mail: sarit.kumar@phfi@org

ABSTRACT

Background: Odisha, a developing state of India, has introduced an innovative scheme known as Biju Swasthya Kalyan Yojana (BSKY), which aims at providing free health care to all the people. This paper examines the scope, key features, challenges and potentiality of BSKY to achieve universal health coverage (UHC) in Odisha.
Methods: We reviewed policy documents and conducted qualitative interviews with key state government officials and other stakeholders to understand implement processes and constraints.
Results: The scheme intends to provide free health care to all people in public health care institutions and additionally, 71 lakh poor households can avail health care services from the empanelled private hospitals with financial coverage up to 5 lakhs per family and women members up to 10 lakhs annually. This is implemented in assurance mode by merging state-run schemes- Rashtriya Swasthya Bima Yojana (RSBY), Biju Krushak Kalyan Yojana (BKKY) and Odisha State treatment fund (OSTF). The implementing agency is introducing several measures to control unnecessary health care utilisation and cost. Gate keeping mechanism and reserved packages by public hospital are major initiatives in this direction. Further, efforts to settle claims on time and IT related challenges are teething problems of the scheme. The findings further suggest that public expenditure on health stands at 1.3% of GSDP and inadequate human resources and health infrastructure are affecting service delivery.
Conclusions: Achieving UHC with such a low public spending on health and different service delivery constraints looks ambitious. Odisha may learn from other countries to implement UHC phase wise.

Keywords: Biju swasthya kalyan yojana, Publicly funded health insurance, Financial protection, Universal health coverage

INTRODUCTION

Globally, the health systems are facing several constraints for achieving Universal Health Coverage (UHC). One of the major barriers in achieving UHC has been low financial protection to people and the proportion of population with out-of-pocket expenditure exceeding 10% of household budget. Further, percentage of population impoverished due to OOP increased from 1.8 to 2.5% in 2015. This suggests financial protection is deteriorating across the globe. The progress towards UHC differs across countries with different service coverage and financial protection measures.[1] Since there is no standard approach towards achieving UHC, countries have adopted different

pathways. In a recent review, the World Bank suggested how countries have designed bottom-up approach especially focusing on the poor and vulnerable population to achieve UHC. This review suggested that balance between financing and provisioning gaps is required to provide financial protection to achieve UHC.[2] Successful examples of bottom-up approaches with emphasis on financing and provisioning strategies towards achieving UHC can be cited from several middle-income and low middle-income countries. For instance, Philippines' tax based social health insurance for both public private sector workers; Thailand's Universal Coverage Scheme (UCS); Brazil's Unified Health System run by publicly- funded services at the municipal level though federal government revenues and a decentralized health care system; Cuban system of community- based polyclinics embedded within traditional medical care services and building trained health human resources from the local neighbourhood-based family medicine clinics are some of the innovations which strengthen the paths towards UHC.[3-6]

India is also not an exception and has introduced several measures to achieve UHC. Low public spending on health is one of the major obstacles to achieve UHC in India. Despite high economic growth witnessed in last decade, India's public spending stands at 1.18% of GDP and out of pocket expenditure (OOPE) is quite high at 64.7% of total health expenditure.[7] Scholarly evidence showed impacts of OOPE on household poverty and vulnerability, estimated that around 32.5 to 37 million people have fallen below the poverty line due to OOPE on health.[8,9]

Another recent study shows medicine constitutes a major share in total OOPE and alone pushed 38 million people in to poverty.[10] World Health Organization (2019) report on financial protection in health estimated that only 56% of the population of India has access to essential services.[1] Therefore, financing health remains a major challenge in the country for achieving UHC.

In order to address 'financing gap', the country has introduced several publicly financed insurance/assurance schemes and many states launched their own schemes to provide financial risk protection against hospitalization cost.[11] Most recently, in 2018, the union government introduced Ayushman Bharath Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) that intends to provide financial coverage up to five lakhs against secondary and tertiary care hospitalization to 40% of vulnerable households.[12] Although, PM-JAY is a national scheme, there are certain states which have not joined the scheme but have introduced their own scheme.

