

Request for Proposal (RFP)
for Procuring Equipments and Consumables for Clinical, Anthropometric
and Biochemical (CAB) Tests in
National Family Health Survey (NFHS-5)
2018-2019

Bid Document



(स्थापना / Established in 1956)
बेहतर भविष्य के लिए क्षमता निर्माण
Capacity Building for a Better Future

International Institute for Population Sciences
(Deemed University)
Govandi station road, Deonar, MUMBAI-400088
Tel: 91-22-42372400; Fax: 91-22-25563257

Key Events and Dates

1	Tender Inviting Authority	International Institute for Population Sciences, Govandi Station Road, Deonar, Mumbai-400 088
2	Job Requirement	Procuring Equipments and Consumables for Clinical, Anthropometric and Biochemical (CAB) Tests
3	Announcement of Bids for NFHS-5	May 1st 2018
4	Pre-Bid Meeting	May 16th 2018 at NIHFW, New Delhi during 2:30 pm -5:30 pm
5	Last date for submission of bid	May 30th 2018
6	Opening of bids	June 5th 2018
7	Technical evaluation and Financial evaluation	To be announced through IIPS website
8	Submission of Performance Security, Signing of Contract and submission of bank guarantee	To be announced through IIPS website

Checklist of eligibility for opening of bid

Sl No.	Items	Tick
1	Certificate of Registration/License	
2	PAN Card	
3	Processing fees* of Rs. 10,000/-	
4	EMD* for Equipments and consumable are given in Annexure A	

*Should be paid through Demand Drafts drawn in favour of "Director, IIPS" payable at Mumbai.

Note: It is mandatory for organization/bidder to submit one combined bid document, specifying all the details and specifications if the organization or bidder bidding for more than one biomarker item instead of providing separate bid for each of the items.

Issues, observations and suggestion obtained during pre-bid conference

Sl No.	Issues, observations and suggestion	Remark
1		
2		
3		

Bid for Procuring Equipments and Consumables for Clinical, Anthropometric and Biochemical (CAB) Tests in National Family Health Survey (NFHS-5)

1. INTRODUCTION

1.1 Purpose of Request for Proposal (RFP)

The purpose of this Proposal is to procure the CAB equipments and consumables required for conducting the fifth round of National Family Health Survey (NFHS)-5 in India during 2018-19

1.2: Background

The National Family Health Survey (NFHS) in India was initiated in the early 1990s with the first NFHS being conducted in 1992-93. Since then, India has successfully completed four rounds - NFHS-2 in 1998-99, NFHS-3 in 2005-06 and NFHS-4 in 2015-16. All four rounds of the survey were conducted under the stewardship of the Ministry of Health and Family Welfare (MoHFW), Government of India, with the International Institute for Population Sciences (IIPS), Mumbai, as the nodal agency and technical assistance provided by the United States Agency for International Development (USAID) through ICF Macro (now called ICF)¹. USAID has been the primary funding agency for the NFHS surveys, but in the two most recent surveys (NFHS-3 and NFHS-4), other development organizations, such as DFID, the Bill and Melinda Gates Foundation, UNICEF, UNFPA, the MacArthur Foundation, as well as the Government of India, also supported the surveys in a major way. The main objectives of the NFHS programme have been to strengthen India's demographic and health database by providing information that is both reliable and relied upon; to strengthen the survey research capabilities of Indian institutions to provide, analyse, and disseminate high quality data; and to anticipate and meet the country's needs for data on emerging health and family welfare issues.

In 2018-2019, India will implement the fifth round of the National Family Health Survey (NFHS-5). Like its predecessors, NFHS-5 will be conducted under the stewardship of the Ministry of Health and Family Welfare, coordinated by the International Institute for Population Sciences (IIPS), Mumbai, and implemented by a group of survey organizations and Population Research Centres, following a rigorous selection procedure. Technical assistance for NFHS-5 will be provided by ICF, USA.

2. SPECIFIC OBJECTIVES AND SCOPE OF NFHS-5

Each successive round of the NFHS has had two specific goals: a) to provide essential data on health and family welfare required by the Ministry of Health and Family Welfare and other agencies for policy and programme purposes, and b) to provide information on important emerging health and family welfare issues. To meet the first of the two objectives NFHS-5, like NFHS-1, NFHS-2, NFHS-3, and NFHS-4 will:

Provide estimates of the levels of fertility, infant and child mortality, maternal and child health, and other health and family welfare indicators by background characteristics at the national and state levels; and Measure trends in health and family welfare indicators over time at the national and state levels. Similar to the NFHS-4, NFHS-5 will also provide information on several emerging issues including:

¹ICF International implements the USAID-supported MEASURE DHS Project, and has the experience of providing technical assistance to more than 300 surveys in more than 90 countries.

