**MODULE 4**

[**https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/77f4d2fabe784caa86c345ea350c4d42/?activate\_block\_id=block-v1%3ATDR%2BIR%2B2016%2Btype%40sequential%2Bblock%4077f4d2fabe784caa86c345ea350c4d42**](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/77f4d2fabe784caa86c345ea350c4d42/?activate_block_id=block-v1%3ATDR%2BIR%2B2016%2Btype%40sequential%2Bblock%4077f4d2fabe784caa86c345ea350c4d42)

[Course](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/)  [Module 4: Implementation Research Outcomes](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@chapter+block@ddde7302c3d443559d695bb1122135e5)  [Introduction](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@sequential+block@77f4d2fabe784caa86c345ea350c4d42)  Module objectives

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## Module objectives

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### General objectives of this module:

* Distinguish between efficacy of an intervention and implementation effectiveness
* Learn about implementation research outcomes (IROs) through examples
* Measure implementation research outcomes (IROs)

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<https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/77f4d2fabe784caa86c345ea350c4d42/?child=first>

0

00:00:04,251 --> 00:00:07,026

Hi, my name is Pascale Allotey.

1

00:00:07,226 --> 00:00:10,226

I am Professor of Public Health, Head of Global Public Health,

2

00:00:10,426 --> 00:00:14,709

and Associate Director of the South East Asia Community Observatory

3

00:00:14,909 --> 00:00:17,472

at the Monash University campus in Malaysia.

4

00:00:17,672 --> 00:00:19,985

This is the fourth of the five modules

5

00:00:20,185 --> 00:00:24,272

of the Massive Open Online Course on implementation research,

6

00:00:24,472 --> 00:00:27,472

developed by the Special Program for Research and Training

7

00:00:27,672 --> 00:00:29,175

in Tropical Diseases.

8

00:00:29,375 --> 00:00:32,375

This module will take you through one of the most important

9

00:00:32,575 --> 00:00:35,865

but also most challenging areas of implementation research,

10

00:00:36,065 --> 00:00:39,614

namely, how to evaluate implementation research

11

00:00:39,814 --> 00:00:45,109

by clearly articulating appropriate implementation research outcomes.

12

00:00:45,288 --> 00:00:48,690

An important point to recap here is that the purpose of

13

00:00:48,890 --> 00:00:52,902

implementation research is to address those challenges that enable

14

00:00:53,140 --> 00:00:55,990

interventions to reach target populations.

15

00:00:56,190 --> 00:00:59,190

Therefore the success of implementation strategy

16

00:00:59,390 --> 00:01:01,690

is not necessarily measured

17

00:01:01,890 --> 00:01:04,890

in the same way as the success of the intervention.

18

00:01:05,090 --> 00:01:07,202

The question we want to answer here

19

00:01:07,390 --> 00:01:11,290

is how do we assess research that addresses implementation problems

20

00:01:11,490 --> 00:01:15,745

independent from those that study the efficacy of the intervention.

21

00:01:15,945 --> 00:01:18,120

The module is presented by

22

00:01:18,320 --> 00:01:21,420

Dr. Olakunle Alonge and Dr. Vivian Go,

23

00:01:21,620 --> 00:01:24,208

and consists of three chapters.

24

00:01:24,408 --> 00:01:28,598

The first chapter distinguishes between efficacy of an intervention

25

00:01:28,798 --> 00:01:30,994

and implementation effectiveness.

26

00:01:31,194 --> 00:01:35,793

The second describes examples of implementation research outcomes.

27

00:01:35,993 --> 00:01:38,462

And the third describes how to measure

28

00:01:38,662 --> 00:01:40,650

implementation research outcomes.

29

00:01:40,850 --> 00:01:43,055

The module is developed to be interactive,

30

00:01:43,255 --> 00:01:46,255

with a number of journal articles that have been included

31

00:01:46,455 --> 00:01:48,244

as required readings.

32

00:01:48,444 --> 00:01:51,866

At the end of module 4, two papers will be presented

33

00:01:52,066 --> 00:01:54,570

and you will be required to:

34

00:01:54,770 --> 00:01:57,770

identify an implementation issue in the case example

35

00:01:57,970 --> 00:02:00,746

and the implementation strategy,

36

00:02:00,972 --> 00:02:04,659

identify the implementation research outcomes,

37

00:02:04,872 --> 00:02:08,545

describe how these outcomes were measured,

38

00:02:08,745 --> 00:02:12,743

and, finally, suggest alternative approaches

39

00:02:12,943 --> 00:02:15,781

for assessing implementation research outcomes.

40

00:02:15,981 --> 00:02:20,035

If you have been working your way systematically through the course,

41

00:02:20,235 --> 00:02:22,140

I hope you're growing in confidence

42

00:02:22,340 --> 00:02:25,340

about undertaking implementation research.

43

00:02:25,540 --> 00:02:27,828

If this is your first visit to the site,

44

00:02:28,028 --> 00:02:29,619

very warm welcome,

45

00:02:29,819 --> 00:02:32,819

and I would strongly encourage you to browse through

46

00:02:33,019 --> 00:02:34,856

the first three modules

47

00:02:35,056 --> 00:02:37,394

that introduce implementation research,

48

00:02:37,594 --> 00:02:40,986

that provide an overview of how to address different contexts

49

00:02:41,186 --> 00:02:43,410

in which implementation research projects

50

00:02:43,611 --> 00:02:45,586

can be designed and undertaken,

51

00:02:45,786 --> 00:02:47,873

and help you to identify and design

52

00:02:48,098 --> 00:02:50,623

the appropriate implementation strategy.

53

00:02:50,823 --> 00:02:52,173

Have fun!

[**https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/5c72bfffd2b8428cbcba76e1cf04ec91/?child=first**](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/5c72bfffd2b8428cbcba76e1cf04ec91/?child=first)

[Course](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/)  [Module 4: Implementation Research Outcomes](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@chapter+block@ddde7302c3d443559d695bb1122135e5)  [Distinguish between efficacy of an intervention and implementation effectiveness](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@sequential+block@5c72bfffd2b8428cbcba76e1cf04ec91) Distinguish between efficacy of an intervention and implementation effectiveness

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## Distinguish between efficacy of an intervention and implementation effectiveness

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### Objectives

At the end of this section you will be able to:

* Describe why efficacy or effectiveness of an intervention is not the same as implementation effectiveness
* Define and conceptualize implementation research outcomes (IROs) as intermediate outcomes

### Distinguish between efficacy of an intervention and implementation effectiveness

0

00:00:04,480 --> 00:00:07,305

Welcome to the first chapter of module 4

1

00:00:08,284 --> 00:00:11,197

where we are looking at implementation research outcomes.

2

00:00:11,409 --> 00:00:13,859

For this chapter we are going to focus

3

00:00:14,033 --> 00:00:15,871

on making a distinction between

4

00:00:16,075 --> 00:00:18,175

intervention efficacy,

5

00:00:18,328 --> 00:00:19,816

intervention effectiveness

6

00:00:20,020 --> 00:00:22,470

and implementation effectiveness.

7

00:00:23,662 --> 00:00:26,174

The chapter has been divided into two sections.

8

00:00:26,410 --> 00:00:29,810

So in the first section we try to

9

00:00:30,010 --> 00:00:32,872

find out why implementation effectiveness

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00:00:33,070 --> 00:00:36,182

is not the same thing as intervention effectiveness

11

00:00:36,375 --> 00:00:38,175

or intervention efficacy.

12

00:00:38,766 --> 00:00:41,929

And then in the second chapter, we are going to be defining

13

00:00:42,131 --> 00:00:44,069

implementation research outcomes.

14

00:00:44,260 --> 00:00:48,247

And we’re going to be conceptualizing them as intermediate outcomes

15

00:00:48,498 --> 00:00:51,698

of population health outcomes or individual health outcomes

16

00:00:51,910 --> 00:00:54,485

like morbidity and mortality.

17

00:00:54,652 --> 00:00:58,840

Before we go on, I would like you to take a short quiz

18

00:00:59,607 --> 00:01:01,832

to kind of gain our knowledge of the concept

19

00:01:02,029 --> 00:01:03,754

that we'll be presenting today.

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00:01:03,941 --> 00:01:06,491

If you may, these are some of the key messages

21

00:01:06,691 --> 00:01:08,703

that we would like you to take with you

22

00:01:08,892 --> 00:01:10,792

at the end of this chapter.