Odisha an eastern Indian, launched - Biju Swasthya Kalyan Yojana (BSKY) in August, 2018 without joining the national scheme. Within the resource-scarce setting of Odisha state, BSKY promises free health care for all the people of the state irrespective of their socio-economic conditions. The scheme has inherent features to strengthen public health system in order to achieve UHC for its 43 million people.[13]

In this paper, we critically examined the scope, key features, challenges and potentiality of BSKY to achieve UHC in Odisha. The scheme is new and many processes are undergoing rapid changes during the implementation phase. Hence, evidence generated and recommendation made at the initial stage (within one and half years of implementation) by the study might help the State and the other regions alike globally, with similar financial and service provision challenges to learn from this experiment.

METHODS

The study used a mix of qualitative techniques, review of secondary literature and exiting related data to investigate the objectives. We analysed available scientific literature and government published documents to understand service coverage and health financing situation of Odisha. Programme guidelines, government orders and notifications of BSKY were reviewed to understand implementation processes.

Qualitative techniques - key informant interviews, participant observations, and group discussions were used to explore how the scheme has evolved and implemented. Stakeholders related to BSKY formulation and implementation both in state and district level were our study respondents. An open ended questionnaire was administered to understand perspectives of the stakeholders after piloting the same with a few significant state level officials. Key Informant Interviews were conducted with personnel associated with the process of designing the scheme at the state level – state health assurance society (SHAS) and in one district of Odisha in an inductive way. We interviewed six key respondents involved in formulation, operation, claims settlement and IT operations of BSKY, four district level health officials and four Third Party Administrators (TPAs) associated with BSKY implementation between August 2019 and December 2019.These respondents were identified based upon their level of association with the implementation process. We asked the questions related to: 1) genesis of BSKY 2) state-central polity dynamics 3) processes of BSKY 4) implementation challenges 5) ground level experiences and 6) future plans. We participated as observant in BSKY monthly review meetings conducted by SHAS and we analysed our observations along with the Key informant interviews through framework analysis approach.

RESULTS

Health status and service coverage indicators

Odisha accounts for 3.5% of India's population and ranks 16th in per capita GDP among 26 states of India.[14] The disease and morbidity pattern are rapidly changing in Odisha with increase of non-communicable diseases along

with the existing burden of communicable diseases. State's Infant Mortality Rate (IMR) is 41 per thousand live births against the national average of (33) during 2019. Further, the maternal mortality ratio though was high, has reduced to 150 in 2016- 18 from 180 in 2014-16 as compared to 113 at all India during 2016-18.[15] Moreover, the Crude Death Rate (CDR) is higher (7.9) in Odisha than the national average (6.7).[16] It is also noticed that even if the state average has improved, a large rural and urban divide is found in some of the indicators.

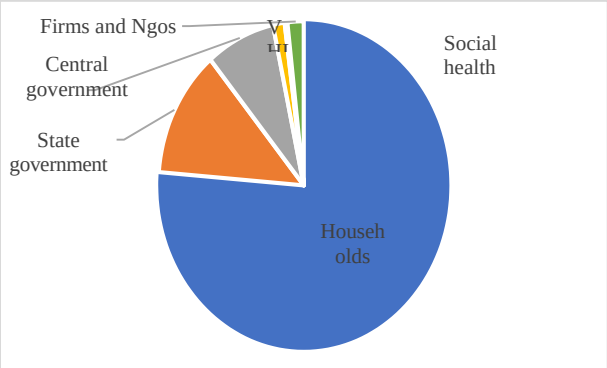

Figure 1: Distribution of health expenditure in 2013-14.

Source: Odisha State Health Accounts 2013-14.

