

**WELFARE IMPACT ANALYSIS OF MENSTRUAL HYGIENE POLICY THROUGH
EMPIRICAL STUDY IN PUNJAB**

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ABSTRACT

This paper outlays a study of 144 women, done in Ludhiana district of Punjab, wherein information has been obtained through objective as well as open-ended questions. These women belong to low income families and menstrual hygiene is not a priority for them due to their lack of awareness of the consequences of poor menstrual hygiene and prevalent taboos preventing them from openly discussing their problems. A large proportion of women still use old rags and unhygienic cloth during menstruation. None of the women interviewed was aware of any ongoing government scheme for menstruating women, which implies that government needs to strongly advertise these schemes. The pads supplied in such schemes are regular-sized and do not cover the needs of all women, thereby leading to leakages and discouraging them from using pads altogether. Schools only teach the girls about menstruation which perpetuates a culture of hiding it from the male population and fails to teach boys that it being a biological phenomenon needs to be respected and not ridiculed. Female attendants at government pharmacies are therefore necessary to encourage women to buy pads and also, these pharmacies can be used for spreading salubrious information. This paper further deploys three different methods to conduct an economic analysis as to why the government scheme is not efficient enough, and what steps can be taken to address this problem.

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1. INTRODUCTION

Dr. BR Ambedkar said that “*I measure the progress of a community by the degree of progress the women have achieved*”. Menstruation is a biological phenomenon, which every woman goes through monthly and which adversely affects the mental and physical well-being of half of the population of our country. Poor menstrual hygiene results in a plethora of fungal & bacterial infections of the reproductive and the urinary tract. In fact, 70% of the Reproductive Tract Infections (RTI's) in women are caused due to poor menstrual hygiene.² Not only this, 1/3rd of the global cases of cervical cancer are in India, the major cause of which is poor menstrual hygiene.³ 10% of Indian girls believe Menstruation to be a disease since it affects their health adversely.⁴ Periods are still considered to be ‘unclean’ in the Indian society, and over the years we have not been able to eradicate this presumption.⁵ There are incidents in India wherein girls are stripped naked to check if they are menstruating,⁶ to ensure that they do not enter temple or kitchen premises during their menstrual period⁷, places where they are isolated in ‘period huts’⁸, they are deemed to be religiously impure and their involvement in daily activities deemed impure⁹, this has resulted in large-scale neglect of their health conditions and there are increasing reports of women resorting to hysterectomy in specific areas.¹⁰ Despite their being scientific evidence with regard to the consequential harm of poor

² The United States Agency for International Development & The Kiawah Trust, *Spot On! Improving Menstrual Management in India* (2018).

³ K. Kaarthigeyan, *Cervical cancer in India and HPV vaccination*, 33 INDIAN J. MED. PAEDIATR. ONCOL. 7–12 (2012).

⁴ Ministry of Education, Bhutan and UNICEF Bhutan, *Menstrual Hygiene Management of adolescent school girls and nuns in Bhutan 2018*, (2018) <https://www.unicef.org/bhutan/media/211/file/Menstrual%20Hygiene%20Management%20Report%202018.pdf>

⁵ R. Kaur, K. Kaur, and R. Kaur, *Menstrual Hygiene, Management, and Waste Disposal: Practices and Challenges Faced by Girls/Women of Developing Countries*, J. ENVIRON. PUBLIC HEALTH (2018).

⁶ Geeta Pandey, “*Period-shaming*” *Indian college forces students to strip to underwear*, BBC NEWS (Feb. 16, 2020) <https://www.bbc.com/news/world-asia-india-51504992>.

⁷ *India school's “menstruation check” investigated*, BBC NEWS (Mar. 31, 2017) <https://www.bbc.com/news/world-asia-india-39452245>.

⁸ Barkha Mathur, *Where women are banished to a ‘period hut’ with no power or loo*, TIMES OF INDIA, (Nov. 27, 2018) <https://timesofindia.indiatimes.com/city/nagpur/where-women-are-banished-to-a-period-hut-with-no-power-or-loo/articleshow/66834713.cms>.

⁹ *Menstruating women cooking food will be reborn dogs’: Hindu religious leader*, HINDUSTAN TIMES, (Feb. 18, 2020) <https://www.hindustantimes.com/india-news/menstruating-women-cooking-food-will-be-reborn-as-dogs-swami-narayan-sect-member/story-c9M4Ozcl0oilsYFEV4DfzN.html>.

¹⁰ Jyoti Shelar, *A harvest of crushed hopes: Why number of hysterectomies are high in Maharashtra's Beed district*, THE HINDU (Aug. 10, 2019) <https://www.thehindu.com/news/national/other-states/in-beed-a-harvest-of-crushed-hopes/article28969404.ece>.

menstrual hygiene, most women in low and lower-middle income countries use old rags for blood absorption.¹¹ As per 2012, the estimated number of women using disposable napkins is only 10-11%.¹² It is however disheartening to note that we have made very little progress from there.