Perinatal mortality, high-risk sexual behaviour, safe injections, tuberculosis, and malaria;
Non-communicable diseases;
Use of emergency contraception; and
Disability

As was in case of NFHS-4, which is being considered as a benchmark in India's quest to achieve the Sustainable Development Goals (SDGs) by 2030, the scope of NFHS-5 has been expanded substantially. Some salient features of NFHS-5 are:

In addition to the 29 states, NFHS-5 will also cover all the seven Union Territories (UTs) was done as in NFHS-4. Similarly, NFHS-5 will provide estimates of most indicators at the district level for all 707 districts in the country as on March 1, 2017.

Given the need to estimate most demographic and health indicators at the district level, the NFHS-5 sample size is expected to be approximately 610,000 households (in all 707 districts). As the survey will elicit information (using Household, Woman's, Man's, and Biomarker questionnaires) from all women age 15-49 and men age 15-54 in a subsample of households, it is estimated that NFHS-5 will yield a total sample of 6,68,622 women aged 15-49 years, and 91,200 men aged 15-54 years. In these households information on about 265,000 children below age 5 will be also collected in the survey.

Data will be collected using Computer Assisted Personal Interviewing (CAPI) on mini-notebook computers. CAPI eliminates the need for a separate data entry operation and for data editing in the field. With essential data consistency checks built into the programming, data are also likely to be of better quality. Additionally, data will be sent to the central office on a daily basis, enabling fast feedback to teams on quality or other concerns, as required. It is expected that about 17-18 field agencies will be selected to implement the data collection.

Anaemia testing and height and weight measurements for women age 15-49, men age 15-54 and children age under 5 years will also be included in NFHS-5. All related estimates will be provided at the district level.

Like in NFHS-4, other components included in the domain of clinical, anthropometric and biochemical testing (CAB) in NFHS-5 are blood glucose and hypertension measurements with estimates to be provided at the district level.

In addition, NFHS-5 will be collecting finger-stick blood to produce dried blood spots (DBS) from a subsample of respondents for laboratory testing of malaria, HbA1C and vitamin D3. These tests will provide an opportunity to estimate the community based burden of malaria and antimalarial drug resistance in high malaria endemic states, as well as at the national level. It will also provide information on the extent of Vitamin-Deficiency in the population and level of diabetes control at the national level among NFHS-5 respondents, who report that they have diabetes.

Data on waist and hip circumference will be collected for the first time in NFHS-5., which will allow these measures to be compared to the body mass index (BMI) as predictors of chronic diseases. This will not only help build a large health database for monitoring of health related programmes in the country but also provide information for public health researchers and programme implementers to prioritize and develop effective health interventions.

As with anaemia, testing of blood glucose and blood pressure will be conducted in the field using

portable equipment. The HemoCue instrument will be used for anaemia testing, and the similar type of battery-operated portable glucometers as was used in the NFHS-4, will be used for blood glucose testing. Retractable lancets and all blood-contaminated materials will be disposed of in a biohazard bag according to an established protocol. Only medical or other personnel with specific training on the procedures and on universal precautions regarding blood-borne pathogens will be engaged for conducting the anaemia and blood glucose tests and in the collection of DBS samples.

3. INTRODUCTION OF CAB

CAB stands for Clinical, Anthropometric and Biochemical tests which are integrated in NFHS-5, to collect information on nutrition and health. A biomarker may be thought of as a characteristic that can be independently measured and evaluated as an indicator of normal biologic processes, pathogenic processes, or pharmacologic response to a therapeutic intervention. Biomarker measurements can serve as diagnostic tools to identify diseases in their early stages and can be used as surveillance tools to track changes in disease patterns or to evaluate intervention programs. In population-based surveys, biomarkers help assess the prevalence or occurrence of diseases or health conditions and can also be used at a macro level to measure the long-term effect of policies and programs. In NFHS, biomarkers are measured in order to report levels of specific diseases and conditions at the population level. Specific to NFHS-5, the following biomarkers will be measured: Haemoglobin, random blood glucose, blood pressure, height/length & weight, waist and hip circumference, along with test for iodization of salt.