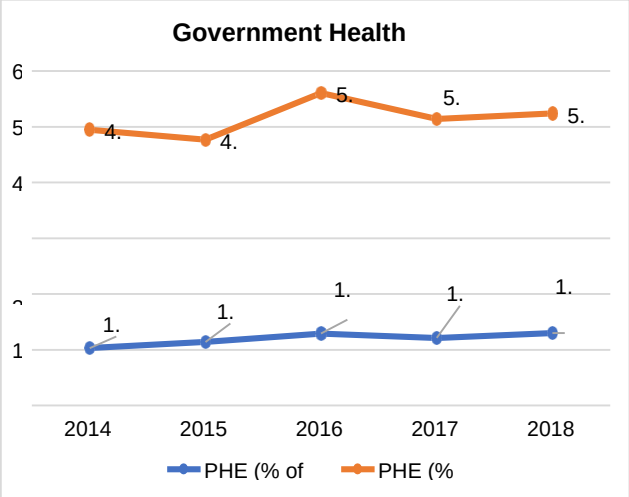

Figure 2: Share of public health expenditure in total government expenditure and GSDP.

Source: Authors calculation from State Government Budget Documents

Odisha's health system shows a higher utilization from public sector with a limited role of private sector. As observed, 56.8% of outpatient and 72.2% inpatient visits take place in public facilities.[17] Public health system faces several constraints due to inadequate man power, limited public spending on health leading to high OOPE at the point of care, inaccessible health services resulting from several supply side and demand side constraints and poor quality of care.[18] A recent study showed that the health workforce at 10 (Physician, surgeon and Nurse) doctors per 10,000 populations is woefully lower than the national average of 21 and WHO recommendations of 2320.[19] Further, there is also acute shortage of specialist doctors in the rural areas affecting service delivery adequately.

As observed from the table 1, state's performance in service coverage indicators is better than the national average barring gaps in a few indicators. Around 62% of pregnant women received at least 4 ANC check-up in Odisha which was above the national average of 51.2% as per NFHS-4. Similarly, the proportion of 12-23-month-old children immunized in Odisha was 78.6% while in India it was only 62%. Further, Odisha recorded 85.3% of institutional births and out of these, 75.9% were at public institutions.

More than three-fourth delivery (86.6%) took place under supervision of trained medical professionals in Odisha against the national average of 81.4%. (Table1).

Health financing situation of Odisha

According to the state health accounts report, total health expenditure constituted 4.58% of GSDP of which the share of public expenditure was 1.12% and rest 3.46% was private in 2013-14.[20] Further, the distribution of health expenditure showed that the risk pooling mechanism was weak as the share of out of pocket expenditure (OOPE) in total health expenditure was 76%. A further breakdown of household expenditure indicated that a majority around 58% was spent on medicine, followed by diagnostic and patient transport. There has been a minor drop in the share of OOPE to 71.5% of total health expenditure in 2015-16 as indicated in the recent National health accounts report.[7] This suggests that the OOPE is too high in the state.

Recently the state government has taken measures to increase public expenditure on health and as mentioned in Figure 2, the share of public expenditure on health has stepped up and it has reached around 1.3% of GSDP and 5.24% of total government expenditure in 2018-19. As major portion of OOPE purchase of medicine by the people, the state government has introduced NIRAMAYA-(free drug distribution scheme) in public hospitals to contain the share of OOP for drugs and Nidhan (free diagnostic services) at district hospitals partnership with private laboratories.

Considering Odisha's high OOP, the state government had introduced Rashtriya Swasthya Bima Yojana (RSBY), Biju Krushak Kalyan Yojana (BKKY), and Odisha State Treatment Fund (OSTF) to provide financial protection to people. RSBY was introduced by the Central government and was launched in Odisha in 2009. This scheme aimed at covering hospital expenses up to 30,000 per family for below poverty line population with sharing of premium by both state and union government.

Table 1: Service indicators.

