



## Assessment of knowledge of ASHA workers and their skill development in imparting Ante Natal care and post Natal Care in two districts of a Hilly State

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Type of Publication: Original Research Paper

Conflicts of Interest: Nil

### Abstract

**Aims & Objectives:** To assess the effect of knowledge & skill development of ASHAs on Maternal and Newborn care.

**Methods:** cross- sectional study in selected blocks of two districts to assess knowledge and skill developments of ASHA workers regarding ANCs & PNCs.

**Results:** In our study ASHA workers of both Districts, 100% of them were aware of knowledge about Early Registration, 99.3% ASHA workers of Solan District and 100% from District Mandi knew how to calculate EDD. 91.4% of ASHAs Solan and 94.1% of District were able to do nutritional counselling and detecting high risk pregnancy. Amongst them 69.7% & 57.1% of them were confident to record events during in Solan and Districts. Regarding skill of resuscitation of newborn 44.1% of ASHA were aware in Solan and corresponding figure in Mandi was 27.1%. Post-natal visits of ASHA workers, being an incentive based approach 100% ASHA workers from both Districts under study were aware of it. Regarding breast feeding practices 82.2% of ASHA workers of Solan and 91.2% of ASHA workers of Mandi were having adequate knowledge. 99.3% of ASHA workers of Solan and 99.4% of ASHAs of admitted their confidence about how to manage low birth babies at home.

**Conclusions:** In this study it was found that ASHAs were having basic knowledge about ANC and PNC still there skill development to combat emergency obstetric complications is an utmost priority along with gap analysis.

**Keywords:** ASHA, EDD, ANC. resuscitation & PNC

### Introduction

Great efforts have been put by government at community and facility based interventions to upgrade maternal and newborn care after 2010. This study is being designed to look into the various parameters to compare impact of skill development of frontline health workers i.e-Accredited Social Health Activist (ASHA). State has started ASHA programme in 2014-15 in Himachal Pradesh.<sup>[1]</sup> Role

of ASHA's in Antenatal Care and Postnatal Care includes early registration, conducting delivery in emergency conditions, neonatal resuscitation in case of home deliveries, home based post-natal visits, helping ANM/MPW in detection of high risk pregnancy and referral of sick new born to higher facilities, helping in Child Death Review (CDR) & Maternal Death Review (MDR). The Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) has been

launched by the Ministry of Health & Family Welfare (MoHFW), Government of India for antenatal care, free of cost, universally to all pregnant women on the 9th of every month. It was introduced by Prime Minister on 31st July 2016.<sup>[2]</sup>

Not many studies have been carried out on this topic especially in Himachal Pradesh so this will prove fruitful. There are few approaches adopted by Government of India to improve overall health and wellbeing of mother and child. ASHA workers training module 6 and 7 are specially designed for maternal and newborn care.<sup>[3]</sup> Marvelous efforts have been put in skill development of ASHAs and enhancement of their knowledge by frequent trainings and workshops. Job profile of ASHA's is incentive based and they impart their duties to their maximum efficiency. Home Based Newborn Care (HBNBC) has great assets to detect sick newborn, low birth weight babies and detect high risk pregnancies along with postnatal complications. The current study invites the scope of access the impact of schemes and strategies directed towards training of health care professionals who act as back bone in delivering Maternal and Child Health services at community level. ASHA has good rapport with adolescent girls, antenatal mothers and postnatal mothers which will prove a great advantage to impart knowledge and health care delivery.

**Materials And Methods**

Himachal Pradesh has 12 districts out of which Solan and Mandi Districts were selected by random technique. As per Census-2011 the population of Himachal Pradesh is 6,864,602. Population of District Solan and Mandi is 576670 and 999777

**Results**

**Table 1: Assessment of knowledge of ASHA workers regarding early registration, Pregnancy testing and calculating Expected Date of Delivery (EDD).**

Total No. of ASHA Workers Participated		Solan (N=152)		Mandi (N=170)	
S.No.	Parameters	N	%	N	%
1.	Knowledge about importance of Early Registration	152	100	170	100
2.	Knowledge about Pregnancy testing from Nischay home pregnancy card	152	100	170	100
3.	Knowledge about calculating Expected Date of Delivery(EDD)	151	99.3	170	100

respectively.<sup>[4]</sup> After obtaining the list of all Healthcare Blocks from office of Chief Medical Officer (CMO), 3 blocks were chosen from each of these Districts using lottery method. Health Blocks chosen from Solan District were Arki, Chandi and Dharpur and with similar technique blocks chosen from Mandi District were Padhar, Katuala and Ratti.

