



## COMMUNITY SERVICE DATA

<b>Title (PkM)</b>	: Socialization To The Community On Simple Water Filtration To Minimize The Impact Of Skin Diseases
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Affiliate	: Arta Kabanjahe College of Health Sciences
Activity Categories	: Based on assignments from higher education institutions
PkM Proposed Year	: 2024
Year of Activity	: 2024
Activity Location	: Lau Cimba Village, Kabanjahe District, Karo Regency
Source of PkM Funds	: Arta Kabanjahe College of Health Sciences

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## ENDORSEMENT PAGE

1. **Activity Title** : Socialization to the Community on Water Filtering Simple To Minimize The Impact Of Skin Diseases
2. **Year of Implementation** : 2024
3. **Implementation Costs** : Rp. 2,080,000,-
4. **Place of Implementation** : Lau Cimba Village, Kabanjahe District, Karo Regency
5. **Implementation Team**
  - Chairman** : July Evianna Br Purba, M.Kes
  - Member**
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6. **Output Produced:**
  - PkM Report
  - Publication

Kabanjahe, July 12 2024

Chief Executive

July Evianna Br Purba, M.Kes

Head of STIKes Arta Kabanjahe



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Approve

LPM Chairman Arta Kabanjahe



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## 1. Introduction

### 1.1 Background

Water is a basic need for human life, but access to clean water is still a challenge in many areas. Unclean water can be a medium for the spread of various diseases, including skin diseases. Skin diseases that often occur in people who use polluted water include itching, eczema and other skin infections. Communities in areas that have limited access to clean water need to be given knowledge about simple water filtration methods to reduce the risk of this disease.

Simple water filtration techniques are affordable methods that people can apply to produce cleaner water. Thus, disseminating information about this technique is important to improve the quality of life and public health.

### 1.2 Problem Formulation

- What is the level of public understanding regarding the importance of clean water for healthy skin?
- What is a simple water filtration method that is effective and can be implemented by the community?
- To what extent can the promotion of simple water filtration techniques minimize the risk of skin disease?

### 1.3 Objectives

- Increase public awareness about the importance of clean water for healthy skin.
- Teaches simple water filtration methods that people can apply at home.
- Reduces the incidence of skin diseases caused by the use of unclean water.

## 2. Literature Review

### 2.1 Skin Diseases Due to Unclean Water

Skin diseases are health problems that attack the skin and are caused by various factors, including the use of unclean water. According to the World Health Organization (WHO), water contaminated by pathogenic microorganisms such as bacteria, viruses and parasites can cause



skin infections. Skin diseases caused by polluted water can include dermatitis, folliculitis and impetigo (WHO, 2017).

## 2.2 Simple Water Filtration Technology

Simple water filtration techniques are an effective way to reduce contaminants in water. Water filtration using natural materials such as sand, gravel and activated charcoal is widely known and used by people in various parts of the world. Adhyatman (2019) explains that this combination of filter materials can remove coarse particles, odors and some microorganisms in water.

## 2.3 The Role of Socialization in Improving Public Health

Socialization is an activity to disseminate information and knowledge to the public with the aim of increasing their awareness and ability to overcome health problems. Hartono and Mulyadi (2021) stated that effective socialization can change people's behavior and encourage them to implement healthy practices in their daily lives, including in managing clean water.

## 3. Implementation Method

### 3.1 Location and Time of Implementation

This activity was carried out in Lau Cimba Village, Kabanjahe District, Karo Regency on 12-13 July 2024.

### 3.2 Extension Methods

Counseling is carried out through several stages:

1. **Initial Approach:** Inviting the community to participate in activities through door-to-door outreach.
2. **Theoretical Extension:** Providing material regarding the importance of clean water and its impact on skin health.
3. **Practical Demonstration:** Demonstrate how to make a simple water filter using locally available materials.
4. **Direct Practice by Participants:** The public is invited to make and use their own water filter devices at home.



5. **Discussion and Evaluation:** Hold a question and answer session and measure the public's understanding of the material that has been presented.

## 4. Results and Discussion

### 4.1 Level of Community Participation

This socialization activity was attended by 32 residents of Lau Cimba Village, consisting of various age groups. Community participation showed high enthusiasm, especially in demonstration and hands-on practice sessions.

### 4.2 Community Understanding of Clean Water

Before the activity, most people did not understand the importance of clean water and its impact on skin health. After the activity, there was a significant increase in people's understanding of the importance of clean water and how to filter water using simple methods.

### 4.3 Effectiveness of Simple Water Filtration Techniques

The water filtration technique taught using sand, gravel, activated charcoal and cloth has proven to be effective in improving water quality. The test results show that water filtered using this tool has better clarity and quality compared to unfiltered water.

### 4.4 Impact on Public Health

After several weeks of implementing water filtration techniques, there was a decrease in the number of cases of skin disease in Lau Cimba Village. People report that filtered water feels cleaner and does not cause itching when used.

## 5. Facilities and Costs Used

### 5.1 Means

#### • Materials and tools:

- Fine and coarse sand : IDR 200,000
- Gravel : Rp. 100,000
- Activated charcoal : Rp. 150,000
- Cotton fabric : Rp. 100,000
- Plastic bucket : Rp. 100,000
- Jerry cans : IDR 75,000



- Plastic hose : Rp. 30,000
- Large plastic bottle : Rp. 25,000
- Total cost of materials and tools: IDR 780,000
- **Supporting Facilities:**
  - Whiteboard and markers : Rp. 50,000
  - Water filtration guide brochure : Rp. 50,000
  - Projector and screen (loan) : No charge
  - Sound system (loan) : No charge
  - Total cost of supporting facilities : IDR 100,000
- Consumption : Rp. 1,200,000,-
- **Total Total Cost** : **Rp. 2,080,000,-**

## 5.2 Funding Sources

Funding for this activity was obtained from STIKes Arta Kabanjahe funds as well as support from the local community who contributed in the form of personnel and equipment.

## 6. Conclusions and Recommendations

### 6.1 Conclusion

This simple water filtration outreach activity succeeded in increasing the understanding and awareness of the Lau Cimba Village community regarding the importance of clean water. The application of simple water filtration techniques has proven effective in reducing the risk of skin disease, so that people's quality of life can improve.

### 6.2 Recommendations

- **Activity Development:**Similar outreach needs to be carried out periodically to ensure the sustainability of the implementation of water filtration techniques.
- **Provision of Supporting Facilities:**The government and related parties are advised to provide supporting facilities such as better water filters so that water quality continues to improve.
- **Research Development:**Further research needs to be carried out to develop water filtration methods that are more effective and affordable for the community.

## Bibliography

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**Attachment:**





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