23

00:01:11,843 --> 00:01:14,730

So, the first question asks

24

00:01:14,926 --> 00:01:18,014

if implementation effectiveness could be defined

25

00:01:18,201 --> 00:01:21,926

as the impact of an intervention under a controlled setting.

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00:01:22,117 --> 00:01:25,142

So we would like you to answer true or false to that question.

27

00:01:27,123 --> 00:01:29,910

The second question is asking you

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00:01:30,100 --> 00:01:33,438

if implementation research outcomes are used to assess

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00:01:33,640 --> 00:01:37,728

the impact of an intervention on individual or population health.

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00:01:40,037 --> 00:01:44,250

The third question is asking whether implementation research outcomes

31

00:01:44,446 --> 00:01:47,383

could be conceptualized as the most proximal outcome

32

00:01:47,583 --> 00:01:49,933

of an implementation process.

33

00:01:51,046 --> 00:01:53,208

And then, the last question is asking

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00:01:53,425 --> 00:01:56,237

if an effective intervention may not lead

35

00:01:56,416 --> 00:01:58,154

to a desired outcome

36

00:01:58,372 --> 00:02:00,672

because of the implementation failure.

37

00:02:00,905 --> 00:02:03,905

So we'd like you to take some time to reflect on these questions

38

00:02:04,096 --> 00:02:06,583

and to answer true or false to these questions.

39

00:02:07,965 --> 00:02:11,353

<i>So we have all seen different examples in literature

40

00:02:11,544 --> 00:02:14,544

Of how an efficacious intervention<

41

00:02:14,801 --> 00:02:18,514

or an effective intervention does not produce the result

42

00:02:18,764 --> 00:02:21,089

or the impact that we want or we expect to see

43

00:02:21,292 --> 00:02:23,029

within the population.

44

00:02:23,259 --> 00:02:26,159

For example, we know of

45

00:02:26,373 --> 00:02:29,398

the onchocerca volvulus problem in most parts

46

00:02:29,590 --> 00:02:32,140

of lower/middle income countries in Africa

47

00:02:32,343 --> 00:02:34,781

and some parts of Latin America.

48

00:02:34,959 --> 00:02:37,734

<i>We know that ivermectin is a very effective drug.</i>

49

00:02:37,958 --> 00:02:39,520

<i>or very efficacious drug</i>

50

00:02:39,689 --> 00:02:42,451

<i>able to stop the transmission of the microfilariae</i>

51

00:02:42,624 --> 00:02:45,112

<i>that causes this deadly disease.</i>

52

00:02:46,061 --> 00:02:49,874

<i>However, in spite of what we know of the efficacy and of efforts</i>

53

00:02:50,096 --> 00:02:53,521

<i> that have been made to implement this efficacious intervention</i>

54

00:02:53,711 --> 00:02:55,036

<i>in different settings,</i>

55

00:02:55,220 --> 00:02:58,032

<i>we still have millions of people that are still suffering</i>

56

00:02:58,239 --> 00:03:00,764

<i>from "river blindness", which is one of the consequences</i>

57

00:03:00,964 --> 00:03:03,389

<i> of infestation with onchocerca volvulus.</i>

58

00:03:03,573 --> 00:03:07,123

<i>The question is why does an efficacious intervention</i>

59

00:03:07,323 --> 00:03:09,961

<i>not lead to the widespread impact</i>

60

00:03:10,154 --> 00:03:11,404

<i>that we expect to see?</i>

61

00:03:11,600 --> 00:03:14,075

<i>So, most of these questions are actually asking</i>

62

00:03:14,257 --> 00:03:15,945

<i>about implementation failure.</i>

63

00:03:16,149 --> 00:03:18,161

<i>Because it takes more than just having </i>

64

00:03:18,362 --> 00:03:21,537

<i>an efficacious intervention for you to have the impact </i>

65

00:03:21,736 --> 00:03:23,786

<i>that you hope to see in the population.</i>

66

00:03:23,986 --> 00:03:26,586

<i>Let's take another example with malaria. </i>

67

00:03:26,786 --> 00:03:30,749

For instance, with malaria we know that a bed net works

68

00:03:31,000 --> 00:03:32,975

<i>in preventing mosquito bites.</i>

69

00:03:33,159 --> 00:03:35,247

<i>Mosquito is the vector that transmits</i>

70

00:03:35,440 --> 00:03:37,865

<i> the plasmodium parasite that causes malaria.</i>

71

00:03:38,086 --> 00:03:40,811

<i>However, despite investments having been made</i>

72

00:03:40,995 --> 00:03:43,408

<i>into providing bed nets in endemic countries</i>

73

00:03:43,608 --> 00:03:45,833

we still have the scourge of malaria

74

00:03:46,044 --> 00:03:49,006

<i>and millions of children, in fact billions,</i>

75

00:03:49,206 --> 00:03:52,406

<i>millions of billions of people still suffer from malaria</i>

76

00:03:52,606 --> 00:03:54,419

<i> every year.</i>

77

00:03:54,615 --> 00:03:56,440

<i>So the question yet again is </i>

78

00:03:56,640 --> 00:03:58,953

<i>why does that efficacious intervention</i>

79

00:03:59,153 --> 00:04:01,778

<i>that is to say the insecticide treated bed net</i>

80

00:04:01,965 --> 00:04:04,340

<i>not lead into the population impact</i>

81

00:04:04,562 --> 00:04:05,849

<i>that we hope to see.</i>

82

00:04:06,030 --> 00:04:08,893

<i>Most of these questions are due to implementation failure.</i>

83

00:04:09,077 --> 00:04:11,927

<i>So what we are saying here is that we find that we have</i>

84

00:04:12,177 --> 00:04:15,502

<i>an efficacious intervention does not necessarily translate</i>

85

00:04:15,713 --> 00:04:18,463

<i>to impact at the population level.</i>

86

00:04:18,663 --> 00:04:22,376

<i>Obviously some sort of activities have to take the intervention</i>

87

00:04:22,591 --> 00:04:25,591

<i>from the laboratory, from the design stage</i>

88

00:04:25,791 --> 00:04:27,466

<i>to the population that needs it.</i>

89

00:04:27,642 --> 00:04:30,842

<i>And these are some of the things that implementation research</i>

90

00:04:31,028 --> 00:04:32,215

<i> tries to address.</i>

91

00:04:32,395 --> 00:04:34,232

<i>We really try to look at the effectiveness</i>

92

00:04:34,415 --> 00:04:36,490

<i>of the implementation activities</i>

93

00:04:36,692 --> 00:04:39,305

<i>or set of strategies that have been put in place</i>

94

00:04:39,505 --> 00:04:42,817

<i>to deliver an efficacious or an effective intervention.</i>

95

00:04:43,044 --> 00:04:46,244

Let's take a pause to define

96

00:04:46,444 --> 00:04:48,406

efficacy of an intervention

97

00:04:48,602 --> 00:04:50,889

and to define intervention effectiveness

98

00:04:51,091 --> 00:04:53,154

and distinguish these two definitions

99

00:04:53,354 --> 00:04:56,141

from implementation effectiveness.

100

00:04:56,341 --> 00:04:59,116

So, intervention efficacy.

101

00:04:59,316 --> 00:05:03,204

This is the evidence for the effects of an intervention

102

00:05:03,387 --> 00:05:05,312

under controlled settings.

103

00:05:05,492 --> 00:05:09,855

That is to say that you control all set of implementation activities,

104

00:05:10,055 --> 00:05:12,380

you control the context,

105

00:05:12,561 --> 00:05:15,548

you choose a special

106

00:05:15,748 --> 00:05:16,898

population group

107

00:05:17,118 --> 00:05:19,743

able to test whether an intervention works or not.

108

00:05:19,943 --> 00:05:23,505

For instance, the initial clinical trials

109

00:05:23,705 --> 00:05:26,705

that were done to determine whether ivermectin works

110

00:05:26,905 --> 00:05:29,393

to stop the transmission of microfilariae

111

00:05:29,580 --> 00:05:33,105

that causes onchocerciasis, could be an efficacy trial.

112

00:05:33,305 --> 00:05:36,818

The next group is the intervention effectiveness research.

113

00:05:37,005 --> 00:05:39,430

Here you move an efficacious intervention

114

00:05:39,630 --> 00:05:41,255

from the controlled setting

115

00:05:41,455 --> 00:05:43,630

and you move it into the general population.