Anurag Chauhan, the *pad-man* of India, once said that ‘menstruation is not the problem; poor menstrual hygiene is. Poor Menstrual Hygiene is a problem, as big as polio’. While India successfully eradicated polio by deploying an army of healthcare workers making door-to-door visits and vaccination camps in high risk areas,¹³ Menstrual practices are yet to meet a hygienic companion to disassociate the potential discomfort and diseases, alongside the existing taboos which accompany menstruation.

Media, government and people all over the country have tried to ward off these taboos, but every grassroot survey we conduct shows us that there are problems still intact and milestones yet to be achieved. This paper is an attempt to analyse the problem of menstruation in one district of Punjab, reflecting in bits and pieces as to how it affects India as a whole. It shall further run an economic analysis of the scheme by scrutinising the gap in policy-making, its potential for long-term benefits and gauging the extent of welfare provided by the scheme. The paper shall finally propose possible solutions to solve the problem.

2. THE STUDY: AIMS AND METHODOLOGY

Research shows lack of awareness about **Jan Aushadhi Centres** (“JAC’s”) and generic medicines amongst people due to the paucity in number of doctors prescribing it and lack of advertisement about the same has been conducted¹⁴.

¹¹ K. Seymour, *Bangladesh: Tackling Menstrual Hygiene Taboos*, UNICEF, (2008).

¹² A. Sebastian, V. Hoffmann, & S. Adelman, *Menstrual management in low-income countries: needs and trends*, 32 WATERLINES, 135–153 (2013).

¹³ Esha Chhabra, *The End of Polio in India*, STANFORD SOCIAL INNOVATION REVIEW (2012) https://ssir.org/articles/entry/the_end_of_polio_in_india.

¹⁴ Vijay Thawani, Abin Mani, and Neeraj Upmanyu, *Why the Jan Aushadhi Scheme Has Lost Its Steam in India?*, 8 J. PHARMACOL PHARMACOTHER, 134–136 (2017).

This study attempts to analyse the knowledge of women about JAC's along with their awareness about **Jan Aushadhi Suvidha Oxo-Biodegradable Sanitary Napkins**¹⁵ by asking a set of questions to women and looking at possible solutions to the problems highlighted.

The primary objective of this study is to find answers to the following questions:

- i. The usage of sanitary napkins amongst these women;
- ii. their awareness of 'Jan Aushadhi Suvidha Oxo-Biodegradable Sanitary Napkins' (Ministry of Chemicals and Fertilizers, 2019); and
- iii. the prevalent practice of maintaining Menstrual Hygiene and problems faced by women.

Further, an attempt at creating awareness amongst the women was also made by the volunteers.

3. STUDY AREA OF SAMPLING

The study was conducted on 26th February 2021 in a park of a colony on pretext of distributing free goods wherein the real purpose of the camp was not conveyed (it is hereby noted that women would not have come if they knew what the camp was about and the free substance being distributed was sanitary napkins. The same was felt during the evening hours when women refused to come since the word had already spread about sanitary napkins being distributed) and that menstrual hygiene practices were explained to women of low-income class. The posters for the camp were put up and the information about the same was being spread from 2 weeks' prior on every social media platform as well as through verbal communication between housewives and housemaids. The camp was conducted all day from morning 10:00 a.m. to evening 8:00 p.m. with 3 attendants present full-time. Verbal consent was obtained and the name, age, residence, present menstrual product being used, menstrual hygiene practices opted by them, problems faced during their period, along with their awareness of the existing government scheme was noted.

Personal information revealing the identity of the subjects has been removed from the dataset and is only kept as record with the principal investigator. A total of 144 women visited the camp at different timings throughout the day. The age of the women varied from 13 to 60 years.

¹⁵ (missing)

Most of the women worked as domestic help or were involved in other low-paying jobs. 40% of the women were from *Sunet*¹⁶ and others were from adjoining areas falling under the same pin code. Both objective as well as open-ended questions were asked. In-depth interviews were also conducted to gauge the gravity of the situation.

4. TOOLS AND TECHNIQUES OF DATA COLLECTION

Given the multitude of factors responsible for a varied response amongst different age groups and for facilitating a comprehensive understanding of underlying reasons distinctly, women are classified into six age groups for the purpose of this study. (Table 1)

Group number	Age groups	Number of women studied	Percentage of total data set (approx.)
1.	13-16 years	20	13.8
2.	17- 20 years	21	14.5
3.	21- 30 years	35	24.3
4.	31- 40 years	43	29.8
5.	41-50 years	16	11.1
6.	51-65 years	8	5.5
	Total	144	100

Table 1: Classification of women into different age groups

¹⁶ PINCODE / POST OFFICE LOCATOR TOOL, <https://pincode.net.in/sunet-rajguru-nagar-ludhiana-east-punjab-141012>. (last visited Jul. 16, 2021).

5. RESULTS

The findings are based on interviews conducted and questions asked. An analysis of the objective questions has been presented in Table-2; and Table-3 contains the salient points particular to each group, followed by some incidents that happened during the study.