Service Indicators	Odisha	India
Maternal health		
% Mothers who had at least 4 or more ANC check-ups (to total ANC regd.) (NFHS-4 2015-16)	62	51.2
% Mothers who had full antenatal care (NFHS-4 2015-16)	23.1	21
% Institutional deliveries (NFHS-4 2015-16)	85.3	78.9
% Institutional delivery in public facility (NFHS 4 2015-16)	75.9	52.1
% Births attended by (Doctor/Nurse/ANM/LHV)- (NFHS 4 2015-16)	86.6	81.4
Family planning		
% Contraceptive prevalence rate (any method) (NFHS 2015-16)	57.3	53.5
Immunization		
Children age 12-23 months fully immunized (BCG, measles, and 3 doses each of polio and DPT) (%) (NFHS 4 2018-19)	78.6	62
Infectious diseases		
Total case notification rate of TB per 1,00,000 population (NHP 2018-19)	159	204
No. of Malaria cases & deaths in 2017 (NHP 2018-19)	347860 and 24	844558 and 194
Annual Parasite Incidence (API) per 1,000 population (2019)	>5	<2

The state launched another scheme- BKKY, for the farmer community to protect them from the financial hardships resulting from hospitalization. As per the scheme, the farming households are eligible for coverage of 100,000 INR per year. There are two streams: BKKY stream I and stream II. In stream I, all eligible farming households get coverage up to 100,000 INR per family per year.[21] Under stream II, all eligible farming households who are RSBY beneficiary get 70,000 on the top of 30,000 available under RSBY. In addition to the health insurance schemes, the state also provides financial assistance to people suffering from life threatening disorders and diseases, through the Odisha State Treatment Fund (OSTF).

Nearly about 71 lakh households constituting nearly 71% population of the state are covered by different schemes. Though a limited number of studies have been conducted on the impact of these schemes on OOPE, most of them showed that, despite implementation of these schemes, people incurred a huge OOPE at the point of care. One study suggested that most of the people despite being covered by the RSBY had to incur OOP and 60.01% of the total OOP was on medicines. While only 5.7% of beneficiaries could benefit through the scheme, about 47.5% beneficiaries spent out of their pocket to avail treatment.[22] RSBY beneficiaries incurred OOPE post exhausting the coverage of Rs. 30,000/- so as to continue treatment at the private hospitals.[23]

Biju Swasthya Kalyan Yojana- Genesis and innovation

BSKY is the latest endeavour by the state government to provide financial protection against hospitalization for its socio-economic vulnerable population. This was lunched by the state government after the National government announced AB PMJ-AY in February 2018, one of the largest health insurance schemes in the world, which aims at providing health cover of Rs. 5 lakhs per family per year for secondary and tertiary care hospitalization to over 10.74 crores poor households constituting 40 percent of Indian Population . Both centre and participating states share the resources in 60: 40 ratios while North-east states the sharing pattern of centre and state is 90:10 and Union territories 100% support is provided by the centre.

As per our discussions with respondents, Odisha, in spite of several rounds of negotiations opted out of the scheme because of differences on population coverage with the union government. As per the criteria of union government, 61 Lakhs families were eligible under PMJAY, who fulfilled the deprivation/inclusion criteria as per the Socio-Economic Caste Census (SECC). However, Government of Odisha considered including 71 Lakhs economically vulnerable families who were already enrolled within the existing state health schemes. Since the centre and state could not reach consensus regarding the number of beneficiaries, the state government preferred to announce its own innovative scheme by merging all the existing state schemes.

Analysis of the processes of BSKY revealed that the scheme is innovative in terms of covering all the citizens of Odisha assuring free health care services irrespective of income, caste and social status at public health institutions. Additionally, 71 lakh economically vulnerable households can avail health care services from the empanelled private hospitals with financial coverage up to 5 lakhs per family and 10 lakhs to women members.[14] The families under these categories can receive cashless treatments at all public health facilities as well as 179 empaneled private

hospitals. Presently, there are 1589 packages under BSKY after merging all the packages from other schemes. This includes lump sum cost of inpatient treatment /day care/ diagnostic procedure for which a beneficiary avails the scheme.

A nodal agency known as State Health Assurance Society (SHAS) under the supervision of a senior bureaucrat has been formed to implement the scheme. For managing the hospitalization and settling claims by the private hospitals, the SHAS hired two Third Party Administrators (TPAs) who worked with private hospitals in different regions of the state till February 2020 and from March 1st, 2020 the SHAS moved to a completely assurance mode. The IT cell of BSKY has been developed to effectively implement, monitor and maintain transparency with the private sector. The software is also an integral part of the TPA managed private sector claim. Upon initial approval from both TPA and SHAS, patient details and medical transcripts are uploaded to the IT system for pre-authorization (for packages only above Rs. 10000) and claims. TPAs review the documents and recommend for payment. Doctors from the SHAS team verify the records and provide decision on a particular claim.