As with haemoglobin measurement, testing of these CAB components in the field will be conducted using portable equipment. The HemoCue instrument will be used for haemoglobin measurement and battery-operated portable Glucometers will be used for random blood glucose testing. Lancets and all blood-contaminated materials will be disposed of in a biohazard bag according to an established protocol. Only paramedical or other personnel with specific training on the procedures and on universal precautions regarding blood-borne pathogens will be used for conducting the haemoglobin and random blood glucose testing and preparing dried blood spot (DBS) for testing of HbA1c, Vitamin D3 and Malaria related testing.

4. SURVEY ORGANIZATION

NFHS-5 is being conducted at the request of the Ministry of Health and Family Welfare which has a primary role in the planning for the survey and in the analysis and dissemination of the survey results.

The International Institute for Population Sciences (IIPS) will serve as the implementing agency for NFHS-5. IIPS will take responsibility for operational matters including planning and conducting fieldwork, processing of collected data and organizing the writing and distribution of reports. IIPS will furnish the necessary central office space for survey personnel and will undertake to secure transport for the data collection activities. Staff from IIPS will be responsible for overseeing the day-to-day technical operations including recruitment and training of field and data processing staff and the supervision of the office and field operations.

5. DETAILS OF EQUIPMENTS AND CONSUMABLES FOR CAB MEASUREMENTS & TESTS

General Conditions:

- i. The proposal, along with all the correspondence and documents exchanged by the bidder and IIPS, shall be written in the English language.
- ii. **Amendments to the tender:** IIPS reserves rights to amend any of the tender conditions or a part thereof before the last date for the receipt of the tender, if necessary. Amendments, if any, would be placed on the Institute's website (www.iipsindia.org). The decision of extending the due date and time for the submission of tender documents on the account of amendments will be at the sole discretion of IIPS.
- iii. IIPS reserves the right to cancel the RFP at any stage without citing any reason.
- iv. **Earnest Money Deposit (EMD):** The bidders should furnish an Earnest Money Deposit (EMD) for Biomarker equipments & consumables as specified in the Annexure A. Each bid submitted by the bidding by means of Demand Draft/ Banker Cheque drawn on any Nationalized Bank / Scheduled Bank payable in favor of the "Director IIPS". The Demand Draft/Banker Cheque for the earnest money shall be put in the envelope for the eligibility criteria as the Technical and Financial Bid would be opened only in respect of those bidders who qualify according to the prequalification criteria. Cheque, Cash payment, Money Order, Fixed deposit etc. will not be accepted as EMD. The Tenders received without the Earnest Money Deposit will be summarily rejected. The Earnest Money Deposit will be refunded after the completion of the selection process as per the rule 170 of GFR 2017. The amount remitted towards Earnest Money Deposit is liable to be forfeited in the case the bidder retracts its offer after submission of the tender or after the acceptance of the offer by IIPS or fails to sign the Contract or to remit the Security Deposit. No interest will be payable by the IIPS on the Earnest Money Deposited/remitted.
- v. **Performance Security:** The successful supplier should furnish, Performance Security of 5% of the value of the contract as specified in the bid documents prior to signing contract with IIPS by means of account payee Demand Draft, fixed deposit receipt or Bank guarantee from any of the commercial banks or payment online in an acceptable form, safeguarding the purchaser's interest in all respects drawn on any Nationalized Bank / Scheduled Bank payable in favour of the "Director IIPS" on award of contract. The total FOB/CIF value as the case may be, valid until the completion of the warranty period of the equipment.
- vi. Each Bidder has to provide Processing Fees of **Rs.10,000/-** (Non-Refundable) for each bid by means of Demand Draft/Banker Cheque drawn on any Nationalized Bank / Scheduled Bank in favour of the "Director IIPS" payable at Mumbai. The Demand Draft/Banker Cheque for the earnest money shall be put in the envelope for the eligibility criteria as the Technical and Financial Bid would be opened only in respect

of those bidders who qualify according to the prequalification criteria.