Basis	G1 (13-17yrs)	G2 (17-20ys)	G3 (21-30yrs)	G4 (31-40yrs)	G5 (41-50yrs)	G6 (51yrs+)	Overall
Awareness of Consequences of poor Menstrual Hygiene	None	None	None	None	None	None	None
Awareness of govt scheme*	None	None	None	None	None	None	None
Awareness of JACs**	None	None	Few	Few	None	None	Very Few
Using cloth	3	5	18	14	6	6	
	15.7%	23.8%	51.4%	32.5%	37.5%	37.5%	33%
Using pad	16	16	17	29	10	N.A.	
	84.2%	76.1%	48.1%	67.4%	62.5%	--	67.66%
Total	19	21	35	41	16		

Table 2: Group-wise summary-analysis of all the objective questions asked

* The Govt. scheme is the Jan Aushadhi Suvudha Oxy-biodegradable Sanitary Napkin scheme.

** Jan Aushadhi Centres are referred to as JAC's.

While most of them were aware of the pads available in the market, they found them to be ‘too costly’. They also stated that the regular-sized pads which were the cheapest in the market, were not useful as they resulted into leakages. Women with heavy flow said that they had bad experience using pads for the first time, and the bigger pads were more expensive.

They all felt embarrassed sharing it with the opposite gender or talking to them about it. Not entering kitchen or temples during menstruation is still prevalent. Most women while suffering from menstrual cramps, do not know how to share it with the male members of the family. Some women, mostly between the age group of 13-20 years, said that they were too shy to purchase pads from male attendants at pharmacies. When ‘Jan Aushadhi Centres’ were mentioned, they inquired whether the attendant was a male or female. Many women could link menstruation to child-birth, while they did not exactly know why they bled every month. Menstrual Hygiene was not a priority for these women as they were not aware of the consequences of poor menstrual hygiene or the resultant diseases, many also did not keep a track of their period and used pads as well as cloth interchangeably. Most of them were not habitual to using pads. None was aware of ‘tampons’ or ‘menstrual cup’ as a menstrual product. Most women who wear pads, do not change them for long intervals, often wearing the same pad all day. Among those using cloth, some said that they used 2 pieces of cloth during the day, changing it after half-a-day had passed and throwing off the used cloth; while some also remarked that they used the same cloth for the full duration of their menses, washing it only at night.

Group no.	Salient features
Group 1 (13-16 yrs.)	<ul style="list-style-type: none"> ➤ Maximum percentage of women using pads in this age group, primarily because of education and govt schools supplying free sanitary pads.¹⁷(“Punjab Government”, 2021) ➤ Girls were unaware about menstruation before menarche.

¹⁷ Punjab government announces free sanitary pads for girls in high schools and colleges, INDIA TODAY (Jan. 8, 2021) <https://www.indiatoday.in/education-today/news/story/punjab-government-announces-free-sanitary-pads-for-girls-in-high-schools-and-colleges-1757009-2021-01-08>.

	<ul style="list-style-type: none"> ➤ Two girls received sanitary napkins alongside their salaries from their employer. ➤ It was also noted as a general trend that each girl this age greeted us with a sheepish grin owing to the secrecy associated with the subject in question
Group-2 (17-20 yrs.)	Roughly 10% of the girls stated that they used cloth and pad interchangeably, whatever they had at the moment.
Group-3 (21-30 yrs.)	This group had the least percentage of women using pads and maximum were using cloth. Many used cloth and pads interchangeably.
Group-4 (31-40 yrs.)	Women usually came with their peers . They also tried to copy their answers. The reasons for copying can be ‘embarrassment’ for not using pads and still using cloth; or fear that they might not receive a free sample and therefore, should do as others are doing.
Group-5 (41-50 yrs.)	While some mothers said that their daughters had started using pads, they themselves did not use them. They looked at it as an avoidable expense and using it to be a luxury which could be forfeited.
Group-6 (51-60 yrs.)	<ul style="list-style-type: none"> ➤ Smallest sample, therefore, least representation. ➤ Most women had reached menopause.

Table-3: Specific characteristics of each age-group

6. DISCUSSION

Periods are colloquially known as “*mahina*”, (meaning ‘month’), because they occur every month. Very few were aware about Jan Aushadhi Centres, also colloquially known as “*Modi Dawai Khana*”, wherein they could purchase medicines at a lower price; however, none was aware of the scheme regarding low-cost sanitary napkins.

It is important to note that since girls are unaware of menstruation before menarche,¹⁸ they often end up hiding their first period from their parents and get stressed thinking of what has happened to them. This was further reiterated by the study conducted.

There was also an incident where a mother-child duo, both of menstruating age, were handed over packets of pads wrapped in newspaper, but were reluctant to hold it, as though they were given something 'dirty' to hold onto. They kept on passing the pack to each other, for neither of them wanted to hold it. Their main concern was, "*Koi dekh lega to kya jawab denge?*" (What will we say if somebody sees and asks?) The burden of hiding it, considering it to be unclean and the shame associated with periods is still intact in some parts of India, and this was a clear example.

Three girls from the first age-group belonging to well-off families, said that their mothers had not talked to them about menstruation but it was their peers they had learnt it from. (This data has not been included in the overall sampling) The little knowledge passed onto them by their mothers was to not talk about it publicly and to keep it a secret from boys. It is important to realise that this taboo is being passed on from every mother to daughter to granddaughter to keep it a secret from the opposite gender as it is 'indecent' to talk about it.