Implementation challenges

During the interactions with various officials- SHAS team, District Program Managers (DPM) and Medical Officers, the study found out a series of challenges related to governance, package rates, and generating awareness among people. According to the majority of the respondents, implementation challenges arise due to availability less than desired infrastructure and human resources at the ground.

Respondents at the state level stated that, implementing an assurance (fully supported by the government) scheme like BSKY is different from implementing the previous insurance schemes- RSBY and BKKY. While implementing insurance schemes, most of the activities were managed by the insurance company. However, in the assurance scheme-BSKY, the state authority- SHAS is responsible for implementation of various activities- fixations of package rate, empanelment process, IT management, fraud detection and settlement of claims. As per the state level respondents, seamless functioning of such nuance processes requires more skilled human resources which, at present, need to be developed at SHAS. According to most of the respondents, it may be the reason for not able to achieve the turnaround time of the claims, leading fund flow issues to private hospitals.

It was also observed that another implementing challenge was related to the packages. During the launch of the scheme, number of packages was more, and efforts have been made to minimize the number by converging similar packages. However, according to TPA and private sector respondents there are overlaps, creating confusion among the private hospitals, TPAs and the SHAS doctors. One of the TPA respondents explained the challenge with the following case: “there are varying rates for a single procedure. The private hospitals are charging the higher package rate, as it is beneficial for them. While verifying the documents, SHAS doctors raise objections to the claims. This leads to rejection of claims or reducing the claim amount”. However, recently the state government has modified the health benefit packages similar to AB-PMJAY.

According to the state level respondents, transition from insurance-based IT system to an assurance-based IT system was itself a challenge. They further pointed out that the IT platform is facing basic challenges due to database issues of earlier schemes of incorrect information of the beneficiaries loaded in the RSBY/BKKY or OSTF identification cards. This creates confusion during the claim settlement process. Respondents also stated that lack of trained and limited human resources increased the work load; hence settling claim process after fraud checks, became a time-consuming process.

At district level, the respondents stated that in most of the district hospitals, there are inadequate infrastructure and specialist doctors. Henceforth, district head quarter hospitals are forced to refer patients to private hospitals. However, the referral system has its own formal and informal limitations. As per BSKY guideline, a patient has to be referred to the medical college hospital after consulting the referral committee comprising of health personnel in the treating facility.

However, in the case of emergency, the district health officials have the authority to refer the patient without consulting the committee. According to a respondent at district level:

“In a formal referral procedure, a patient from our district hospital should be referred to the nearest medical college hospital which is around 110 KM away. The newly opened medical college is still developing its infrastructure and facilities. More so, being a hard-to-reach district, availability of specialized doctors is a challenge there. Hence, in most of the cases, the patients again have to be referred back to us only”.

Respondents also stated that political influence and preferences of the patients are playing crucial role informally in the referral system at district level. The state has also empanelled few hospitals in the neighbouring states to improve access. One district level health official pointed out: “People of our district have a personal preference to go to the city of neighbouring state which is approximately five hours journey by road. They prefer it because of the availability of specialized facilities for treatment. Often, patients prefer to go there to avoid the long waiting time in the government health facility here. Patients even use political pressure to refer the patient to the neighbouring state”.

Further, as a crucial stakeholder of the scheme -the private health sector also have some concerns with the SHAS. According to the private sector respondents, the long turnaround time for transfer of payments is one of the major reasons for which the private sector is losing interest in the scheme. The respondents unanimously agreed that their previous experience of working with the government in RSBY scheme influenced their concerns. Head of one of the prominent private hospitals in a district of Odisha stated- "I had lots of administrative as well as financial issues while dealing with the government in RSBY. Henceforth, I do not want to enter in any legal formalities with the government again, we have good and functional relations with the public facility in my block. We help each other in need".