- vii. No proposal shall be accepted unless it is properly sealed. The documents should be sent by speed post/registered post/courier or hand delivered. IIPS will not be responsible for any postal delay.
- viii. If the envelope is found to be open, not sealed and not marked as instructed above, IIPS will not be responsible for misplacement or premature opening of the proposal submitted. Any proposal opened prematurely due to this cause shall be rejected.
- ix. The bidder is advised to attach any additional information that is considered necessary to establish its capabilities. No further information will be entertained after submission of application unless it is required by IIPS. The IIPS, however, reserves the right to call for additional information and clarification on information submitted by the bidders.
- x. Proposals must be received by IIPS, at the address specified not later than the date and time specified in the Invitation of RFP. In case the specified date for the submission of proposal is a declared holiday at the IIPS, the same will be received on next working day with the same specified time. Proposals received after the due date and time specified will automatically be rejected.
- xi. Submission of tender: Sealed tenders received up to 5:30 PM of **May 30th 2018** will be taken up for opening. Tenders received after specified date and time will not be accepted. IIPS reserves the right to disqualify any of the tenders in case it is not satisfied with the documents furnished or otherwise, without assigning any reasons thereof. Any efforts by an agency to influence the IIPS personnel or representative on matters relating to bids under consideration in the process of examination, clarification, evaluation and comparison of bids and in decision concerning award of Contract, shall result in the rejection of the bidder's bid and also lead to blacklisting of the organization.
- xii. The bidder shall submit in a sealed envelope three (3) copies of all the bid documents. All copies of the bids (One Original and Two Duplicates) must consist of the following:
 - a. Eligibility criteria as per the criteria given in this document along with the requisite Earnest Money Deposit (EMD) (Refundable) for Biomarker equipments /equipments & consumables for Biomarker Consumables in a separate envelope as given in the Annexure A.
 - b. Technical proposal, superscribing on the top right hand side of the cover envelope as Technical Bid and Biomarkers equipments and/or consumables for which the technical bid is being submitted.
 - c. Financial proposal superscribing on the top right hand side of the cover as Financial Bid and the Biomarkers equipments and/or consumables for which the financial bid is being submitted.
 - d. For each of the bid application, a non-refundable processing fee (as per processing fees slab mention above) by DD in favour of Director, IIPS payable at Mumbai should be submitted

- with Bid document.
- e. For each of the Bid application, the envelopes containing the Technical and Financial Proposals are to be enclosed in separate envelope, clearly superscribing the original/duplicate copy, contents of the envelope of the enclosed proposals.
 - f. All the pages of the Financial Proposal shall be duly signed by the authorized signatory of the bidder in ink before submission. Corrections, if any, shall be countersigned.
 - g. Failure to provide and/or comply with the required information, instructions, etc. incorporated in these Bid documents may result in rejection of its tender.
- xiii. Failing to execute the Contract within the prescribed period may result in termination of the Contract and award of the same to other agency/agencies at the risk and cost of the bidder.
 - xiv. The person to sign the Contract shall be duly authorised.
 - xv. Arbitration: Arbitration proceeding shall be conducted in accordance with procedure of the Arbitration and Conciliation Act 1996, of India.
The decision of the arbitrator shall be final and binding on both parties. The place of Arbitration shall be **Mumbai**.
 - xvi. Good Manufacturing Practices (GMP), WHO-GMP, or equivalent international quality certification for the product applied for is essential. Preference will be given to WHO-GMP certificate.
 - xvii. IIPS reserves the right to choose, accept or reject any or all request /offers, in full or part, reduce or increase the quantity, spilt the order, criteria of requirement at any stage without giving any notice or assigning any reason. The decision of the Director, IIPS in this regard shall be final.
 - xviii. All bidders will have to submit at least one sample of each equipment and ten samples of each consumable applied, for verification and approval by the committee for evaluation of technical specifications.
 - xix. Failure to submit samples within the prescribed timeline will result in disqualification of the agency.
 - xx. Along with the samples, each vendor will have to submit a declaration that if finally selected, they will supply the same quality of the product (model with same technical specifications) for the entire procurement. Failure to do so will lead to disqualification of the agency supplying the allocated items.
 - xxi. For all the supplies and equipments, those items which have been successfully used earlier in large scale surveys in India or outside will be given preference.
 - xxii. Cost of travel and stay of the officials for attending pre-bid meeting/technical or financial bid opening will be borne by the bidder.
 - xxiii. Hard copy of the Prequalification, Technical and Financial proposals should be kept in three separate envelopes placed in one large envelope that must be marked as below and sent to:-

BID FOR CAB EQUIPMENTS AND CONSUMABLES FOR NFHS-5,

To,

The Director,

International Institute for Population Sciences,

POST BOX NO.-8307

Govandi Station Road, Deonar, Mumbai-400 088

Tel: 91+22+42372400; Fax: 91+22+2556 3257

The last date for submission of complete bid with all supporting documents (by hand, by post or by courier) is May 30th 2018 up to 5:30 PM. Any bid received after the prescribed time will not be entertained. IIPS will not be responsible for any loss or postal delay.