A woman, after thoroughly looking at the pad, stated that she will not use it since the pad was too small and would only stain her clothes and bedsheet. She said that while the price was affordable, the pads do not serve the intended purpose.

It was peculiar to note that some women straightaway refused to enter the camp, stating that they knew what it was for, and did not want pads for free since they do not use them. Some of them had never used a pad and were unaware of 'how to use a pad'. When demonstrations were given to explain how simple it was to wear a pad, the women felt highly embarrassed and considered it to be an inappropriate subject to have a camp on. Some women were reluctant to try these pads, as they worked as housemaids every day, and could not afford to have a leakage while they are working in somebody's house. None of them were aware of the consequences of poor menstrual hygiene. They were also not aware of any governmental scheme of ₹1 per pad which could be bought from Jan Aushadhi Centres.

¹⁸ A. Dasgupta, M. Sarkar, *Menstrual Hygiene: How Hygienic is the Adolescent Girl?*, 33 INDIAN J. COMMUNITY MED. 77, (2008).

A woman from Sunet said, *“I share the area where I reside with 6 more women and none of them uses a sanitary napkin. Pads are very costly and we cannot afford. If you tell everyone about these pads and the consequences of poor menstrual hygiene, they will surely listen to you and follow.”*

A significant number of women admitted to using cloth. One woman said that she used the same cloth for the number of days a single menstrual cycle lasted by washing it once a day, another said that she used the cloth for half the day, and then throws it and uses another one. They also feel that they cannot justify the presence of sanitary pads in their houses as the male members wouldn't understand and they would feel shy. Even today, when women have cramps and menstrual pain, they hide it from the male members of the family. Suffering from menstrual pain, discomfort and not even being able to talk about it, deteriorates the mental as well as the physical condition of women. The Jan Aushadhi Centres that were visited in the locality had full supply of these pads, yet the public was unaware.

7. ECONOMIC ANALYSIS FOR EFFICIENT POLICY

To increase the efficiency of the policy, it is crucial to increase the difference between the total benefits and the total costs.¹⁹ There are various economic and rational methods of analysing the efficiency of a policy. One of which has been laid down by the Office of Management and Budget, U.S. Government²⁰, and the same method has been used to try to understand the reasons behind an unsuccessful implementation of the Jan Aushadhi Suvidha Sanitary napkins scheme by the government. This chapter further attempts to explore the possible use of calculating *Marginal Value of Public Funds* (“MVPF”) for welfare-impact analysis.

¹⁹ WILLIAM K. BELLINGER, *THE ECONOMICS OF PUBLIC POLICY*, 151-173 (Routledge 2007).

²⁰ Office of Management and Budget, *Guidelines and Discount Rates for Benefit–Cost Analysis of Federal Programs*, (October 29, 1992) THE WHITE HOUSE (CIRCULARS) <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A94/a094.pdf>

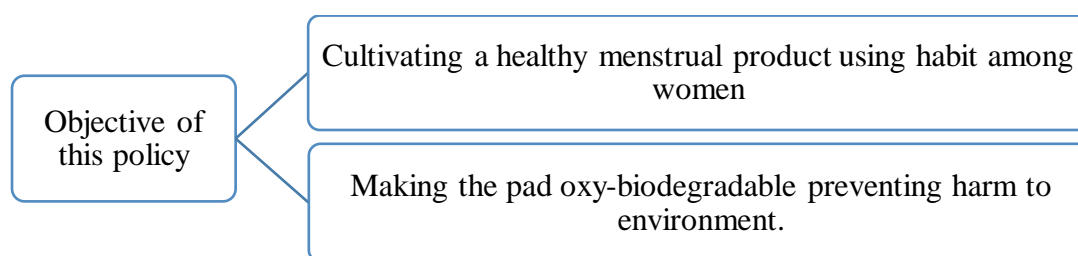
7.1 Understanding the policy rationale and the lacunas

The scheme uses a 4-point criterion for demarcating the cost-efficiency of a policy as presented by the U.S. government. These are:



7.1.1 Policy rationale

The rationale for policy making should consider the possible market failure, and also see as to how it leads to cost-saving investments. In this case, investment in improving the health of women will have a ripple effect on their productivity, thus, boosting the economy by providing a healthier workforce.²¹ The objective of this policy was two-fold as given under.



7.1.2 Assumptions Used

The estimated future benefit derived out of the cost depends on the underlying assumptions used for reaching such a conclusion, these may include the number of future beneficiaries, the intensity of service, etc. Further, the strengths and weaknesses of such assumptions should also be analysed.

Identifying the assumptions:

Since the price of the sanitary pad was a dominant factor in preventing women from purchasing it, it was assumed that reducing it to Rs. 1 per pad will incentivise them to buy it. However, they can only buy the product if they know of its existence. It was assumed that the low-income

²¹ Yuko Imamura, et. al., *Association of Women's Health Literacy and Work Productivity among Japanese Workers: A Web-based, Nationwide Survey*, 3 JMA, 232-239, (2020).

class women will get to know about the scheme through advertisements and word of mouth, once they know about it, they will purchase and use them.