According to the respondents, unavailability of specialist doctors is hampering the referral process and compelling the patients to seek care from neighbouring states by spending from their pocket. Further, concentration of private hospitals only in urban areas is limiting the utilization of the scheme.

DISCUSSION

This study based upon review of policy documents and qualitative interview generated evidence on how an economically developing state of India made a modest attempt to introduce an innovative scheme –BSKY, which aims at achieving UHC. We present here the findings from this study along with the socio-economic and fiscal position to explain the scope and feasibility of BSKY to provide universal health coverage to all its citizens.

The philosophy of declaring such a scheme though is well placed, the financing and provisioning gaps needs to be explained in proper perspective. The financing dimension as revealed from this study suggests that the share of public expenditure on health is low and lower level of public spending has led to higher OOPE.[7] A large part of OOPE occurs due to expenditure on medicine and diagnostic services. Though this scheme has mandated to provide free medicine and diagnostic services in public hospitals, however, the success lies in adequate financial resources and man power at the periphery health care institutions to balance between 'financing' and 'provisioning' gaps.

The service coverage indicator, another dimension of UHC, as revealed from this study shows that the state's performance is better than the national average in most of the indicators- percentage of institutional delivery, mothers who had full antenatal check-ups and births attended by skilled personal except the burden of malaria and tuberculosis. Though this appears to be a positive development, however, the service delivery is severely affected due to shortage of health infrastructure and human resources at the peripheral health care institutions. There is huge shortage of specialists at the district hospitals and below.[19] For instance, there are only 1.44 government doctors per 10,000 populations. This is worse in rural areas especially, in the districts covered by tribal population. As the state has a higher proportion of people reliant on public health facility (56.8% of OP and 72.2% IP visit occurs in public hospitals)18, these gaps affect the service delivery largely.

As revealed from this study, the scheme has some implementation level constraints related to IT system, experienced staff, multiple and overlapping packages, slow claims settlement process which is the main concern raised by private sector. The processing of claims is delayed due to lack of compliance to documentation issues. It is further observed that the processes followed for referral mechanism from public to private sector delay the service delivery which could be made seamless by integrating with the IT system and updating the capabilities of the facilities on a regular basis to ensure appropriate referral. It is also observed that since the state is learning to implement such a large scheme, it may take some more time to overcome the process related challenges.

Further, the socio-economic indicators of the state need to be discussed in order to draw inferences regarding the sustainability of BSKY. Odisha is one of the backward regions of the country largely an agrarian economy, limited industrial growth, prone to natural disasters and a higher concentration of tribal people with multiple socio-economic deprivations. However, in the recent years, the state has witnessed higher gross state domestic product (GSDP) growth compared to the national average. In the fiscal front, the state has managed its fiscal situation well in the recent past. It is noticed that the share of developmental expenditure to GSDP has remained around 16.44%, fourth highest among the comparable states of India.[25] Similarly, state's commitment to social sector development is also comparable to many states of India and the current spending is around 41% of its total government expenditure.[26] Given these developments, the announcement of BSKY is commendable as it draws from the people centered policies designed in the recent past.

Finally, learning from international and other state experiences also provide an opportunity for Odisha to draw lessons and shorten the learning curve for implementation of UHC schemes in Odisha. It is noticed that the share of public expenditure has remained substantially higher in countries that have achieved UHC or have made considerable progress in UHC. For instance, the share of government health expenditure in total government expenditure was 6.5% in Ghana, 10.4% in Mexico and 15.3% in Thailand in 2016, whereas this was around 5% in Odisha.[26] It might be difficult to provide all population of the state free health care services in public hospitals with such a low level of public expenditure. Moreover, some of these countries have designed the scheme differently unlike Odisha which aimed at providing free care to all citizens in spite of several constraints in public health system. The experiences of Thailand, Ghana or Mexico are worth mentioning here. Thailand started its UHC journey long back in 1975. It gradually started with initially

covering 30 percent of its population, extending to near poor in 1985, and inclusion of formal sector employees through contributory social security scheme and finally in 2000 it declared UCS for everyone.[3,4] Similarly, Mexico introduced publicly funded insurance for informal sector and poor where there was strongly social security for formal sector workers. It moved toward UHC by increasing public spending on health 5 % annually from 2000 to 2006.[27] Therefore, in the current form, the intention to achieve UHC through public health system though sounds unique, in practice the strategies adopted to provide coverage and financial protection may need more thought and improvements in public health system and greater private sector involvement by strategically purchasing certain services to achieve UHC.