6. Force Majeure and Termination

6.1 Force Majeure:

6.1.1 Where the performance by the bidders of their obligations under this Contract is delayed, hindered or prevented by an event or events beyond the reasonable control of the bidders and against which an experienced bidder could not reasonably have been expected to take precautions, the bidders shall promptly notify IIPS in writing, specifying the nature of the force majeure event and stating the anticipated delay in the performance of this Contract.

6.1.2 From the date of receipt of notice given in accordance with Clause 6.1.1, IIPS may, at its sole discretion, either suspend the Contract for up to a period of 6 months (“the Suspension Period”) or terminate the Contract forthwith.

If by the end of the Suspension Period the parties have not agreed on a further period of suspension or re-instatement of the Contract, the Contract shall terminate automatically.

6.2 Suspension or Termination without Default of the bidders

6.2.1 IIPS may, at its sole discretion, suspend or terminate this Contract at any time by so notifying the bidder and giving the reason(s) for such suspension or termination.

6.2.2 Where this Contract has been suspended or terminated pursuant to Clause 6.2.1, the bidder shall:

- a) Take such steps as are necessary to terminate the provision of the Services, (including suspending or terminating any Sub-contracts) in a cost-effective, timely and orderly manner; and
- b) Provide to IIPS, in not more than 30 days after IIPS notifies the bidder of the suspension or termination of this Contract an account in writing, stating:
 - i. Costs, if any, due before the date of suspension or termination;
 - ii. Any costs to be expended after the date of suspension or termination, which the bidder necessarily incurred in the proper performance of this Contract and which it cannot reasonably be expected to avoid or recover.

Subject to IIPS approval, IIPS shall pay such amount to the bidder normally within 30 days after receipt from the bidder of an Invoice in respect of the amount due.

6.3 Termination for Default of the bidders

6.3.1 IIPS may notify the bidder of the suspension or termination of this Contract where the services or any part of them are not provided to the satisfaction of IIPS giving the reasons for such dissatisfaction and, in the case of suspension, the action

required by the bidder to remedy that dissatisfaction and the time within which it must be completed.

6.3.2 Where this Contract is suspended under Clause 6.3.1 and the bidder subsequently fails to remedy the dissatisfaction, IIPS may terminate the Contract forthwith.

6.3.3 IIPS may, without prejudice to its other rights, including but not limited to the right to claim for costs and losses incurred, terminate this Contract forthwith where:

- a) The bidder or any member of the bidder's personnel, either directly or through their servants or agents, breaches any of their obligations under this Contract; or
- b) The bidder or any member of the bidder's personnel has committed an offence under any of the prevailing laws applicable to the project; or
- c) The bidder is an individual or a partnership and at any time:
 - i. Becomes bankrupt; or
 - ii. Is the subject of a receiving order or administration order ; or
 - iii. Makes any composition or arrangement with or for the benefit of the bidder's creditors; or
 - iv. Makes any conveyance or assignment for the benefit of the bidder's creditors ; or
- d) The bidder is a company and:
 - i. An order is made or a resolution is passed for the winding up of the bidder; or
 - ii. A receiver or administrator is applied in respect of the whole or any part of the understanding of the bidder.
- e) The bidder is a partnership or a company and there is a Change in Control. "Change in Control" means that the person(s) (including corporate bodies) directly or indirectly in Control of the bidder at the time this Contract is entered into cease to be in Control. "Control" means the power of a person to secure that the affairs of the bidders are conducted in accordance with the wishes of that person.

6.3.4 Where the Contract is terminated in accordance with this Clause 6.3.3, the bidder shall without prejudice to IIPS other remedies, take any steps necessary to terminate the provision of the Services in a timely and orderly manner but shall not be entitled to any further payment in relation to this Contract.

6.3.5 Where this Contract is terminated pursuant to Clause 6.3.3 the bidder shall pay IIPS within 10 days of notification such amount, as IIPS shall have determined as the amount of any loss to IIPS resulting from such termination together with the amount or value of any gift, consideration or commission concerned.