116

00:05:44,429 --> 00:05:48,204

However, you still limit the set of implementation activities

117

00:05:48,404 --> 00:05:50,866

to the barest minimum possible

118

00:05:51,066 --> 00:05:54,066

to successfully implement that efficacious intervention

119

00:05:54,266 --> 00:05:56,379

within the general population.

120

00:05:56,575 --> 00:05:59,587

So, you see here, you have moved from a carefully selected

121

00:05:59,787 --> 00:06:02,662

population group to broader population

122

00:06:02,850 --> 00:06:05,800

where the disease for which the intervention has been placed

123

00:06:06,000 --> 00:06:06,962

might be endemic.

124

00:06:07,162 --> 00:06:10,287

However, you still control some of the implementation activities

125

00:06:10,487 --> 00:06:12,700

and the context in which the research is done.

126

00:06:12,900 --> 00:06:15,612

Implementation effectiveness, however,

127

00:06:15,812 --> 00:06:17,862

really is focused on generating evidence

128

00:06:18,036 --> 00:06:21,136

for the set of implementation activities or strategies

129

00:06:21,336 --> 00:06:24,236

that you put in place to deliver

130

00:06:24,436 --> 00:06:27,873

an efficacious intervention within a new setting

131

00:06:28,073 --> 00:06:30,161

or within broader population groups

132

00:06:30,361 --> 00:06:34,561

under the real world conditions in which those populations exist.

133

00:06:35,583 --> 00:06:38,583

So for instance, here you are no longer interested

134

00:06:38,783 --> 00:06:41,770

in controlling the implementation activities or the strategies,

135

00:06:41,958 --> 00:06:43,371

or controlling the context.

136

00:06:43,571 --> 00:06:46,908

In fact, that is the focus of your study in most cases.

137

00:06:47,633 --> 00:06:49,233

<i>So let's take a pause here </i>

138

00:06:49,433 --> 00:06:51,758

<i>and use an example to illustrate what we mean.</i>

139

00:06:51,971 --> 00:06:54,233

<i>So let's go back to the onchocerca volvulus example</i>

140

00:06:54,433 --> 00:06:55,833

<i>that we used earlier on.</i>

141

00:06:56,047 --> 00:06:59,384

<i>We said that conducting clinical trials to determine</i>

142

00:06:59,584 --> 00:07:02,009

<i>the efficacy of ivermectin</i>

143

00:07:02,209 --> 00:07:04,309

<i>on the transmission of microfilariae </i>

144

00:07:04,491 --> 00:07:07,491

<i>would be an example of - intervention efficacy [research]</i>

145

00:07:07,691 --> 00:07:10,403

<i>and then taking that efficacious intervention</i>

146

00:07:10,575 --> 00:07:13,750

<i> that is the ivermectin, to the population,</i>

147

00:07:13,950 --> 00:07:16,950

<i>maybe you do in a community a trial</i>

148

00:07:17,150 --> 00:07:20,349

<i>where you randomly approach some community to receive ivermectin</i>

149

00:07:20,562 --> 00:07:23,774

<i>and then some other community does not receive ivermectin.</i>

150

00:07:23,974 --> 00:07:25,362

<i>would be an example </i>

151

00:07:25,554 --> 00:07:28,679

<i>of - intervention effectiveness research.</i>

152

00:07:28,850 --> 00:07:30,625

<i>You see that in this one you take it</i>

153

00:07:30,815 --> 00:07:32,265

<i> from the controlled setting</i>

154

00:07:32,437 --> 00:07:35,250

<i>into a fairly relaxed setting within broader population.</i>

155

00:07:35,450 --> 00:07:38,537

<i>However, you are still controlling some of the parameters</i>

156

00:07:38,737 --> 00:07:40,262

<i>so that you are able to say </i>

157

00:07:40,462 --> 00:07:42,587

<i>that the intervention is effective or not.</i>

158

00:07:42,779 --> 00:07:45,591

<i>Now let's move into implementation effectiveness.</i>

159

00:07:45,791 --> 00:07:48,791

<i>Implementation effectiveness now begins to look at strategies</i>

160

00:07:48,991 --> 00:07:52,279

<i>that you can use to disseminate that efficacious...</i>

161

00:07:52,456 --> 00:07:55,456

<i>and effective intervention within broader population.</i>

162

00:07:55,656 --> 00:07:57,906

<i>For instance, let's assume that</i>

163

00:07:58,106 --> 00:08:00,294

<i>in the intervention effectiveness research</i>

164

00:08:00,500 --> 00:08:03,500

<i>you have used healthcare providers to provide the ivermectin </i>

165

00:08:03,700 --> 00:08:05,337

<i>to the people that need it.</i>

166

00:08:05,530 --> 00:08:08,155

<i>In implementation effectiveness you might begin to look</i>

167

00:08:08,367 --> 00:08:10,255

<i>at other strategies that may be useful</i>

168

00:08:10,443 --> 00:08:12,793

<i>for doing the same thing in a new setting.</i>

169

00:08:12,990 --> 00:08:16,015

<i>For instance, you might be trying to use community health workers</i>

170

00:08:16,215 --> 00:08:18,065

<i>or you might be trying to use policies</i>

171

00:08:18,252 --> 00:08:19,590

<i>to deliver the same drug</i>

172

00:08:19,799 --> 00:08:22,086

<i>and testing to see the impact </i>

173

00:08:22,264 --> 00:08:24,001

<i>of these differences in the strategy</i>

174

00:08:24,236 --> 00:08:26,786

<i>would be a focus of implementation effectiveness.</i>

175

00:08:27,632 --> 00:08:30,632

So with this example I hope you are clear

176

00:08:30,832 --> 00:08:33,345

that intervention efficacy is different

177

00:08:33,545 --> 00:08:35,770

from intervention effectiveness and is different

178

00:08:35,940 --> 00:08:37,802

from implementation effectiveness.

179

00:08:37,997 --> 00:08:40,034

This thinking is actually central

180

00:08:40,240 --> 00:08:42,590

to the conduct of implementation research

181

00:08:42,793 --> 00:08:45,793

and to the whole body of work that is called implementation science.

182

00:08:45,993 --> 00:08:49,330

It's really the deliberate focus on implementation

183

00:08:49,563 --> 00:08:52,788

to take our eyes away momentarily from the intervention

184

00:08:52,988 --> 00:08:55,413

and now only focus on the implementation,

185

00:08:55,618 --> 00:08:57,918

focus on the activities that have been put in place

186

00:08:58,080 --> 00:08:59,868

to implement an intervention.

187

00:09:00,066 --> 00:09:03,066

That is the basis or the focus of the implementation research.

188

00:09:03,991 --> 00:09:07,641

Let's go back again to this example that we presented earlier on,

189

00:09:07,828 --> 00:09:10,578

looking at why efficacious intervention

190

00:09:10,736 --> 00:09:13,736

or effective intervention do not generate the impact

191

00:09:13,936 --> 00:09:16,548

that we hope to see within the population.

192

00:09:16,731 --> 00:09:19,731

So, there are 6 broad categories that we've outlined in this slide.

193

00:09:20,424 --> 00:09:23,424

One of the first examples of implementation failure

194

00:09:23,624 --> 00:09:26,624

or one of the reasons why an efficacious,

195

00:09:26,824 --> 00:09:29,824

an effective, intervention might not yield the results

196

00:09:30,024 --> 00:09:31,961

that we expect within the population

197

00:09:32,148 --> 00:09:35,398

is the failure to roll out the intervention in the first place.

198

00:09:35,598 --> 00:09:38,598

So let's imagine that we have this efficacious ivermectin drug

199

00:09:38,798 --> 00:09:40,998

that is just staying in the lab somewhere

200

00:09:41,179 --> 00:09:43,817

and is really never delivered to the population that needs it

201

00:09:44,022 --> 00:09:46,134

in parts of Africa or Latin America.

202

00:09:46,304 --> 00:09:49,304

We are really never going to find the impact that we hope to see.

203

00:09:50,094 --> 00:09:53,482

The second example is actually the failure to penetrate

204

00:09:53,680 --> 00:09:55,105

the health system.

205

00:09:55,287 --> 00:09:58,874

Imagine that the service for providing ivermectin

206

00:09:59,074 --> 00:10:01,387

is going to be provided through health facilities

207

00:10:01,548 --> 00:10:03,860

and is only restricted to one or two health facilities

208

00:10:04,072 --> 00:10:05,585

within an endemic region.