CONCLUSION

UHC is a complex process and require designing suitable strategies with appropriate financing and provisioning mechanisms. The findings suggest that the philosophy of BSKY looks appropriate as it intends to provide free health care to all its citizens through public health systems. However, the current financing and service provisioning gaps are major challenges to achieve UHC. The states may learn from other country experiences to declare UHC phase wise covering most essential tertiary and secondary care services leading to catastrophic expenditure and then work to providing other services and gradually expanding the coverage and scope of services to even non-poor overtime based on the fiscal situation. It is suggested to cover the government employees and above poverty line population in the scheme with a co-payment system as the current level of public spending is not adequate to cover all population.

Besides addressing design issues, there are inherent implementations and process related challenges which are to be streamlined over a period of time. The claim settlement process, quality of care and management of private sector which are crucial for the effective coverage, require nuanced approaches to run the scheme smoothly. It is required to have a detail mapping of the services available at the district level and accordingly, increase supply of human resource, health infrastructure and other inputs in the public facilities. Finally, it is suggested that the state may explore the option of converging with the central government's AB PM-JAY by judiciously analysing merits and demerits.

ACKNOWLEDGEMENTS

We take this opportunity to provide our sincere thanks to all senior government and TPA officials who participated in this study process and provided valuable inputs. Mr Srinivas Nallala, a senior faculty of IIPHB public health, helped in proof reading the document and we sincerely acknowledge his contribution. We also acknowledge the financial support provided by Sir Ratan Tata Trust for the project titled "Diagnostics for Health system Transformation in Odisha" and technical support provided by HSTP team for this study.

Funding: Sir Ratan Tata Trust
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Global Monitoring Report on Financial Protection in Health, World Health Organisation; 2019. https://www.who.int/healthinfo/universal_health_coverage/report/fp_gmr_2019.pdf?ua=1. Accessed on 20th December, 2020.
2. Cotlear D, Nagpal S, Smith O, Tondon ARC. How 24 Developing Countries Are Implementing Universal Health Coverage Reforms from the Bottom Up. World Bank Group; 2015. http://documents.worldbank.org/curated/en/936881467992465464/pdf/99455-PUB- Box393200B-OUO-9-PUBDATE-9-28-15-DOI-10-1596-978-1-4648-0610-0-EPI- 210610.pdf. Accessed on 18th June, 2020.
3. Sumriddetchkajorn K, Shimazaki K, Ono T, Kusaba T, Sato K, Kobayashi N. Universal health coverage and primary care, Thailand. Bull World Health Organ. 2019;97(6):415- 422.
4. Thaiprayoon S, Wibulpolprasert S. Political and Policy Lessons from Thailand ' s UHC Experience. Obs Res Found. 2017;(174). Available at: https://www.orfonline.org/research/political- policy-lessons-thailand-uhc-experience/. Accessed June 14, 2020.
5. Massuda A, Hone T, Leles FAG, de Castro MC, Atun R. The Brazilian health system at crossroads: progress, crisis and resilience. BMJ Glob Heal. 2018;3(4):e000829.
6. Drain PK, Barry M. Fifty Years of U.S. Embargo: Cuba's Health Outcomes and Lessons. Science (80). 2010;328(5978):572-573.
7. National Health Accounts Estimates for India-2016-2017; 2018. http://nhsrcindia.org/category-detail/national-health-accounts/ODU. Accessed on 18th June, 2020.
8. VanDoorslaer E, Masseria C, Koolman X. Inequalities in access to medical care by income in developed countries. CMAJ. 2006;174(2):177-183.
9. Garg CC, Karan AK. Reducing out-of-pocket expenditures to reduce poverty: A disaggregated analysis at rural-urban and state level in India. Health Policy Plan. 2009;24(2):116-128.
10. Selvaraj S, Farooqui HH, Karan A. Quantifying the financial burden of households' out- of-pocket payments on medicines in India: a repeated cross-sectional analysis of National Sample Survey data, 1994-2014. BMJ Open. 2018;8(5):e018020.
11. Selvaraj S, Karan AK. Why publicly-financed health insurance schemes are ineffective in providing