Annexure A: Earnest Money Deposit (EMD) for CAB Equipment and Consumables			
	Items	Units	EMD
1	Stadiometer (Adult height measuring equipment)	300	60,000
2	Infantometer	300	1,00,000
3	Mother/Infant scale weighing scale model	300	3,00,000
4	Glucometer with carrying case	300	3,00,000
	Glucose strips	1800000	
5	HemoCue (Hb 201+)	300	20,00,000
	Hemocuemicrocuvettes	1405000	
	Hemocue cleaner	100000	
6	BP monitor (m/medium cuff)	300	50,000
	Additional BP Cuff (Large)	300	
	Additional BP Cuff (Small)	300	
7	GPS receivers	300	1,00,000
8	Gullick's II Tape**	1,200	1,00,000
9	Batteries of weighing scale	38500	40,000
	Hemocue Batteries	21120	
	Compatible and recommended AA batteries for BP monitor	20750	
10	Alcohol preps (pack of 1 piece)	1750000	40,000
11	Gauze - sterile, disposable (2x2)	1750000	2,00,000
12	Lancet	1460000	6,00,000
	Lancet Large	270000	
13	Compatible and recommended AA batteries/ Lithium batteries for the glucometer	6600	2,000
14	Absorbent sheet- 19 x13,3- ply	1750000	20,00,000
15	Gloves (latex powder free) small	351000	70,000
16	Gloves (latex powder free) Medium	621000	120,000
17	Gloves (latex powder free) Large	432000	80,000
18	Gloves (Latex free) Small	32500	6,000
19	Gloves (Latex free) Medium	57500	10,000
20	Gloves (Latex free) Large	40000	7,000
21	Salt test Kit (Potassium Iodide)	20000	30000
	Salt test Kit (Potassium Iodate)	20000	
22	Biohazard bags (7-10 gal)	414700	1,50,000
23	Adhesive Bandage Adult, sheet (3/4 in.x3in.)	907200	40,000
24	Adhesive Bandage for child, sheet (1/2in.x2 in.)	420000	20,000
25	Cooler Igloo box/cold box/ice carrier, 16Qt	1000	20,000
26	Dessicants 1.0g	5,00,000	1,20,000
27	Drying Racks	4000	4,000
28	Filter paper cards #903	1,00,000	1,60,000
29	Humidity Indicator cards	1,00,000	60,000
30	Barcode Labels 1*3	3,00,000	6,000
31	Plastic Box3.3L (should be compatible with the design drying rack selected)	1760	3,000
32	Ziplog bag, 12"x15" small	90,000	15,000
33	Large zip log bag	10000	4,000

LIST OF CAB EQUIPMENTS

S. No.	Supplies	Estimated qty.*	Pack specs	Generic specifications
1	Stadiometer (Adult height measuring equipment)	300	unit equipment	Foldable height measuring device, should be easily carryable in the field, calibrated with graduation of 1mm, should be able to measure 20-205 cm, light weight, must have a measurement reading window, the entire system should not weigh more than 4kg, product with demonstrated accuracy and earlier use in large scale surveys with international comparability would be preferred. GMP WHO-GMP or equivalent International quality standard certification essential.
2	Infantometer	300	unit equipment	Light weight foldable infantometer, fit for mobile use, measures 10- 100cm with graduation of 1mm, documented accuracy and use in large scale survey particularly in earlier rounds of NFHS, equipment with demonstrated international comparability of results would be preferred (GMP/WHO-GMP or equivalent International quality standard certification essential.)
3	Mother/Infant scale weighing scale model	300	unit equipment	Battery operated electronic weighing scale with mother and child function, having clear digital display, with side mounted on/off switch, capacity of 200kg with graduation of at least 50grams, adjustable levelling feet, automatic switch-off function, device weighing no more than 4 kg, of documented accuracy, use in large scale survey particularly in earlier rounds of NFHS with international comparability would be preferred, with guaranteed service support (GMP/WHO-GMP or equivalent International quality standard certification essential.)

4	Glucometer with carrying case	300	unit equipment	Battery operated glucometer with digital display, should have documented quality control and calibration method, having Indian or International quality certificate and proven use in large scale studies. The results should be equivalent to plasma levels of glucose, documented accuracy for international comparisons (GMP/WHO-GMP or equivalent International quality standard certification essential.)
5	Hemocue (Hb 201+)	300	unit equipment	Precise factory calibration against the ICSH reference method, patented microcuvette technology with excellent lot to lot reproducibility. Should be able to process capillary whole blood.
6	BP monitor (w/ medium cuff)	300	unit equipment	Automatic, battery operated BP instrument with demonstrated accuracy, preferred to have provision to indicate proper positioning of arm cuff, should have standard Indian or international certification. Provided with Medium Cuff - arm sizes 22–32 cm (GMP/WHO-GMP or equivalent International quality standard certification essential.)
7	Additional BP cuff (Large)	300	unit cuff	Large Cuff - - arm sizes 32–42 cm, compatible with the BP monitor
8	Additional BP cuff (Small)	300	unit cuff	Small Cuff - arm sizes 17–22 cm, compatible with the BP monitor
9	GPS receivers	300	unit equipment	Weatherproof (dust and water), ability to store at least 500 waypoints, records altitude, records date and time, allows for various coordinate systems and datum's, uses power supply that is readily available in the survey location, satellite augmentation enabled, able to transfer waypoints to a computer in a tabular format