**Study design:** cross-sectional study.

**Study Period:** 1<sup>st</sup> January 2019 to 31<sup>st</sup> December 2020

**Inclusion Criteria:** All ASHA workers who gave informed consent during their monthly meetings at Block headquarters were included in study.

**Exclusion Criteria:** All Health Blocks except chosen blocks were excluded in study.

**Sampling Technique:** All ASHA workers who were present during their monthly meetings at Block headquarters of their concerned blocks were given Questionnaire. Data was collected after explaining them purpose of study and obtaining informed consent. ASHA workers were explained questions in their local language.

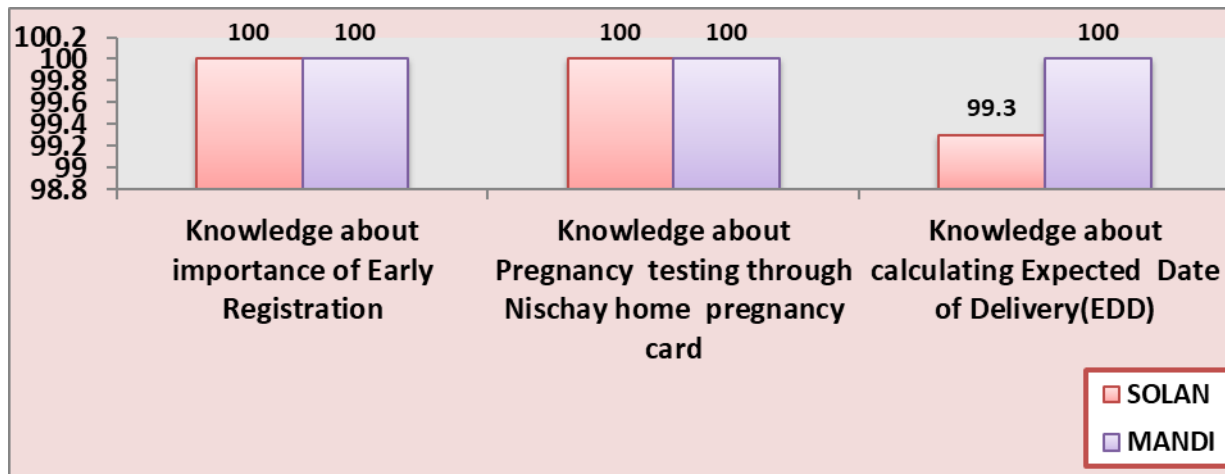
**Study Tools:** It will be collected from Pre tested and pre designed Questionnaires for ASHA workers.

**Statistical Analysis:** Data collected will be analyzed with the help of Statistical Methods.

**Ethical consideration:** After getting the approval from Institutional Ethics Committee, the research work will be started. Informed consent will be taken from the participants in study and there will be no financial burden on the participants.

Table 1/Fig. 1 reflects knowledge of ASHA workers regarding Ante Natal care. ASHA workers have been taught in detail regarding how to provide Maternal and Newborn care in their study Module 6 and 7 by competent tutors. Along with this providing antenatal and postnatal care is an incentive base approach. After evaluating ASHA workers of Solan and Mandi Districts it was concluded that 100% of them were aware of knowledge about Early Registration, pregnancy testing & 99.3% ASHA workers of Solan District and 100% from District Mandi knew how to calculate EDD.

**Fig. 1: Depicting knowledge of ASHA workers regarding early registration, Pregnancy testing and calculating Expected Date of Delivery (EDD)**