The fallacy with the assumptions:

The using of cheaper pads by women is contingent on their knowing about it. Television, newspapers or media could not have conveyed the information as it is often the male members of the family who read the newspaper and visit news channels; however, the social taboos often prevent both the genders from talking to each other about it. Therefore, alternative methods should be used so that the information reaches the ears of the targeted audience.

Moreover, the potential harms associated with poor menstrual hygiene, or the benefits that come alongside using a hygienic menstrual product were not conveyed to them, and therefore, even after being informed of the cheap price of the pads, they would not have bought them. This has resulted in none of the women knowing about it, at least in the study sample analysis, and further, no accompanying mechanism for explaining the need for using menstrual products has been undertaken.

There needs to be a further mechanism, which takes place after the commencement of her using these pads as well. This should address her apprehensions and further evaluate the efficiency of the product being supplied. If timely changes to the product and the response of women towards it is not known, it is not possible to know if the scheme is a success or not. Mere distribution of pads is not the way out.

7.1.3 Evaluating Alternatives

While deciding which policy to adopt, alternative means of achieving the objectives by scrutinising the variations which may occur by changing the scale of program, methods of provision or degree of government involvement are also analysed. This may also include upgrading and renovating the existing scheme. In the present case, 'sanitary napkins' were a preferred option as more women prefer sanitary pads in India in comparison to using menstrual cups or tampons and therefore, incentivising their use seemed appropriate. However, it is important to note that sanitary napkins are not entirely safe options if they are not changed within 4-6 hours.²²

7.1.4 Verification

Ex post facto studies evaluating if the predicted benefits and costs have been attained are extremely useful, therefore, the implementing organisation should devise periodic, results-oriented evaluation of program effectiveness. This will also come in handy when further funding is deviated towards the project or in case of change in amount of funding. However, no such feedback mechanism gathering information with regard to the success of the scheme has been made available in this case.

Mere launching of a policy, without successful implementation and follow-up shall defeat the purpose as then the cost of the policy shall overpower the predicted benefits. Therefore, it is of utmost importance that steps be taken in the right direction to make the policy most efficient.

Conclusively, even if women are made aware of the scheme, as long as they are not educated as to why they need to use the products, they will choose to save their 10 Rupees by not buying 10 pads. To them, the opportunity cost of Rs. 10 can be a packet of biscuits which should not be forfeited for disposal of blood which can be done on cloth rags or newspaper waste which will cost them nothing. This realisation should be there that the best alternative in this choice is not the packet of biscuits, rather a pack of pads as it is her good healthy years of life packed in a pink paper. This realisation can only come when someone interlinks the concept of health

²² T. Mahajan, 'Imperfect Information in Menstrual Health and the Role of Informed Choice', 26 INDIAN J. GEND. STUD., 59–78 (2019) (hereinafter MAHAJAN).

and the usage of pads for her, at the same time, interlinking the consequences of poor menstrual hygiene with “free” unhygienic piece of cloth.

Will this policy be beneficial in the long-run or has the potential to fail?

To analyse if such a policy facilitating subsidised pads would prove to be beneficial in the long run, the study done by Abhijit V. Banerjee & Esther Duflo is taken into account. In their reasoning, applying the principles as were laid down for analysing ‘whether free bed-nets would have made people habitual to using them, in malaria-prone areas’. Three primary questions were proposed that would have answered the problem.²³ Those questions are therefore, adapted to redress the problem-in-hand, and are:

- ⇒ First, if women should pay the full price (or at least a significant part of the price) for a pad, will they prefer to go without it?
- ⇒ Second, if the pads are distributed free of cost or at a subsidised price, will women use them, or will they be wasted?
- ⇒ Third, after getting the pad at subsidised price once, will women become more or less willing to pay for the next one if the subsidies are lessened in the future?

The study has successfully answered the first question that they deem the pads to be too costly and instead prefer to go without them if they are not provided for free/ subsidised.

The second question is analysed from the perspective of the pads being distributed at Rs. 1 per pad under the current scheme. Here, there is a possibility that women even after being made aware of the scheme do not buy the pads. The reasons for the same are two-pronged:-

- A. They do not find them useful as they do not understand the consequences of using unhygienic menstrual products.
- B. They are habitual to using cloth and do not want to change it since pads are generally considered to be uncomfortable and they fear leakage.

Therefore, there is a higher chance that Government’s investment into making this initiative a success may fail as the underneath problem as to why women are not using pads stays

²³ ABHIJIT V. BANERJEE & ESTHER DUFLO, POOR ECONOMICS, 16-17, (2012).

unaddressed. Therefore, a sincere effort at awareness is required and needs to be given priority for the success of any such scheme. As even though the cost of the product is a major problem, it is not the only problem in hand.

The third question can only be answered if there is a proper mechanism that exists for collecting feedback. Every good policy and even law that has been made needs to change with time. Such changes can only be made if we have enough data to make the correct decision. Therefore, a feedback mechanism to gauge whether the investment put forth in propagating a social cause is yielding the desired result or not has to be checked for.

7.2 Analysing the welfare impact of the policy

This chapter attempts at using ‘Marginal Value of Public Funds’ to explicate the implicit trade-offs involved in policy-making by measuring the direct and indirect effects (both in terms of cost and benefit) of policy to provide a welfare-impact analysis.