10	Gulick II Tape**	1200	Unit equipment	<p>Individually calibrated for optimum accuracy and should apply a constant tension to the measuring tape, should provide user independent repeatable measurements, Polyester reinforced tape (non-stretchable & non-pliable), non-stretchable, retractable tape with both Metric and English gradations (centimeters and inches) and graduation of 1mm, should be up to 5/16 inch wide and up to 72 inches long (minor variations allowed), should include convenient clip-on lanyard.</p> <p>The tape should not be metallic to avoid the discomfort of a cold object touching the skin and to eliminate any possibility of scratches or cuts, self-retracting tape should be kept at the desired length until the retract button is pushed, compression spring should last lifetime without stretching.</p> <p>Documented accuracy of use in large scale survey, with international comparability shall be preferred, with guaranteed service support (GMP/WHO-GMP or equivalent International quality standard certification essential.)</p>
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LIST OF CONSUMABLES

Note: The consumables should have sufficient shelf-life so as to cover the entire time period of field work during NFHS-5 (up to December 2019 or after two years of purchase, whichever is later). In case of any product having limited shelf life, the supplier has to phase the manufacturing and supplies so that products with valid expiry dates are made available throughout the survey, otherwise the supplier should replace the expired supplies with new supply on their own cost.

S. No.	Supplies	Estimated qty*.	Generic specifications
1	Compatible and recommended AA batteries for GPS	2000	Leak-proof, with proven long shelf life, alkaline AA (R6) batteries (1.5 Volts)), with wider storage temperature and operating temperature range
2	Compatible and recommended AA batteries for scales	36500	Leak-proof, with proven long shelf life, alkaline AA (R6) batteries (1.5 volts)), with wider storage temperature and operating temperature range
3	Alcohol preps(pack of 1 piece)	1750000	Cloth towelettes soaked in 70% isopropyl alcohol, individual packets containing two such tow elettes (GMP or WHO-GMP certificate essential)
4	Gauze - sterile, disposable (2x2)	1750000	Sterilized cotton gauze pieces, packed in pairs, packet should be of paper and can be torn easily with hands
5	Lancet	1460000	23 gauge, 1.8 mm Depth, Automatic retracting of lancet into device, Should allow adjustment of pressure and timing of activation, should allow for easier sampling, less pain, better visibility of the desired puncture site.
6	Lancet (Large)	270000	21 gauge, 2 mm Depth, Automatic retracting of lancet into device, Should allow adjustment of pressure and timing of activation, should allow for easier sampling, less pain, better visibility of the desired puncture site.

7	Hemoque microcuvettes	1405000	Microcuvettes compatible with Haemocue Hb 201+ haemoglobinometer, made up of polysterene plastic, should be able to contain approximately 10 microliter blood and reagents, should carry CE mark
8	Hemocue cleaner	100000	Compatible for cleaning the cover glasses of optronic unit for Haemocue (Hb 201+) Sponge made of polyurethane foam, covered by microfiber fabric and pre-saturated with a cleaning solution (containing about 20% Ethanol and 1% Triton x-100)
9	Hemocue Batteries	21120	Leak-proof, long shelf life, alkaline AA (R6) batteries (1.5 Volts) OR Lithium batteries as per the recommendations of glucometer manufacturer
10	Glucose strips	1800000	Compatible reagent containing strips for the glucometer as specified, year of manufacturing should be 2018 and should be have shelf life to cover 24 months of field work (otherwise phased supply would be needed) (GMP/WHO- GMP or equivalent International quality standard certification essential.)
11	Compatible and recommended AA batteries/ Lithium batteries for the glucometer	6600	Leak-proof, long shelf life, alkaline AA (R6) batteries (1.5 Volts) OR Lithium batteries as per the recommendations of glucometer manufacturer
12	Absorbent sheets - 19"x13", 3-Ply	1750000	Rectangular absorbent sheets having absorbent paper on one side and waterproof polyethylene (or similar material) on the other side. Should be easily foldable, dimensions - 19 inches X 13 Inches (small variation in size permitted), thickness of sheet around 3 ply (GMP or WHO-GMP certificate essential)
13	Gloves (latex, powder free) - SMALL	351000	Latex gloves of standard quality (GMP/WHO GMP certificate)