209

00:10:05,770 --> 00:10:08,770

We’ll see failure in that regard because we have not been able

210

00:10:08,970 --> 00:10:11,970

to reach as many health facilities within the system as possible.

211

00:10:12,170 --> 00:10:14,495

So, failure to penetrate a health system

212

00:10:14,682 --> 00:10:18,282

with an efficacious intervention might also be another reason

213

00:10:18,524 --> 00:10:20,511

for implementation failure.

214

00:10:20,699 --> 00:10:23,486

Closely related to that is the lack of coverage

215

00:10:23,711 --> 00:10:25,911

that often is caused with most efficacious

216

00:10:26,096 --> 00:10:27,846

or effective interventions.

217

00:10:28,064 --> 00:10:30,227

That is to say what proportion of people

218

00:10:30,421 --> 00:10:33,421

that are eligible for the intervention are actually getting it.

219

00:10:33,621 --> 00:10:36,396

If an adequate number of people are not getting the intervention

220

00:10:36,596 --> 00:10:39,821

we would not see a mark or a dent even, in the impact

221

00:10:40,021 --> 00:10:42,183

of the intervention within the population

222

00:10:42,397 --> 00:10:43,884

that we are interested in.

223

00:10:44,079 --> 00:10:47,079

Yet another example is the failure to implement the intervention

224

00:10:47,279 --> 00:10:48,829

as prescribed.

225

00:10:48,996 --> 00:10:51,608

So that is to say that when the intervention was designed

226

00:10:51,788 --> 00:10:53,901

it was designed under a particular protocol.

227

00:10:54,069 --> 00:10:56,519

That's an expectation of the dosage or the frequency with

228

00:10:56,710 --> 00:10:58,522

which the intervention should be delivered.

229

00:10:58,713 --> 00:11:01,250

When you fail to adhere to some of these steps

230

00:11:01,434 --> 00:11:04,434

and to some of these protocols, the intervention would not produce

231

00:11:04,634 --> 00:11:07,634

the results that you hope to see within the population group.

232

00:11:09,072 --> 00:11:12,072

And then the fifth example here is the failure to reach

233

00:11:12,272 --> 00:11:13,521

the at risk population.

234

00:11:13,721 --> 00:11:15,996

So you could as well go to the entire population

235

00:11:16,169 --> 00:11:18,432

but if you fail to reach the target group

236

00:11:18,604 --> 00:11:21,604

you'll find that the niche in which the disease

237

00:11:21,808 --> 00:11:24,833

processes occur within the population will continue to exist

238

00:11:25,033 --> 00:11:27,258

because you have not addressed the population

239

00:11:27,445 --> 00:11:28,858

that was affected.

240

00:11:29,057 --> 00:11:31,657

So, that is another reason why implementation

241

00:11:31,857 --> 00:11:34,857

failure could account for the reason why we don’t have impact

242

00:11:35,057 --> 00:11:38,669

of the efficacious intervention within a broader population.

243

00:11:38,869 --> 00:11:42,219

And then the last example is very common.

244

00:11:42,419 --> 00:11:46,357

It’s this lack or failure to sustain an intervention.

245

00:11:46,557 --> 00:11:48,969

Take for instance an

246

00:11:49,169 --> 00:11:52,169

onchocerca volvulus prevention programme.

247

00:11:52,369 --> 00:11:55,019

I mean, we have control programmes that have been made

248

00:11:55,219 --> 00:11:58,644

to deliver ivermectin to endemic populations

249

00:11:58,819 --> 00:12:00,457

that need the drug.

250

00:12:00,646 --> 00:12:02,596

However, this is only a control.

251

00:12:02,791 --> 00:12:04,516

When we fail to sustain the intervention

252

00:12:04,696 --> 00:12:07,271

over a sufficient period of time what we'll find out is that253

00:12:07,467 --> 00:12:10,254

the disease that we are trying to curtail

254

00:12:10,454 --> 00:12:13,179

would actually re-emerge and would resurge again.

255

00:12:13,342 --> 00:12:15,367

And that would be an implementation failure.

256

00:12:15,549 --> 00:12:18,549

So, lack of sustainability is also another reason why

257

00:12:18,749 --> 00:12:21,749

we don't see impact of efficacious intervention

258

00:12:21,949 --> 00:12:23,661

within the population.

259

00:12:23,840 --> 00:12:27,622

So, I've carefully outlined these six broad categories.

260

00:12:27,822 --> 00:12:31,797

Because often times addressing these challenges or these issues

261

00:12:32,031 --> 00:12:36,018

forms the major body of work in implementation research.

262

00:12:36,215 --> 00:12:39,922

And testing strategies to address these issues or these challenges

263

00:12:40,122 --> 00:12:43,618

forms the focus of implementation effectiveness research.

264

00:12:43,818 --> 00:12:48,040

<i>So, to summarize all that I've been saying:</i>

265

00:12:48,215 --> 00:12:50,352

<i>You cannot have impact</i>

266

00:12:50,557 --> 00:12:53,557

<i>with only an efficacious intervention.</i>

267

00:12:53,757 --> 00:12:56,757

<i>That is to say that having an efficacious</i>

268

00:12:56,957 --> 00:13:00,520

<i>or an effective intervention is not sufficient</i>

269

00:13:00,713 --> 00:13:03,135

<i>to generate impact within the population.</i>

270

00:13:04,170 --> 00:13:05,919

<i>Interventions that are effective</i>

271

00:13:06,119 --> 00:13:09,119

<i>and are efficacious must be backed up</i>

272

00:13:09,319 --> 00:13:12,034

<i> with effective implementation activities.</i>

273

00:13:12,234 --> 00:13:14,959

<i>And it’s only when you have these two together</i>

274

00:13:15,159 --> 00:13:19,239

<i>that you actually have impact at either the individual level</i>

275

00:13:19,464 --> 00:13:22,551

<i>or the population level with regards to health.</i>

276

00:13:22,751 --> 00:13:26,764

<i>Most research in Public Health has focused on generating evidence</i>

277

00:13:26,954 --> 00:13:28,226

<i>for interventions.</i>

278

00:13:28,403 --> 00:13:30,978

<i>And that’s why we have a lot of efficacious interventions</i>

279

00:13:31,164 --> 00:13:32,726

<i>that are sitting on the shelf</i>

280

00:13:32,938 --> 00:13:35,208

<i>and we are not seeing the impact that we hope to see</i>

281

00:13:35,419 --> 00:13:36,776

<i>within the population.</i>

282

00:13:36,976 --> 00:13:39,976

<i>And we've actually neglected focus on implementation.</i>

283

00:13:40,176 --> 00:13:42,659

<i>And the whole essence of this module is to begin</i>

284

00:13:42,834 --> 00:13:46,323

<i>to shift our thinking on how we think about public health problems.</i>

285

00:13:46,523 --> 00:13:49,165

<i>Thinking more in terms of implementation,</i>

286

00:13:49,365 --> 00:13:52,365

<i>and implementation failure, and how to prescribe strategies</i>

287

00:13:52,565 --> 00:13:55,565

<i> to overcome these and how to test these strategies</i>

288

00:13:55,765 --> 00:14:00,693

<i> in a form of research within larger frameworks of public health research.</i>

289

00:14:01,629 --> 00:14:04,554

Here [if] we do have health outcomes

290

00:14:04,754 --> 00:14:08,929

that are commonly used as outcomes of efficacy research

291

00:14:09,129 --> 00:14:11,079

or effectiveness research.

292

00:14:11,290 --> 00:14:14,002

For instance, for most clinical trials we use

293

00:14:14,219 --> 00:14:19,633

an outcome like morbidity, mortality, clinical function

294

00:14:19,833 --> 00:14:23,620

or symptomatology as [an] outcome of the success

295

00:14:23,820 --> 00:14:25,629

of our research.

296

00:14:25,817 --> 00:14:28,003

And the same is true for effectiveness research.

297

00:14:28,203 --> 00:14:31,203

So these are all health outcomes that are commonly used

298

00:14:31,403 --> 00:14:34,850

for testing or generating evidence for the efficacy

299

00:14:35,050 --> 00:14:37,901

or the effectiveness of an intervention.