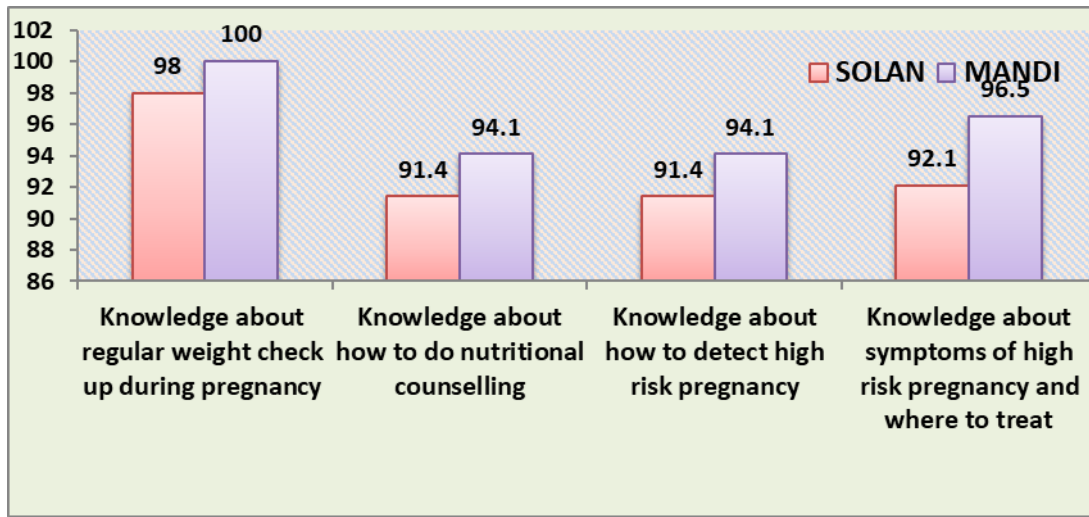


**Table 2: Assessment of ASHA workers regarding Ante Natal Care**

Total No. of ASHA Workers Participated		Solan (N=152)		Mandi(N=170)	
S.No.	Parameter	N	%	N	%
1.	Knowledge about regular weight checkup during pregnancy	149	98	170	100
2.	Knowledge about how to do nutritional counselling	139	91.4	160	94.1
3.	Knowledge about how to detect high risk pregnancy	133	91.4	160	94.1
4.	Knowledge about symptoms of high risk pregnancy & where to treat	140	92.1	164	96.5

Table 2/Fig. 2 predicts knowledge of ASHA workers about regular weight checkup during pregnancy which was 98% in ASHA workers of Solan District and 100% of ASHA workers knew it. 91.4% of ASHAs Solan District and 94.1% of Mandi District were able to do nutritional counselling and detecting high risk pregnancy. At the same time 92.1% of ASHAs of District Solan and 96.5% of District Mandi were aware of symptoms of high risk pregnancy and counsel pregnant women where to get treated.

**Fig. 2: Depicting knowledge of ASHA workers regarding regular weight checkups, nutritional counselling, detection of high risk pregnancy and its management**