14	Gloves (latex, powder free) - MEDIUM	621000	Latex gloves of standard quality (GMP/WHO GMP certificate)
15	Gloves (latex, powder free) - LARGE	432000	Latex gloves of standard quality (GMP/WHO GMP certificate)
16	Gloves (LATEX FREE) Small	32500	Latex FREE gloves of standard quality (GMP/WHO GMP certificate)
17	Gloves (LATEX FREE-)MEDIUM	57500	Latex FREE gloves of standard quality (GMP/WHO GMP certificate)
18	Gloves (LATEX FREE) - LARGE	40000	Latex FREE gloves of standard quality (GMP/WHO GMP certificate)
19	Compatible and recommended AA batteries for BP monitor	20750	Leak-proof, with proven long shelf life, alkaline AA (R6) batteries (1.5 Volts), with wider storage temperature and operating temperature range, as per recommendations from BP instrument
20	Salt test kits (Potassium Iodate)	20000	SALT-IODATE testing kits, 100 tests per kit
21	Salt test kits (Potassium Iodide)	20000	SALT-IODIDE testing kits, 100 tests per kit
22	Biohazard bags (7-10 gal)	414700	Polyethylene bags , red colored, printed with BIOHAZARD LOGO, thickness of at least 1.1 mil, capacity 7-10 gallons
23	Adhesive bandage adult, Sheer (3/4 in. x 3 in.)	907200	Medicated adhesive plasters individually wrapped (for adults), used for dressing skin pierces and smaller wounds like needle pricks on fingers, 3/4in. X 3in. (GMP or WHO-GMP certificate essential)
24	Adhesive bandage for child, Sheer (1/2 in. x 2 in.)	420000	Medicated adhesive plasters, individually wrapped (for children), used for dressing skin pierces and smaller wounds like needle pricks on fingers, 1/2in. X 2in. (GMP or WHO-GMP certificate essential)

Equipments and Consumables for DBS

1	Cooler - Igloo box/cold box/ice carrier, 16 Qt	1000	Insulated igloo box (cool box) with airtight lid and handle for carrying, dimensions-approximately 14inchesX 10 inchesX10 inches
2	Desiccants 1.0 g	500000	Small bags of silica gel desiccants of 1gm each, changes color on exposure to moisture (indicating desiccants), (GMP/WHO-GMP or equivalent International quality standard certification essential.)
3	Drying Racks	4000	Foldable drying racks that can be fitted into a box of dimensions 8 inches X 12 inches X 6 inches. Card drying racks are designed to accommodate multiple collection forms at one time, safely and properly air-drying the blood specimens suspended in a horizontal position. The back of the drying rack has to be able to be affixed with Velcro to the 3.3 L plastic box mentioned below. (GMP/WHO- GMP or equivalent International Quality standard certification essential.)
4	Filter paper cards #903	100000	Filter paper cards for dried blood spot preparation. Manufactured from 100% pure cotton linters with no wet-strength additives. Each card should have a sample collection area of five 1.3cm (1/2")pre-printed circles, with each circle holding 75– 80µ L of sample. Documented uniform distribution of the blood sample on filter paper card (GMP/WHO-GMP or equivalent International quality standard certification essential.) Product which has been successfully used for other DBS based studies in India and internationally will be preferred.
5	Humidity indicator cards	100000	Humidity indicator cards to indicate 3 levels of exposure to humidity (30, 40 and 50%) through colour changing circles (to be used for humidity monitoring in closed packaging). Conforming to international/national standards with proven history of use.
6	Barcode labels1*3	300000	Alphanumeric bar code, random numbers in triplicate, nontearable material, should retain adhereness at -20 ⁰ C
7	Plastic box, 3.3L (should be compatible with the design drying rack selected)	1760	Box which has internal dimension of atleast 10 inches X 5.5 inches X 4.5 inches , made of first grade transparent plastic, having completely removable lid on top (these boxes will be used for keeping filter paper cards in the drying racks)
8	Ziploc bag, 12"x15" small	90000	Reclosable (ziploc)bags, transparent, dimensions 12 inchesX 15 inches
9	Ziploc bag, 12"x15" large	10000	Reclosable (ziploc)bags, transparent, dimensions 12 inchesX 15 inches