300

00:14:38,760 --> 00:14:41,406

So if we have distinguished implementation effectiveness

301

00:14:41,606 --> 00:14:44,606

as a separate line of inquiry

302

00:14:44,806 --> 00:14:47,806

from intervention efficacy, intervention effectiveness,

303

00:14:48,006 --> 00:14:51,006

so what kind of outcomes can we use

304

00:14:51,206 --> 00:14:54,206

to test implementation effectiveness

305

00:14:54,406 --> 00:14:57,688

and not confuse it with intervention effectiveness

306

00:14:57,888 --> 00:14:59,523

or intervention efficacy?

307

00:14:59,723 --> 00:15:03,030

So that is to say that we can no longer use

308

00:15:03,230 --> 00:15:05,555

the same set of outcomes

309

00:15:05,755 --> 00:15:08,755

that we call health outcomes, for implementation research.

310

00:15:09,906 --> 00:15:13,069

So, they are [a] special kind of outcome that helps us to see

311

00:15:13,294 --> 00:15:15,569

whether a set of implementation activities

312

00:15:15,756 --> 00:15:17,019

works or not.

313

00:15:17,196 --> 00:15:19,804

And they are distinct from health outcomes

314

00:15:20,004 --> 00:15:22,601

like morbidity and mortality that helpus to see

315

00:15:22,801 --> 00:15:24,869

whether an intervention works or not.

316

00:15:25,069 --> 00:15:28,069

This set of outcomes that looks exclusively

317

00:15:28,269 --> 00:15:31,715

at the success or the failure of implementation activities

318

00:15:31,915 --> 00:15:36,061

are what we call implementation research outcomes.

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00:15:36,261 --> 00:15:38,611

Before we conclude this chapter

320

00:15:38,811 --> 00:15:42,202

I would like to show you a framework on how to think about

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00:15:42,402 --> 00:15:44,221

implementation research.

322

00:15:44,421 --> 00:15:47,921

Implementation research outcomes have been defined

323

00:15:48,121 --> 00:15:50,961

as constructs that describe the effects

324

00:15:51,161 --> 00:15:53,674

of a deliberate or purposive action

325

00:15:53,849 --> 00:15:55,794

to implement an intervention.

326

00:15:55,994 --> 00:16:00,432

That is to say this outcome defines exclusively the effect

327

00:16:00,632 --> 00:16:03,632

of the set of implementation activities or strategy

328

00:16:03,832 --> 00:16:07,731

as distinct from the effect of the intervention itself

329

00:16:07,931 --> 00:16:10,180

within a larger programme setting.

330

00:16:11,090 --> 00:16:14,090

And therefore they are useful for measuring success

331

00:16:14,290 --> 00:16:16,241

or failure of implementation

332

00:16:16,441 --> 00:16:18,685

or of implementation strategy.

333

00:16:18,885 --> 00:16:22,522

Before we go on I'd like to show you an example of how to think about

334

00:16:22,710 --> 00:16:25,764

implementation research in a way that we are able

335

00:16:25,964 --> 00:16:28,764

to distinguish it from effectiveness research

336

00:16:28,939 --> 00:16:31,576

of intervention, efficacy research

337

00:16:31,776 --> 00:16:34,776

of intervention and implementation effectiveness.

338

00:16:34,976 --> 00:16:37,730

<i>So here we see a conceptual diagram</i>

339

00:16:37,930 --> 00:16:41,748

<i>for thinking about implementation research.</i>

340

00:16:41,935 --> 00:16:44,458

<i>On my left side you see</i>

341

00:16:44,658 --> 00:16:46,365

<i>interventions here.</i>

342

00:16:46,565 --> 00:16:48,530

<i>These interventions are often the focus</i>

343

00:16:48,730 --> 00:16:50,288

<i>of most public health research.</i>

344

00:16:50,488 --> 00:16:54,074

<i>And then on my right side you see the outcomes here,</i>

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00:16:54,274 --> 00:16:56,661

<i>which are health outcomes that we observe</i>

346

00:16:56,861 --> 00:16:59,216

<i>at the population level, either at the individual level</i>

347

00:16:59,416 --> 00:17:02,997

<i>or at the more aggregated level for the population.</i>

348

00:17:03,197 --> 00:17:06,363

<i>And usually what research tries to do</i>

349

00:17:06,563 --> 00:17:09,563

<i>is to link the intervention on my left side</i>

350

00:17:09,763 --> 00:17:12,535

<i[] with the outcomes on my right side.</i>

351

00:17:12,735 --> 00:17:15,735

<i>And we often times miss what happens in-between.</i>

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00:17:16,704 --> 00:17:19,704

<i>So that's why even though we find out that the intervention</i>

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00:17:19,904 --> 00:17:23,490

<i>has worked based on changes on outcomes at a population level,</i>

354

00:17:23,690 --> 00:17:26,301

<i>or changes on outcomes at the individual level,</i>

355

00:17:26,501 --> 00:17:28,833

<i>[but] we find it very hard to replicate</i>

356

00:17:29,033 --> 00:17:32,033

<i>those evidence-based interventions in other settings.</i>

357

00:17:32,233 --> 00:17:35,233

<i>And this is where implementation research comes in.</i>

358

00:17:35,433 --> 00:17:38,968

<i>So, this whole idea that you need some set of strategies</i>

359

00:17:39,168 --> 00:17:42,523

<i>in trying to carry out or to deliver</i>

360

00:17:42,723 --> 00:17:45,348

<i>an intervention within the population;</i>

361

00:17:45,548 --> 00:17:48,610

<i>and that these strategies will interact with the intervention</i>

362

00:17:48,810 --> 00:17:51,810

<i>to produce outcomes, implementation research outcomes</i>

363

00:17:52,010 --> 00:17:55,622

<i>which will tell you whether the implementation activities</i>

364

00:17:55,835 --> 00:17:57,435

<i>have been successful or not.</i>

365

00:17:57,635 --> 00:18:01,272

<i>And is only when you have success in this set of activities</i>

366

00:18:01,472 --> 00:18:03,519

<i>or you have success with the strategies</i>

367

00:18:03,719 --> 00:18:06,827

<i>that you have improvement in service outcome</i>

368

00:18:07,027 --> 00:18:09,827

<i>at an aggregate level, if it's applicable,</i>

369

00:18:10,027 --> 00:18:13,027

<i>which oftentimes then leads on to the health outcomes</i>

370

00:18:13,227 --> 00:18:15,110

<i>that we commonly see.</i>

371

00:18:15,310 --> 00:18:18,310

<i>So here we are saying that the core of implementation science</i>

372

00:18:18,510 --> 00:18:21,510

<i>is the description about implementation strategies</i>

373

00:18:21,710 --> 00:18:24,460

<i>or thinking about how implementation strategies work</i>

374

00:18:24,647 --> 00:18:26,599

<i>within a particular setting.</i>

375

00:18:26,799 --> 00:18:28,711

<i>And being able to articulate this effect</i>

376

00:18:28,913 --> 00:18:31,512

<i>using measures of implementation research outcomes</i>

377

00:18:31,712 --> 00:18:34,212

<i>and linking these Implementation Research Outcomes</i>

378

00:18:34,412 --> 00:18:36,569

<i>to the health outcome that we hope to see</i>

379

00:18:36,769 --> 00:18:39,297

<i>at the individual level or the population level.</i>

380

00:18:39,497 --> 00:18:42,603

<i>This forms the core of implementation science</i>

381

00:18:42,803 --> 00:18:45,803

<i>and forms most of the work or the body of work</i>

382

00:18:46,003 --> 00:18:48,001

<i>that implementation research covers.</i>

383

00:18:48,201 --> 00:18:51,362

<i>And indeed, implementation research outcome</i>

384

00:18:51,562 --> 00:18:53,621

<i>is central to this knowledge.</i>

385

00:18:53,821 --> 00:18:56,821

<i>because without the outcomes we are not able to distinguish</i>

386

00:18:57,021 --> 00:18:59,494

<i>the effect of the implementation activities</i>

387

00:18:59,694 --> 00:19:04,199

<i>from the intervention effectiveness or from the intervention efficacy.</i>

388

00:19:04,399 --> 00:19:07,399

So I hope this helps you to think about

389

00:19:07,599 --> 00:19:10,599

implementation research, and also I hope it helps you

390

00:19:10,799 --> 00:19:13,549

to think about implementation research outcomes

391

00:19:13,749 --> 00:19:16,664

and how central it is to the conduct

392

00:19:16,864 --> 00:19:18,498

of implementation research.