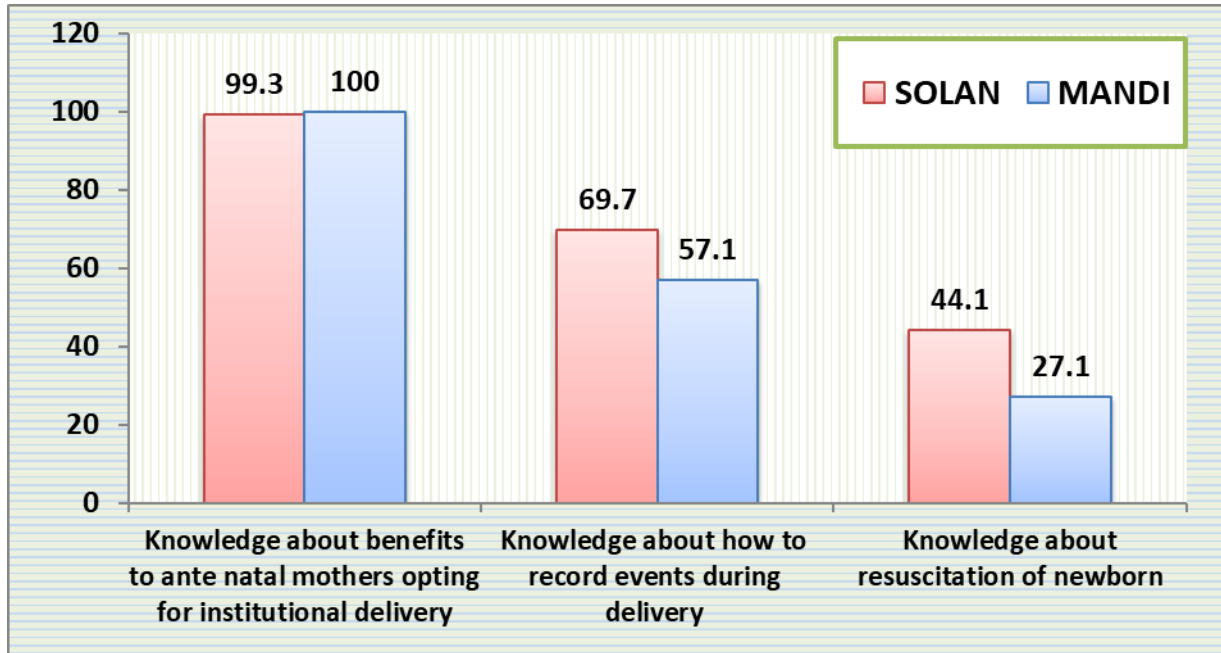


**Table 3: Assessment of knowledge of ASHA workers regarding care during delivery**

Total No. of ASHA Workers Participated		Solan(N=152)		Mandi (N=170)	
S. No.	Parameters	N	%	N	%
1.	Knowledge about benefits to ante natal mothers opting for institutional delivery	151	99.3	170	100
2.	Knowledge about how to record events during delivery	106	69.7	97	57.1
3.	Knowledge about resuscitation of newborn	67	44.1	46	27.1

Table 3/ Fig. 3 enlightens the knowledge of ASHA workers regarding counselling pregnant women corresponding to benefits of institutional delivery where 99.3% ASHAs were acquainted regarding it in District Solan and 100% were in district Mandi. Amongst them 69.7% & 57.1% of them were confident to record events during in Solan and Mandi Districts (H.P). Regarding skill of resuscitation newborn 44.1% of ASHA were aware in District Solan and corresponding figure in District Mandi was 27.1%.