financial risk protection. Econ Polit Wkly. 2012;47(11):60-68.
12. Budget Speech 2018-19. 2018. Available at: https://www.indiabudget.gov.in/budget2018-2019/ub2018-19/bs/bs.pdf. Accessed on 18th June, 2020.
13. National Health Mission, Department of Health & Family Welfare, Odisha G of. Biju Swasthya Kalyan Yojana. Available at: http://www.nrhmorissa.gov.in/writereaddata/Upload/Documents/BSKY.pdf. Accessed on 18th June, 2020.
14. Odisha Economic Survey 2018-19. 2020. Available at: https://pc.odisha.gov.in/Download/Economic_Survey_2018-19.pdf. Accessed on 18th June, 2020.
15. Special bulletin on maternal mortality in India 2016-18.; 2020. Available at: https://censusindia.gov.in/vital_statistics/SRS_Bulletins/MMR Bulletin 2016-18.pdf. Accessed on 18th June, 2020.
16. National family health survey (nfhs-4) 2015-16 India; 2017. Available at: http ://www.rchiips.org/nfhs. Accessed on 18th June, 2020.
17. NSS 75th Round- Key Indicators of Social Consumption in India: Health.; 2019. http://www.mospi.gov.in/sites/default/files/publication_reports/KI_Health_75th_Final.pdf. Accessed on 18th June, 2020.
18. Rout SK. Public Healthcare Systems in Odisha- A Brief Review. 2017.
19. Karan A, Negandhi H, Nair R, Sharma A, Tiwari R, Zodpey S. Size, composition and distribution of human resource for health in India: new estimates using National Sample Survey and Registry data. BMJ Open. 2019;9(4):e025979.
20. Rout. Odisha State health Accounts 2013-14. 2016.
21. Directorate of Agriculture and Food Production, Odisha G of. Biju Krushak Kalyan Yojana (BKKY). https://bkky.nic.in/. Accessed on 18th June, 2020.
22. Panda B, Rout HS. Extent of use of the government sponsored health insurance schemes: evidence from rural Odisha. Indian. J Econ Dev. 2018;6(10).
23. Patel G, Patel K. Rastriya swasthya bima yojana and health equity: user experiences and reflections from Odisha. In: BMJ Global Health. BMJ. 2016;1:A19.2-A20.
24. Pradhan Mantri Jan Arogya Yojana (PM-JAY). Official Website Ayusham Bharat Yojana. National Health Authority. Available at: https://pmjay.gov.in. Accessed on 18th June, 2020.
25. Odisha Economic Survey of 2019-20. Available at: https://budget.odisha.gov.in/economic-survey. Accessed on 18th June, 2020.
26. World Health Statistics 2019 Monitoring Health for the SDGs. 2019. Available at: ttps://apps.who.int/iris/bitstream/handle/10665/324835/9789241565707-eng.pdf?ua=1. Accessed on 18th June, 2020.
27. The Global Push for Universal Health Coverage, World Health Organization. 2014;1-2. Available at: https://www.who.int/health_financing/GlobalPushforUHC_final_11Jul14-1.pdf. Accessed on 18th June, 2020.

Cite this article as: Rout SK, Ghosh U, Parhi A, Chandrashekhar S, Kadam SM. State led innovations for achieving Universal health coverage (UHC) in a low resource setting Odisha, India: opportunities and challenges. Int J Community Med Public Health 2021;8:2338-45.