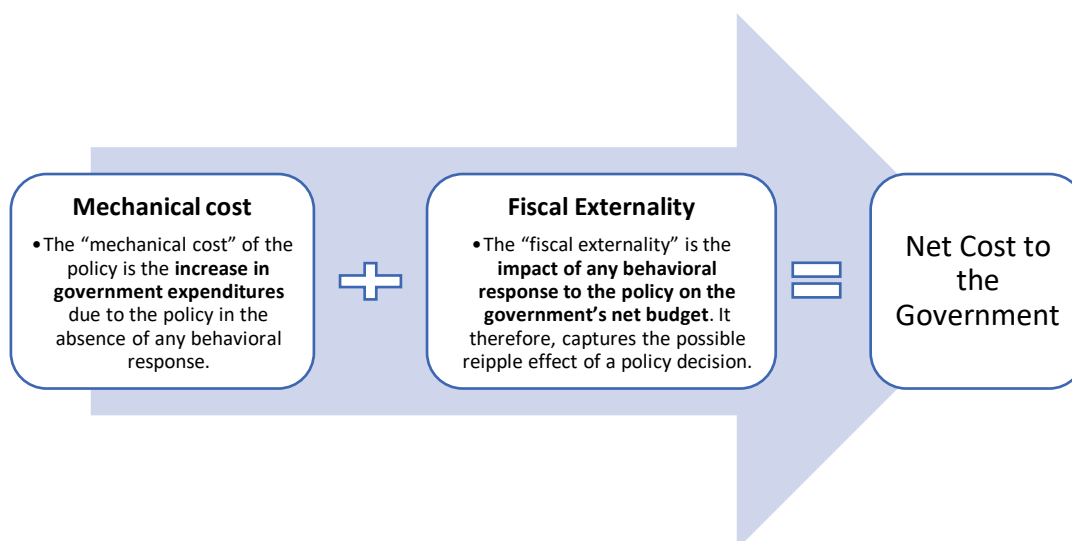
7.2.1 Calculating “Marginal Value of Public Funds”

The MVPF can be defined as the ratio of the marginal benefit of the policy to the marginal cost of the policy, which is inclusive of the impact of any behavioural responses to the policy on the government budget.²⁴ The marginal benefit of the policy can be more simply understood as the Beneficiaries' Willingness to Pay. It can be denoted as:

$$\text{MVPF} = \frac{\text{Beneficiaries' Willingness to Pay}}{\text{Net Cost to Government}}$$

⇒ Net Cost to the Government: The net cost to the government can be understood as the summation of the mechanical cost and the fiscal externality.

²⁴ Finkelstein, Amy, and Nathaniel Hendren. “Welfare Analysis Meets Causal Inference.” *The Journal of Economic Perspectives* 34, no. 4 (2020): 146–67. <https://www.jstor.org/stable/26940894>.



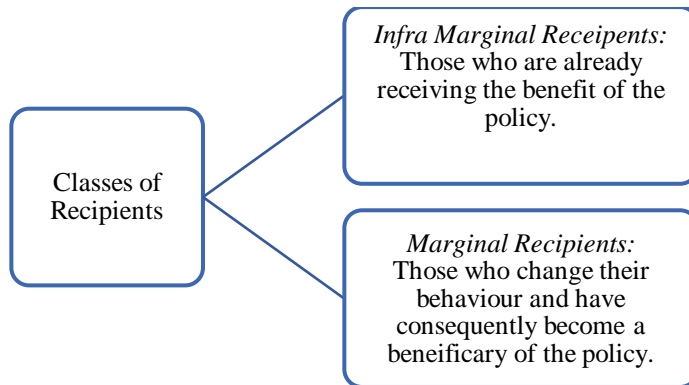
The *Mechanical cost* in this case can be the cost of producing the sanitary napkin, packaging cost, transportation cost to different stores, and advertisement cost incurred to spread awareness. Mechanical Cost can be best understood through the example of cash transfers²⁵, if ₹1 is to be transferred to a person as cash benefit, then ₹1 is the mechanical cost incurred by the Government.

The *Fiscal Externality* is the behavioural response generated which can potentially increase the net cost incurred by the Government. For instance, in case of cash benefit, let’s assume that only labourers working 6 hours daily were eligible for this cash transfer, then, some individuals might increase their working hours to fit into this category, (from working 5 hours daily to 6 hours) while some might reduce their working hours(from 8 hours to 6 hours) for benefitting from this policy. Therefore, in either case, a behavioural response is generated which will impact the budget.

Fiscal externality can be both positive or negative, depending on its effect on the government budget. For instance, a policy may have a positive net effect on the government budget (in this case, through improvement in health and reduction in healthcare expenditure) or a negative net effect on the government budget (through abuse of the subsidised product/ taking the free product but not using it).

²⁵ *Ibid.*

⇒ Benefits/ Beneficiaries' Willingness to Pay: For the purpose of receiving the welfare, the beneficiaries can be classified into two categories.