**Fig. 3: Depicting assessment of knowledge of ASHA workers regarding care during delivery.**

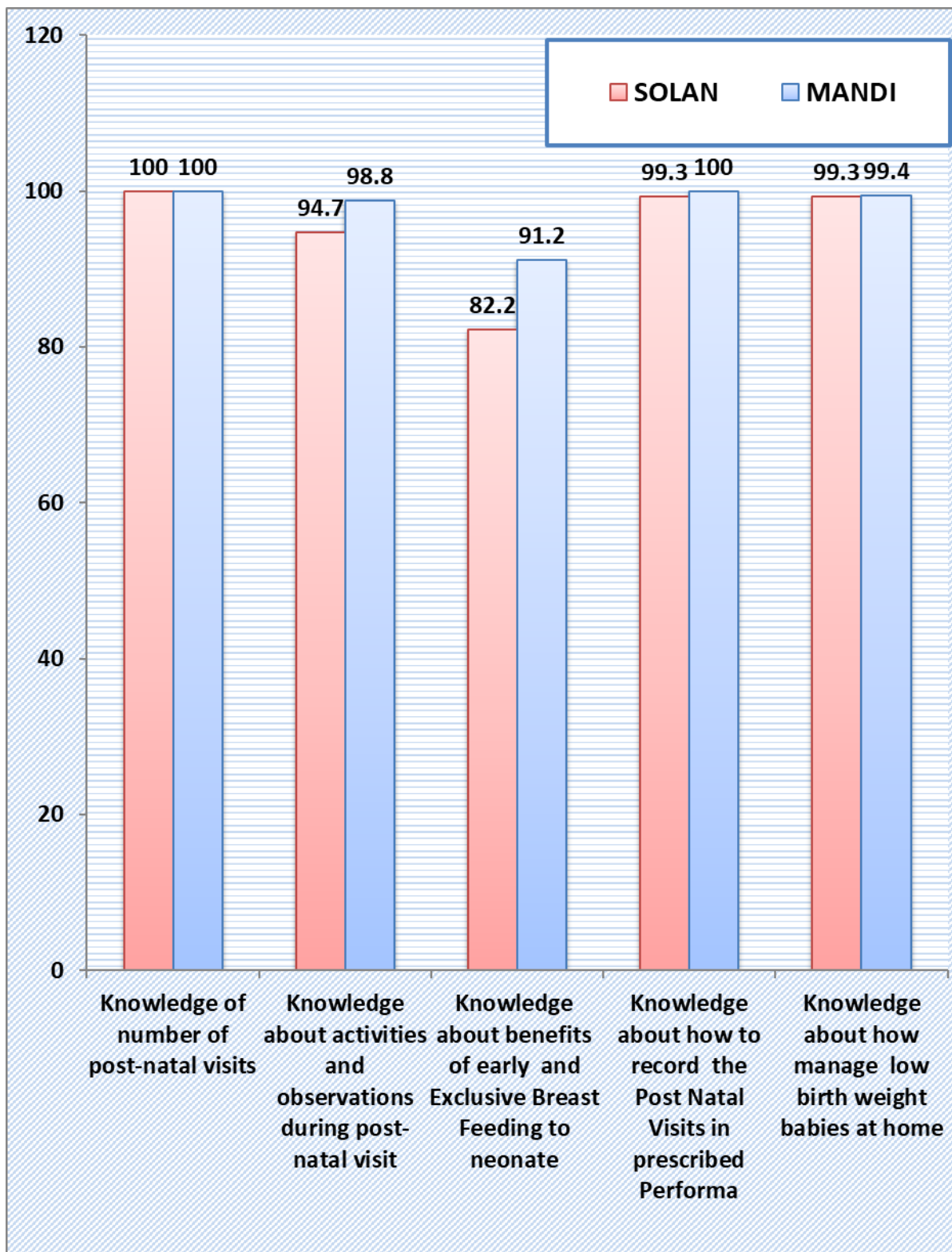


**Table 4: Assessment of knowledge of ASHA workers regarding Post Natal Care**

Total No. of ASHA Workers Participated		Solan (N=152)		Mandi(N=170)	
S. No.	Parameters	N	%	N	%
1.	Knowledge of number of post-natal visits	152	100	170	100
2.	Knowledge about activities and observations during post-natal visit	144	94.7	168	98.8
3.	Knowledge about benefits of early and Exclusive Breast Feeding to neonate	125	82.2	155	91.2
4.	Knowledge about how to record the Post Natal Visits in prescribed Performa	151	99.3	170	100
5.	Knowledge about how to manage low birth weight babies at home	151	99.3	169	99.4

Table 4/ Fig. 4 expresses the number of post-natal visits of ASHA workers, being an incentive based approach 100% ASHA workers from both Districts under study were aware of it & 94.7% ASHA workers of District Solan and 98.8% from District Mandi were having complete knowledge regarding it. With respect to exclusive breast feeding to neonate, 82.2% of ASHA workers of District Solan and 91.2% of ASHA workers of District Mandi were having adequate knowledge about it. As its being an incentive based approach all ASHA workers are expected to fill the given Performa during their visit to post-natal mothers and newborn, 93.3% of ASHA workers of District Solan and 100% ASHAs of District Mandi were equipped with knowledge to do it confidently. 99.3% of ASHA workers of District Solan and 99.4% of ASHAs of District admitted their confidence about how to manage low birth babies at home.

Fig. 4: Depicting assessment of knowledge of ASHA workers regarding Post Natal Care.



**Discussion**

In our study we found all ASHA workers of Solan and Mandi Districts were aware of knowledge about

Early Registration. In a similar study done by Sugandha B.K *et al*, in Mysuru Taluk, Karnataka early identification of pregnancy was correctly identified by 76.3% of the respondents.<sup>[5]</sup> All ASHA

workers from Solan and Mandi districts of H.P were provided with home pregnancy testing card Nischay and 100 % of them were confident to read the results of pregnancy testing card. 99.3 % ASHA workers of Solan District and 100 % from District Mandi knew how to calculate EDD. Its observed their study that Asha worker's knowledge about ideal weight gain during pregnancy per month was correctly known by only 34.2% of the participants, About 60% of the respondents could identify all the laboratory investigations done during ANC visits to detect high risk pregnancies. In present study 100% ASHA workers from both Districts under study were aware of PNC visit schedule. It was observed that 94.7 % ASHA workers of District Solan and 98.8 % from District Mandi were having complete knowledge regarding multiple activities like weighing newborn, measuring temperature and observing any complication to post-natal mothers and detecting sick newborn. In similar study Sugandha B.K *et al*, correct knowledge among ASHA workers about cord care was 97.6%. Among them 90.8% had correctly identified the scheduled of PNC visits.<sup>[5]</sup>

In our study knowledge of ASHA workers about regular weight checkup during pregnancy was 98 % Solan District and 100 % of ASHA workers in Mandi district. 91.4 % of ASHAs of Solan District and 94.1 % of Mandi District were able to do nutritional counselling and detecting high risk pregnancy. At the same time 92.1 % of ASHAs of District Solan and 96.5% of District Mandi were aware of symptoms of high risk pregnancy and subsequent counsel pregnant women where to get treated. Kumar *et al*, conducted a descriptive, cross-sectional, community based study regarding utilization and perception regarding Janani Suraksha Yojana (JSY) in a rural area at Agra. They interpreted that nearly half (53.25%) of the mothers had an institutional delivery and were eligible for the JSY benefits. Postnatal home visits by ASHAs were done in 48% of home and 100% of institutional deliveries. Nearly half 48.09% of the pregnant women were benefited by free transport facility under JSY. Although all of the health care providers perceived JSY as benefit for improving maternal health, 44% of them had the notion that cash incentives under JSY can have a negative effect on family planning practices.<sup>[6]</sup> Grover, *et al* conducted a study in 2014-2015 under Community Health Center, Dubaldhan in block Beri of Haryana, concluded that