393

00:19:18,698 --> 00:19:21,698

To kind of recap all that we have been saying so far

394

00:19:21,898 --> 00:19:24,439

let's go back to the quiz that you took at the beginning

395

00:19:24,627 --> 00:19:25,644

of this chapter.

396

00:19:25,844 --> 00:19:30,010

Remember, at the beginning of chapter 1 of this module

397

00:19:30,210 --> 00:19:32,790

we asked you if implementation effectiveness

398

00:19:32,990 --> 00:19:35,648

could be defined as the impact of an intervention

399

00:19:35,848 --> 00:19:37,749

under a controlled setting.

400

00:19:37,949 --> 00:19:40,617

By now I'm sure you will agree with me that that would be false.

401

00:19:40,817 --> 00:19:43,817

Because looking at effect or generated evidence

402

00:19:44,017 --> 00:19:46,336

for an intervention under a controlled setting

403

00:19:46,516 --> 00:19:48,941

is actually intervention efficacy.

404

00:19:49,141 --> 00:19:51,604

And when you do that within a larger population group

405

00:19:51,804 --> 00:19:54,299

that's intervention effectiveness.

406

00:19:54,499 --> 00:19:56,428

But when you are trying to generate evidence

407

00:19:56,628 --> 00:19:59,628

for the implementation activities as opposed to the intervention

408

00:19:59,828 --> 00:20:03,428

then you are really in the domain of implementation effectiveness.

409

00:20:04,105 --> 00:20:07,330

The second question had asked you if implementation research outcomes

410

00:20:07,530 --> 00:20:12,043

are useful for assessing the impact of an intervention on individual

411

00:20:12,243 --> 00:20:14,132

or population health.

412

00:20:14,332 --> 00:20:16,075

Again, this would be false.

413

00:20:16,275 --> 00:20:20,309

We know that health outcomes have been specifically described as useful

414

00:20:20,509 --> 00:20:23,528

for measuring impact at individual health levels

415

00:20:23,728 --> 00:20:24,957

or population health levels.

416

00:20:25,157 --> 00:20:27,051

And we have said that these health outcomes

417

00:20:27,263 --> 00:20:30,188

are used for measures of intervention efficacy

418

00:20:30,388 --> 00:20:32,426

or intervention effectiveness.

419

00:20:32,626 --> 00:20:35,233

Implementation research outcomes on the other hand

420

00:20:35,421 --> 00:20:39,310

look at success or failure of a set of implementation activities.

421

00:20:40,193 --> 00:20:45,061

And these are actually more proximal to the implementation activities

422

00:20:45,293 --> 00:20:47,695

as we saw from the diagram that was presented

423

00:20:47,895 --> 00:20:50,077

on implementation research.

424

00:20:50,277 --> 00:20:53,277

So, the third question was asking you exactly that:

425

00:20:53,477 --> 00:20:56,477

if implementation research outcomes could be conceptualized

426

00:20:56,677 --> 00:20:59,677

as the most proximal outcome of an implementation process.

427

00:20:59,877 --> 00:21:01,501

And that is true.

428

00:21:01,701 --> 00:21:03,170

Remember the diagram:

429

00:21:03,370 --> 00:21:05,511

we have the evidence-based intervention,

430

00:21:05,711 --> 00:21:08,711

we have the implementation strategy

431

00:21:08,911 --> 00:21:11,911

and then the first set of outcomes that we see that tells us

432

00:21:12,111 --> 00:21:14,886

how successful has the strategy worked

433

00:21:15,086 --> 00:21:17,039

in a particular context with the list

434

00:21:17,214 --> 00:21:19,090

of implementation research outcomes,

435

00:21:19,290 --> 00:21:21,532

which may in turn mediate the service outcomes

436

00:21:21,732 --> 00:21:23,320

and the population end outcomes

437

00:21:23,518 --> 00:21:26,608

that we see at the end of the diagram.

438

00:21:26,808 --> 00:21:29,808

And then the last question was asking yourself

439

00:21:30,008 --> 00:21:32,187

if an effective intervention may not lead

440

00:21:32,387 --> 00:21:35,112

to a desired health outcome because of implementation failure.

441

00:21:35,325 --> 00:21:37,173

And the right response again would be true.

442

00:21:37,373 --> 00:21:40,185

We listed at least six broad categories

443

00:21:40,385 --> 00:21:42,494

or reasons why implementation failure

444

00:21:42,694 --> 00:21:46,044

might cause a lack of population health impact

445

00:21:46,244 --> 00:21:48,286

for an efficacious intervention.

446

00:21:48,506 --> 00:21:52,185

All of these are different reasons why interventions might fail

447

00:21:52,385 --> 00:21:54,929

to produce the impact that we hope to see.

448

00:21:55,129 --> 00:21:57,468

I would say that this implementation failure

449

00:21:57,668 --> 00:22:00,668

or prescribing strategies [to address] this implementation failure

450

00:22:00,868 --> 00:22:03,868

forms the focus of implementation research.

451

00:22:04,068 --> 00:22:07,318

And testing these strategies actually forms what you are trying

452

00:22:07,518 --> 00:22:11,403

to accomplish by doing studies on implementation effectiveness.

[**https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/5c72bfffd2b8428cbcba76e1cf04ec91/?child=first**](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/5c72bfffd2b8428cbcba76e1cf04ec91/?child=first)

[Course](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/)  [Module 4: Implementation Research Outcomes](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@chapter+block@ddde7302c3d443559d695bb1122135e5)  [Distinguish between efficacy of an intervention and implementation effectiveness](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@sequential+block@5c72bfffd2b8428cbcba76e1cf04ec91)  Discussion

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## Discussion

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### ****Discussion****

* 1. Why evidence-informed interventions do not always translate into impact at the population-level
* 2. How to make a distinction between intervention efficacy, intervention effectiveness and implementation effectiveness

### Discussion

[**https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/5c72bfffd2b8428cbcba76e1cf04ec91/?child=first**](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/5c72bfffd2b8428cbcba76e1cf04ec91/?child=first)

C[ourse](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/)  [Module 4: Implementation Research Outcomes](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@chapter+block@ddde7302c3d443559d695bb1122135e5)  [Distinguish between efficacy of an intervention and implementation effectiveness](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@sequential+block@5c72bfffd2b8428cbcba76e1cf04ec91)  Resources and References

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## Resources and References

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### ****Resources****

Presentation available for download [**here**](https://www.tdrmooc.org/assets/courseware/v1/a1f852aaac7dc5853f87a254d9eeb305/asset-v1:TDR+IR+2016+type@asset+block/Module4_intro_Chapter_1.pdf).

### ****References****

* 1. Proctor EK, et al. Implementation research in mental health services: an emerging science with conceptual, methodological, and training challenges. *Administration and policy in mental health*, 2009, 36(1):24-34. **[Document here](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808121/pdf/nihms519797.pdf" \t "[object Object])**.

**<https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/a1146fc7e45c4f689abef12691731330/?child=first>**

[Course](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/)  [Module 4: Implementation Research Outcomes](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/" \l "block-v1:TDR+IR+2016+type@chapter+block@ddde7302c3d443559d695bb1122135e5)  [Examples of Implementation Research Outcomes](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/" \l "block-v1:TDR+IR+2016+type@sequential+block@a1146fc7e45c4f689abef12691731330)  Examples of Implementation Research Outcomes 1

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## Examples of Implementation Research Outcomes 1

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### Objectives

At the end of this section you will be able to:

* Describe common constructs used as IROs and examples of IROs used in TDR IR
* Describe the relevance of different IROs for different temporal stages of implementation
* Describe examples of IROs that are relevant for assessing health system readiness

### Examples of Implementation Research Outcomes 1

0

00:00:04,159 --> 00:00:05,509

So, good morning.

1

00:00:05,925 --> 00:00:07,924

We are here again to continue

2

00:00:08,099 --> 00:00:11,225

in the Module 4 of the course

3

00:00:11,417 --> 00:00:12,892

on implementation research.

4

00:00:13,082 --> 00:00:13,944

So, today we will be

5

00:00:14,128 --> 00:00:15,453

continuing in this same vein

6

00:00:15,646 --> 00:00:17,882

and we will be looking at examples

7

00:00:18,092 --> 00:00:20,705

of implementation research outcomes.

