

**CONTENTS**

	<b>Page</b>
<b>CONTENTS.....</b>	4
<b>LIST OF TABLES AND FIGURES.....</b>	6
<b>LIST OF ABBREVIATIONS .....</b>	8
<b>ACKNOWLEDGMENTS .....</b>	9
<b>ABSTRACT.....</b>	11
<b>CHAPTER I. INTRODUCTION.....</b>	12
A. Background .....	12
B. Relevance .....	15
C. Problem Statement.....	16
D. Research Objective .....	17
E. Research Impact.....	17
F. Originality.....	18
<b>CHAPTER II LITERATURE REVIEW .....</b>	20
A. Literature Review .....	20
1. Concept of Fidelity .....	20
2. Dengue and Severe Dengue .....	20
3. Applying Wolbachia to Eliminate Dengue (AWED).....	21
B. Theoretical Framework.....	23
C. Conceptual Framework.....	24
D. Research Questions.....	26
<b>CHAPTER III. RESEARCH METHOD .....</b>	27
A. Research Type and Design .....	27
B. Research Settings and Time .....	27
1. Jetis sub-district .....	29
2. Sewon sub-district.....	31
3. Kasihan sub-district .....	32
C. Research Subjects .....	33
1. Population .....	33
2. Sample Size.....	34
3. Sampling Technique .....	34
D. Identification of Research Variables .....	37
E. Operational Definition of Variables .....	37
F. Data Collection and Research Instrument.....	40
G. Data Analysis Plan .....	42
H. Research Ethics .....	44



<b>CHAPTER IV. RESULT AND DISCUSSION.....</b>	<b>45</b>
<b>A. Result Findings.....</b>	<b>45</b>
1. Sociodemographic profile of study participants .....	45
2. Adherence .....	48
3. Potential moderators .....	117
<b>B. Discussion.....</b>	<b>127</b>
<b>CHAPTER V. CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>134</b>
<b>A. Conclusions .....</b>	<b>135</b>
<b>B. Recommendations.....</b>	<b>135</b>
<b>REFERENCES.....</b>	<b>137</b>
<b>APPENDIX.....</b>	<b>142</b>



UNIVERSITAS  
GADJAH MADA

The Fidelity of Wolbachia Technology Implementation for Controlling Dengue Case in Bar  
Region of Yogyakarta (A Qualitative Case Study of WoW Mantul Program Implementation  
Sewon,  
and Kasihan Sub-Districts)

I, Special  
Jetis,

Mandira Ajeng Rachmayanthy, Prof. dr. Adi Utarini, M.Sc, MPH, Ph.D/dr. Riris Andono Ahmad, MD, MPH, Ph.D.

Universitas Gadjah Mada | [www.gadjahmada.ac.id](http://www.gadjahmada.ac.id) | [www.sosmed.gadjahmada.ac.id](http://www.sosmed.gadjahmada.ac.id)

## LIST OF TABLES AND FIGURES

<b>Table 1. 1.</b> Research impact .....	18
<b>Table 1. 2.</b> Research originality .....	19
<b>Table 2. 1.</b> A conceptual framework for implementation fidelity and their definitions.....	25
<b>Table 3. 1.</b> Research subject.....	35
<b>Table 3. 2.</b> Operational definition of variables.....	38
<b>Table 3. 3</b> Data collection methods, objectives and informants or events .....	41
<b>Table 3. 4</b> Phases of thematic analysis.....	43
<b>Table 4. 1.</b> Characteristics of study sites in Bantul district .....	45
<b>Table 4. 2</b> Characteristics of informants in in-depth interviews .....	46
<b>Table 4. 3</b> Several changes in the implementation of Wolbachia technology in Bantul.....	48
<b>Table 4. 4</b> Pre-released Implementation of Wolbachia intervention through the WoW Mantul program .....	50
<b>Table 4. 5</b> Released Implementation of Wolbachia intervention through the WoW Mantul program .....	72
<b>Table 4. 6</b> Post Released Implementation of the WoW Mantul program .....	93
<b>Table 4. 7</b> Frequency during Wolbachia technology program implementation.....	104
<b>Table 4. 8</b> Duration during Wolbachia technology program implementation .....	112
<b>Table 4. 9</b> Comparison of study sites based on model implementation and barriers .....	125
<b>Figure 1. 1.</b> Total of DHF cases in 2022 at Yogyakarta Province.....	12
<b>Figure 1. 2.</b> Total of DHF cases per year in Jetis, Sewon, and Kasihan sub-district.....	13
<b>Figure 2. 1.</b> Theoretical framework adopted from implementation fidelity framework (Carroll et al, 2007) .....	23
<b>Figure 2. 2.</b> Conceptual framework for fidelity of the implementation .....	24



<b>Figure 3. 1.</b> Geographical condition of Bantul district .....	28
<b>Figure 3. 2.</b> Climatological conditions of Bantul district .....	29
<b>Figure 3. 3.</b> Map of Jetis sub-district .....	30
<b>Figure 3. 4.</b> Statistical data on the population of Yogyakarta province.....	31
<b>Figure 3. 5.</b> Map of Sewon sub-district .....	32
<b>Figure 3. 6.</b> Map of Kasihan sub-district .....	33

<b>Figure 4. 1.</b> Dissemination flow in each study site .....	53
<b>Figure 4. 2.</b> The capacity building for cadres flow .....	58
<b>Figure 4. 3.</b> Flow of mapping and OTA identification .....	63
<b>Figure 4. 4.</b> Flow of initial release phase .....	73
<b>Figure 4. 5.</b> Flow of bucket replacement phase .....	77
<b>Figure 4. 6.</b> Process of bucket replacement at hamlet level .....	82
<b>Figure 4. 7.</b> The flow of mosquito monitoring.....	96
<b>Figure 4. 8.</b> The flow of bucket withdrawal process.....	100
<b>Figure 4. 9</b> Coverage percentage of infected-Wolbachia mosquitos' population.....	109
<b>Figure 4. 10</b> Coverage percentage at Jetis sub-district.....	109
<b>Figure 4. 11</b> Coverage percentage at Sewon sub-district.....	110
<b>Figure 4. 12</b> Coverage percentage at Kasihan sub-district.....	111
<b>Figure 4. 13</b> Coverage of infected-Wolbachia mosquitos' population at Jetis sub-district ..	115
<b>Figure 4. 14</b> Coverage of infected-Wolbachia mosquitos' population at Sewon sub-district .....	115
<b>Figure 4. 15</b> Coverage of infected-Wolbachia mosquitos' population at Kasihan sub-district .....	116