most of the new born babies were not getting good quality of home based newborn care. They found that recent training attended by ASHA worker was highly associated with providing good quality newborn care to babies by ASHA workers.<sup>[7]</sup> Ipsa Mohapatra, *et al* carried out cross-sectional study in the city of Bhubaneswar. Education profile revealed that 81.87% ASHA and AWW were voted maximally as informants regarding benefits of the programme (85.49% vs 79.79%). Most of them 97% (187) knew that money was being given to the mother delivering in health facilities for institutional deliveries; but only few, 17% (32) were aware that certain private hospitals are approved for free delivery services. As high as 94.65% were registered in government facilities and rest 10(5.35%) in private. 91% (162) of whom delivered in government institutions & 81.5% (145) beneficiaries had made arrangement for transportation to health facility at their own cost. Around 88.20% were escorted by ASHA during delivery. All of the babies born had been weighed. Low birth weight was reported as nearly 25% in this sample and 73.57% of women had their postnatal checkup (PNC).<sup>[8]</sup>

In current study 99.3% ASHA workers of Solan district and 100% of ASHAs from Mandi district were counselling pregnant women regarding benefits of institutional delivery. Amongst them 69.7% & 57.1% of them were confident to record events during pregnancy in Solan and Mandi Districts respectively. Regarding skill of resuscitation newborn 44.1% of ASHA were aware in District and corresponding figure in District Mandi was 27.1 %. In a study resembling our present study Sharad B. Pandit, *et al* did an assessment about knowledge and practices regarding Home Based Newborn Care (HBNBC) were done. The 5.41% of the ASHA had poor, 83.78% had average and 10.81% had good level of knowledge about HBNBC.<sup>[9]</sup>

In another study resembling present study Khanna R, *et al* did a study in 3 districts Alwar, Bharatpur and Dausa in Rajasthan found that more than 80% ASHAs knew Post-natal care, birth preparedness, safe delivery, hygiene, sanitation and 61% ASHAs had Correct Knowledge on danger sign detection. In their study they found 80% were ASHAs providing counselling on Exclusive Breastfeeding feeding 88% ASHAs were providing counselling on complementary feeding.<sup>[10]</sup> In our study regarding

early breast feeding & exclusive breast feeding, 82.2% of ASHA workers of District Solan and 91.2 % of ASHA workers of District Mandi were having adequate knowledge about it.. To fill the given Performa of PNC, visit 93.3 % of ASHA workers of District Solan and 100 % ASHAs of District Mandi were equipped with knowledge to do it confidently. How to manage low birth babies, 99.3 % of ASHA workers of District Solan and 99.4 % of ASHAs of District Mandi admitted their confidence in this aspect. Agarwal S, *et al* conducted a study using Indian Human Development Survey data from 2011 to 2012, and assessed the association between individual and cluster-level exposure to ASHA. Where it was noticed that exposure to the ASHA is associated with an increased probability of women receiving at least one ANC and SBA. In terms of numbers of services, exposure to ASHA accounts for a 12% increase in women receiving at least some of the services, and 8.8% decrease in women receiving no services.<sup>[11]</sup>

### Conclusion:

In present study knowledge of ASHA workers about regular weight checkup during pregnancy was 98% in ASHA workers of Solan District and 100% of ASHA workers Mandi District. We found that 91.4% of ASHAs Solan District and 94.1% of Mandi District were able to do nutritional counselling and detect high risk pregnancy. At the same time 92.1% of ASHAs of District Solan and 96.5% of District Mandi were aware of symptoms of high risk pregnancy and counsel pregnant women where to get treated.

In present study ASHA workers were counselling pregnant women regarding benefits of institutional delivery where 99.3% ASHAs in District Solan and 100% were in district Mandi were doing it. Amongst them 69.7% & 57.1% of them were confident to record events during delivery in Solan and Mandi Districts (H.P). Regarding skill of resuscitation newborn 44.1% of ASHA knew it in District Solan and corresponding figure in District Mandi was 27.1%.

Enhancement of IEC activities by health care professionals regarding breast feeding practices,

nutrition counselling, importance of institutional deliveries in managing complications, family planning, hygiene, celebrating VHSND, coordination with ICDS workers & Panchayati Raj Institutions (PRI) will prove a great aid in order to further strengthen Maternal and Newborn care.

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