8

00:00:20,905 --> 00:00:22,404

This chapter has been divided

9

00:00:22,591 --> 00:00:24,129

into 3 sections.

10

00:00:24,436 --> 00:00:26,047

The first section will describe

11

00:00:26,239 --> 00:00:28,188

common constructs that have been used

12

00:00:28,371 --> 00:00:30,110

as implementation research outcomes.

13

00:00:30,298 --> 00:00:31,811

Then, in the second chapter,

14

00:00:31,989 --> 00:00:33,164

we will describe the relevance

15

00:00:33,365 --> 00:00:34,091

of different

16

00:00:34,276 --> 00:00:35,775

implementation research outcomes

17

00:00:35,967 --> 00:00:37,367

for different stages

18

00:00:37,543 --> 00:00:39,031

of implementation research.

19

00:00:39,377 --> 00:00:40,827

Before we proceed,

20

00:00:41,081 --> 00:00:42,831

it's now a practice,

21

00:00:43,003 --> 00:00:44,590

we're going to do some quizzes

22

00:00:45,316 --> 00:00:47,441

to kind of help us to gauge

23

00:00:47,858 --> 00:00:50,433

our knowledge and to also present

24

00:00:50,627 --> 00:00:52,265

some of the key messages

25

00:00:52,449 --> 00:00:53,573

that we will be presenting

26

00:00:53,752 --> 00:00:54,989

in this chapter.

27

00:00:55,199 --> 00:00:56,599

So, I would like you to take your pen

28

00:00:56,810 --> 00:00:58,022

and your paper

29

00:00:58,298 --> 00:00:59,473

and to answer true or false

30

00:00:59,654 --> 00:01:00,867

to the following questions.

31

00:01:01,060 --> 00:01:02,472

The first question:

32

00:01:02,652 --> 00:01:04,827

The following are examples of

33

00:01:05,023 --> 00:01:06,773

implementation research outcomes:

34

00:01:07,526 --> 00:01:11,551

mortality, morbidity, and disease incidence.

35

00:01:12,960 --> 00:01:14,285

Question 2:

36

00:01:14,465 --> 00:01:16,427

Implementation research outcomes

37

00:01:16,620 --> 00:01:18,845

are only single-domain constructs

38

00:01:19,082 --> 00:01:21,619

and are heuristically defined.

39

00:01:23,538 --> 00:01:24,713

Question 3:

40

00:01:24,928 --> 00:01:27,327

Implementation fidelity could be assessed

41

00:01:27,515 --> 00:01:30,615

by examining adherence to intervention protocol

42

00:01:30,821 --> 00:01:32,821

and quality of delivery.

43

00:01:33,958 --> 00:01:35,196

Question 4:

44

00:01:35,372 --> 00:01:37,508

Various implementation research outcomes

45

00:01:37,709 --> 00:01:39,558

are relevant for research focused

46

00:01:39,747 --> 00:01:40,747

on different temporal

47

00:01:40,947 --> 00:01:42,629

stages of implementation.

48

00:01:43,174 --> 00:01:44,424

And the last question:

49

00:01:45,259 --> 00:01:47,221

Fidelity measures are some of

50

00:01:47,409 --> 00:01:49,871

the most common implementation research outcomes

51

00:01:50,072 --> 00:01:53,071

used in assessing health system readiness.

52

00:01:53,259 --> 00:01:54,684

We'll begin Section 1 by looking

53

00:01:54,872 --> 00:01:56,259

at common constructs that

54

00:01:56,471 --> 00:01:57,259

are being used

55

00:01:57,572 --> 00:01:58,872

in public health studies

56

00:01:59,047 --> 00:02:00,997

as implementation research outcomes.

57

00:02:01,497 --> 00:02:02,721

I would like to clarify that these

58

00:02:02,897 --> 00:02:04,246

are not the only constructs that

59

00:02:04,434 --> 00:02:05,908

could be used or that are examples

60

00:02:06,109 --> 00:02:07,472

of implementation research

61

00:02:08,014 --> 00:02:08,652

outcomes.

62

00:02:08,839 --> 00:02:10,063

But these are the common ones

63

00:02:10,251 --> 00:02:12,064

that you'll find across the literature

64

00:02:12,267 --> 00:02:14,380

not only for infectious diseases

65

00:02:14,584 --> 00:02:16,409

of poverty, but also across

66

00:02:16,591 --> 00:02:18,817

different areas of public health.

67

00:02:19,169 --> 00:02:20,369

So, to the first construct,

68

00:02:20,552 --> 00:02:22,077

which is acceptability.

69

00:02:22,255 --> 00:02:23,555

That we defined as

70

00:02:23,736 --> 00:02:25,636

the perception among stakeholders

71

00:02:25,897 --> 00:02:28,296

that an intervention is agreeable.

72

00:02:28,659 --> 00:02:29,683

So it's this whole idea

73

00:02:29,871 --> 00:02:31,283

that people find

74

00:02:31,488 --> 00:02:33,138

the way in which an intervention

75

00:02:33,340 --> 00:02:35,014

is delivered to be agreeable.

76

00:02:35,198 --> 00:02:36,747

They have some level of comfort

77

00:02:36,933 --> 00:02:38,422

or some satisfaction

78

00:02:38,621 --> 00:02:39,733

with different aspects

79

00:02:39,909 --> 00:02:41,283

of implementation activities

80

00:02:41,471 --> 00:02:42,871

around the delivery

81

00:02:43,059 --> 00:02:44,346

of an intervention.

82

00:02:44,538 --> 00:02:47,525

That has been called by other terms

83

00:02:47,727 --> 00:02:48,888

including comfort,

84

00:02:49,134 --> 00:02:51,484

relative advantage and credibility.

85

00:02:51,796 --> 00:02:53,445

So, again to the example that

86

00:02:53,633 --> 00:02:55,571

we used earlier on in Chapter 1

87

00:02:55,766 --> 00:02:57,415

we had said that in testing

88

00:02:57,609 --> 00:02:58,446

the impact

89

00:02:58,634 --> 00:02:59,696

of different strategies

90

00:02:59,891 --> 00:03:02,040

on the delivery of

91

00:03:02,234 --> 00:03:04,172

an evidence based intervention

92

00:03:04,359 --> 00:03:06,284

that we could use acceptability

93

00:03:06,484 --> 00:03:09,558

to compare one strategy to another.

94

00:03:09,744 --> 00:03:11,582

We could say to some extent

95

00:03:11,771 --> 00:03:13,183

that implementation activities

96

00:03:13,372 --> 00:03:15,721

are successful when we have

97

00:03:15,909 --> 00:03:18,549

better acceptability of a strategy

98

00:03:18,747 --> 00:03:19,734

compared to another.

99

00:03:19,988 --> 00:03:21,375

Adoption has been defined here

100

00:03:21,571 --> 00:03:22,796

as the intention or

101

00:03:22,978 --> 00:03:24,078

the initial decision

102

00:03:24,271 --> 00:03:25,970

to try out an intervention.

103

00:03:26,159 --> 00:03:27,946

So it's this whole idea that

104

00:03:28,123 --> 00:03:29,373

you contemplate to try out

105

00:03:29,560 --> 00:03:30,535

an intervention

106

00:03:30,704 --> 00:03:32,953

and you eventually make the decision

107

00:03:33,134 --> 00:03:34,509

to do the intervention

108

00:03:34,697 --> 00:03:37,259

and then in the phases

109

00:03:37,446 --> 00:03:38,959

where you are beginning to test out

110

00:03:39,146 --> 00:03:39,920

the intervention.

111

00:03:40,108 --> 00:03:41,846

So all that is the measure of adoption.

112

00:03:42,052 --> 00:03:43,176

For instance even

113

00:03:43,372 --> 00:03:45,346

by virtue of a new strategy

114

00:03:45,916 --> 00:03:47,891

people in a particular community

115

00:03:48,296 --> 00:03:50,459

are able to adopt some intervention

116

00:03:50,647 --> 00:03:52,696

compared to some other community.

117

00:03:52,896 --> 00:03:54,808

That, in a way, is useful

118

00:03:54,997 --> 00:03:56,559

for testing whether these sorts of

119

00:03:56,746 --> 00:03:57,959

implementation activities

120

00:03:58,144 --> 00:03:59,882

have worked or not.

121

00:04:00,182 --> 00:04:01,945

Appropriateness is the perceived fit

122

00:04:02,137 --> 00:04:04,511

or the relevance of an intervention

123

00:04:04,689 --> 00:04:06,514

even in a particular setting.