In this case, the benefit accrued to the beneficiaries is an *in-kind* transfer. Therefore,

$$MVPF^{in-kind} = \frac{W}{(MC + FE)}$$

(Wherein, W= Beneficiaries' Willingness to Pay; MC= Mechanical Cost of the Transfer, and FE= Fiscal Externality).

For instance, if it were a cash transfer, then as previously discussed, for every ₹1 borne as Mechanical Cost, each infra-marginal recipient would receive a benefit of ₹1 (i.e., MC=W=1).

Conversely, in case of an in-kind transfer, for every Marginal Cost of ₹1 for a product, the benefit obtained ("W") can either be valued less than the marginal cost (i.e., W<1) or more (i.e., W>1). For instance, if the government provides a good at a lower cost than is available in the market, then W>1.

Ideally, in the present case therefore, the benefit should be greater than 1.

7.2.2 *Application in the instant case*

In the instant case, the transferred good, i.e., the Government-sponsored sanitary napkin is provided at a lower cost than the already available sanitary napkins in the market. Therefore, being a close substitute (in theory), it should have yielded more benefit to the women and in turn, W>1. However, as can be noted above (Sub-chapter 7.1), the scheme did not yield benefits as anticipated. A multitude of factors have been held responsible for this, including, [A.] lack of awareness of the scheme; [B.] Lack of awareness of the consequences of poor menstrual

hygiene; and [C.] Small size & bad quality of the pad. Other factors being the taboo associated with Menstruation. All these factors, contributed in the failure to create a distinct class of consumers targeting the women of low-income class.

The failure of women from higher income groups from becoming a part of this policy can be attributed to the poor quality of the product and the paucity of effort to advertise it. This is primarily why the Government-supplied pad failed to be a close substitute to the pads available in the market, and its demand did not rise when the product was at a significantly cheaper price. Therefore, although the Government-supplied pad had the advantage of being cheaper, trust of the consumers in Government schemes²⁶, a well-established market and a potential consumer base, yet the demand of the product was skewed.

⇒ Incorporating the external effects of the policy

The policies, although often aimed at a particular set of people, have indirect effects beyond the targeted recipients. For instance, a policy aimed at controlling pollution via BS VI engines, will not only affect those generating pollution, but also those benefiting from the reduced pollution. Similarly, in the present case, a preventive healthcare policy aimed at improving the hygiene of women, will have indirect impact for businesses (healthier workforce); education system (fewer absentees amongst women); healthcare industry (reduced expenditure on cervical cancer patients); etc. Therefore, the MVPF Framework will include these positive external effects as positive fiscal externalities.

The key extension to the MVPF mechanism, as elucidated by Amy Finkelstein and Nathaniel Hendren, is to include these positive external effects to measure the willingness to pay of everyone in the population affected by the policy, including those indirectly affected by it.²⁷ Therefore, the magnitude of the welfare effect will depend on the summation of both positive and negative fiscal externalities borne by the externally affected population.

²⁶ Kumar, D., Pratap, B., & Aggarwal, A. (2021). Public trust in state governments in India: Who are more confident and what makes them confident about the government? *Asian Journal of Comparative Politics*, 6(2), 154–174. <https://doi.org/10.1177/2057891119898763>.

²⁷ Finkelstein, Amy, and Nathaniel Hendren. "Welfare Analysis Meets Causal Inference." *The Journal of Economic Perspectives* 34, no. 4 (2020): 146–67. <https://www.jstor.org/stable/26940894>.

Conclusively, while this mechanism is not all-encompassing, since estimating the welfare impact of a subsidised product like Govt-subsidised pad can be challenging, however, it does go a long way in including substantial objects needed for welfare analysis.

8. THE WAY FORWARD

Studies have shown a direct connection between poor menstrual hygiene and a lower prevalence of reproductive tract infections.²⁸ Therefore, belonging to the educated strata, it becomes our responsibility to educate others about it. Based on the problems faced by women, the following steps can be taken to ameliorate their situation.

8.1 Creating awareness about Jan Aushadhi Suvidha Oxo-biodegradable sanitary napkin scheme

Since there is sheer lack of awareness amongst the women about the scheme, it calls for a proper mechanism through which such essential awareness can be spread. The Covid-19 pandemic made evident the role that misinformation, or no information can play in exacerbating the health conditions of people.²⁹ The Covid-19 pandemic showed us that the government is capable of parting authentic information to every nook and cranny of this country. Those channels of parting information thus made, should be utilised for spreading information about this scheme. The government's responsibility is not limited to the launching of a welfare-scheme, but extends to ensuring that its benefits are availed by the targeted population. Further, the local media, shopkeepers, doctors, etc. should all be engaged in the process of spreading the word.

Menstrual Hygiene camps ought to be conducted by students from universities all over the country. The state can direct at least the government universities to take up initiative for spreading awareness on menstrual hygiene. Volunteers from National Service Scheme

²⁸ B. Torondel et. al., *Association between unhygienic menstrual management practices and prevalence of lower reproductive tract infections: a hospital-based cross-sectional study in Odisha, India*, 18 BMC INFECT. DIS., 1-12 (2018).

²⁹ *Lessons from the COVID-19 pandemic for tackling the climate crisis*, UNICEF (Aug. 13, 2020), <https://www.unicef.org/stories/lessons-covid-19-pandemic-tackling-climate-crisis>.

Programme³⁰ can also be taken to conduct this drive. The Universities and the students which take up such initiative can be given certificates acknowledging their good work which can act as an incentive to take up similar initiatives.

8.2 Jan Aushadhi Centres can play an important role

8.2.1 Awareness initiative

These centres are strategically located and if all these centres put up posters, hold camps and even display the product outside their shops, it will hugely benefit women and spread the word about the scheme. Such posters in and around the shop will attract women, making them aware of such a scheme.

8.2.2 Female attendants

Females often feel embarrassed to buy pads from the male pharmacists. If female attendants are present at Jan Aushadhi Centres, it would encourage more ladies to buy sanitary pads. These female attendants can also educate them regarding Menstrual hygiene practices and the ladies will be able to share their grievances with them. To low-income women visitors especially, the female attendants can talk about the scheme, whereas any word by the male pharmacist can make the woman uncomfortable.

8.2.3 Jan Aushadhi Sugam

This mobile application called 'Jan Aushadhi Sugam' which helps people locate the nearest Jan Aushadhi store around them can also be used.³¹ Those owning smartphones should be encouraged to guide the underprivileged regarding generic medicines available in these stores along with the sanitary pad scheme. Doctors should be encouraged to educate women visitors about the same.

³⁰ NATIONAL SERVICE SCHEME, <https://nss.gov.in/nss-volunteer>, (last visited Dec. 28, 2021).

³¹ PRADHAN MANTRI JAN AUSHADHI PARIYOJANA (PMJP), <http://janaushadhi.gov.in/pmjy.aspx> (last visited Sept. 15, 2021).

8.3 Review of the already existing schemes

The pads which are provided by the government under the Jan Aushadhi Suvidha Oxy-biodegradable scheme are regular-sized pads. If the regular-sized pads catered to the needs of all women, then companies would not have invested so much capital into making different-sized pads either. A one-size-fits-all solution has led to women not using pads at all due to fear of leakage. Most of the studies show that women find most distressing the fact that the blood has leaked onto their clothes.³²

If women do not use the regular sized pads for fear of leakage and are still forced to use pieces of cloth, then the scheme cannot be considered a success. Therefore, it is important that review studies be conducted so that problems of the product launched and scheme are known to address grievances.

8.4 Making menstrual education gender-neutral

It is rightly said that *“there comes a point where we need to stop just pulling people out of the river, we need to go upstream and find out why they’re falling in.”* It is our education system which needs to teach menstruation and hygiene to not just girls; but to boys as well. Studies have time and again highlighted the importance of menstrual education for adolescent boys.³³ If boys are educated about the same, they can further the cause and become spreaders of menstrual hygiene for the women in their family.³⁴ A change of attitude for both men and women is the need of the hour.

8.5 Alternatives to using sanitary pads

While India has considered sanitary napkins to be a solution to poor menstrual hygiene practices and period poverty, it is important to note that Menstrual cup is considered to be a safe option as well.³⁵ While sanitary napkins consist of up to 90% plastic and cause problems for waste management worldwide,³⁶ menstrual cups can be more environment-friendly and

³² JEN GUNTER, THE VAGINA BIBLE (2019).

³³ M. Gundi & M. A. Subramanyam, *Curious eyes and awkward smiles: Menstruation and adolescent boys in India*, 85 J. ADOLESC., 80-95 (2020).

³⁴ L. Mason et. al., *‘We do not know’: a qualitative study exploring boys perceptions of menstruation in India*, 14 REPROD. HEALTH, 1-9 (2017).

³⁵ Van Eijk et. al., *Menstrual cup use, leakage, acceptability, safety, and availability: a systematic review and meta-analysis*, 4 LANCET PUBLIC HEALTH, e376-e393 (2019).

³⁶ A. Pachauri, et. al, *Safe and sustainable waste management of self care products*, BR. MED. J, 365 (2019).

cost-saving. While using hygienic cloth can also act as a safe menstrual product, it is important that the hygiene practices be strictly adhered to. Other menstrual products like tampons, reusable pads, reusable menstrual underwear, etc. are also viable alternatives which people are unaware of. Informed choice for women will always help minimise the damage to environment and ensure their health does not degrade.³⁷

9. CONCLUSION

This research highlights the existence of a substantial percentage of women who are still using unhygienic cloth during their periods, the existence of widely prevalent taboos beleaguering menstruation and the unawareness of the government sponsored schemes for low-priced sanitary napkins. This research has assumed that the data provided by women subjects is accurate to the best of their knowledge and has attempted to present the ground-level situation of menstrual hygiene amongst women of low-income class. It has further presented suggestive measures for the government as well as those which can be undertaken at individual or community level. It is important that this issue gains priority and women understand that menstrual hygiene is their right, and period poverty should not be able to deprive them of this. At the same time, it is proposed that children be taught these practices in their school at an early age and the root cause of the taboos and lack of education in this arena be rectified. An efficient policy measure that rectifies this issue can go a long way in bettering the state of health of women.

³⁷ MAHAJAN., *supra* note 20.