124

00:04:07,454 --> 00:04:09,504

So this whole idea that because of

125

00:04:09,708 --> 00:04:11,796

the way an intervention is designed,

126

00:04:12,138 --> 00:04:13,299

because of the make-up

127

00:04:13,479 --> 00:04:14,841

of a particular context in which

128

00:04:15,031 --> 00:04:16,167

the intervention is going to

129

00:04:16,353 --> 00:04:17,316

be delivered,

130

00:04:17,506 --> 00:04:19,631

that you could begin to imagine

131

00:04:19,825 --> 00:04:21,188

that that would be a good fit

132

00:04:21,375 --> 00:04:23,013

of an intervention

133

00:04:23,182 --> 00:04:24,414

into the new setting

134

00:04:24,593 --> 00:04:25,656

that you are intending to

135

00:04:25,837 --> 00:04:27,062

implement the intervention.

136

00:04:27,250 --> 00:04:28,362

And that, in a way,

137

00:04:28,543 --> 00:04:29,630

is also a measure

138

00:04:29,830 --> 00:04:31,380

of your implementation activities

139

00:04:31,589 --> 00:04:32,702

because you could say that

140

00:04:32,875 --> 00:04:33,287

in places

141

00:04:33,470 --> 00:04:33,876

where you

142

00:04:34,063 --> 00:04:35,226

have high appropriateness

143

00:04:35,406 --> 00:04:36,368

you're going to achieve

144

00:04:36,561 --> 00:04:37,924

effective implementation and

145

00:04:38,121 --> 00:04:40,147

therefore achieve effective results.

146

00:04:40,334 --> 00:04:41,084

Feasibility.

147

00:04:41,263 --> 00:04:42,675

It's perhaps a very common construct

148

00:04:42,871 --> 00:04:43,683

that has been used

149

00:04:43,871 --> 00:04:45,096

in study

150

00:04:45,284 --> 00:04:46,746

of implementation research.

151

00:04:46,933 --> 00:04:47,958

Here it is defined

152

00:04:48,141 --> 00:04:49,541

as the extent to which

153

00:04:49,734 --> 00:04:51,258

an intervention can be carried out

154

00:04:51,459 --> 00:04:52,684

in a particular setting

155

00:04:52,883 --> 00:04:54,258

or organization.

156

00:04:54,500 --> 00:04:56,150

So you see here it's different

157

00:04:56,326 --> 00:04:57,638

from appropriateness in that

158

00:04:57,828 --> 00:04:58,941

appropriateness looks at

159

00:04:59,131 --> 00:05:00,057

the perceived fit

160

00:05:00,246 --> 00:05:01,834

while here in feasibility we're

161

00:05:02,034 --> 00:05:03,284

actually measuring

162

00:05:03,482 --> 00:05:06,356

the actual fit of the intervention

163

00:05:06,538 --> 00:05:08,338

into the new setting.

164

00:05:08,531 --> 00:05:09,705

That is to say that we can not

165

00:05:09,889 --> 00:05:11,989

measure feasibility without actually

166

00:05:12,177 --> 00:05:13,765

delivering the intervention and

167

00:05:13,947 --> 00:05:15,559

usually this measure is taken

168

00:05:15,747 --> 00:05:17,071

at the very early phases

169

00:05:17,272 --> 00:05:18,721

of an implementation activity.

170

00:05:18,901 --> 00:05:21,725

So we think about our pilot studies

171

00:05:21,913 --> 00:05:23,188

that look about what is

172

00:05:23,401 --> 00:05:25,488

the likelihood of success if we do

173

00:05:25,721 --> 00:05:27,684

this intervention in a new setting.

174

00:05:27,875 --> 00:05:29,800

The likelihood of success might be

175

00:05:29,985 --> 00:05:31,635

determined by looking at the cost

176

00:05:31,824 --> 00:05:33,508

or might be determined by looking

177

00:05:33,699 --> 00:05:34,624

at the acceptability

178

00:05:34,807 --> 00:05:36,432

of the intervention or may

179

00:05:36,602 --> 00:05:37,739

be determined by looking

180

00:05:37,925 --> 00:05:39,925

at how effective it was

181

00:05:40,115 --> 00:05:41,965

for the stakeholders and

182

00:05:42,153 --> 00:05:44,265

the main actors in being able

183

00:05:44,465 --> 00:05:45,927

to deliver the actual intervention

184

00:05:46,117 --> 00:05:47,417

to the population that needs it.

185

00:05:47,601 --> 00:05:49,364

So all of these together

186

00:05:49,552 --> 00:05:51,115

are measures of feasibility.

187

00:05:51,322 --> 00:05:52,571

And you would see from

188

00:05:52,759 --> 00:05:54,434

the elaborations that are provided

189

00:05:54,622 --> 00:05:56,159

that there are different domains

190

00:05:56,344 --> 00:05:57,294

that can be used

191

00:05:57,475 --> 00:05:58,750

to measure feasibility.

192

00:05:58,936 --> 00:06:00,261

For instance I mentioned cost,

193

00:06:00,449 --> 00:06:02,361

I mentioned acceptability,

194

00:06:02,536 --> 00:06:06,573

I mentioned the degree of execution

195

00:06:06,759 --> 00:06:07,809

of the intervention.

196

00:06:07,994 --> 00:06:09,332

So all of these domains could be

197

00:06:09,520 --> 00:06:11,707

together used to measure feasibility.

198

00:06:11,891 --> 00:06:13,715

That is to say that the definition

199

00:06:13,903 --> 00:06:15,378

comes by experience.

200

00:06:16,264 --> 00:06:18,639

It really comes by the reason of

201

00:06:18,966 --> 00:06:20,428

doing of the intervention or

202

00:06:20,616 --> 00:06:22,328

doing of the activity and therefore

203

00:06:22,518 --> 00:06:24,106

you're able to define this construct

204

00:06:24,294 --> 00:06:26,556

based on the actual experience

205

00:06:26,742 --> 00:06:28,118

of implementation.

206

00:06:28,314 --> 00:06:29,413

Put in another way,

207

00:06:29,601 --> 00:06:30,689

these outcomes

208

00:06:30,873 --> 00:06:32,198

are heuristically defined.

209

00:06:32,376 --> 00:06:33,314

Let's move on.

210

00:06:33,501 --> 00:06:34,426

Still talking about

211

00:06:34,614 --> 00:06:36,576

the common examples of constructs

212

00:06:36,772 --> 00:06:37,710

that are being used

213

00:06:37,897 --> 00:06:39,823

as implementation research outcomes.

214

00:06:40,173 --> 00:06:41,885

The next common construct that we

215

00:06:42,082 --> 00:06:44,345

are going to talk about is fidelity.

216

00:06:44,541 --> 00:06:46,528

So, fidelity is the degree to which

217

00:06:46,716 --> 00:06:48,566

an intervention was implemented

218

00:06:48,753 --> 00:06:49,540

as it was designed,

219

00:06:49,726 --> 00:06:51,151

in an original protocol,

220

00:06:51,346 --> 00:06:53,108

plan or policy.

221

00:06:53,360 --> 00:06:54,660

That is to say that for every

222

00:06:54,846 --> 00:06:56,859

evidence based intervention there is

223

00:06:57,067 --> 00:06:58,554

a way in which the intervention

224

00:06:58,742 --> 00:07:00,492

was designed or there is a way

225

00:07:00,682 --> 00:07:01,881

in which the intervention was

226

00:07:02,082 --> 00:07:03,444

originally delivered when it

227

00:07:03,632 --> 00:07:05,306

was being tested for effectiveness.

228

00:07:05,507 --> 00:07:07,582

So fidelity is being able

229

00:07:07,769 --> 00:07:10,069

to carry out that intervention

230

00:07:10,268 --> 00:07:10,942

in the way

231

00:07:11,133 --> 00:07:12,496

that it was originally designed

232

00:07:12,717 --> 00:07:13,791

in the original protocol

233

00:07:13,963 --> 00:07:15,163

by the designer.

234

00:07:15,349 --> 00:07:16,936

So anything that deviates

235

00:07:17,132 --> 00:07:19,282

from the main protocol or

236

00:07:19,482 --> 00:07:21,082

that deviates from the way

237

00:07:21,278 --> 00:07:22,516

in which the intervention

238

00:07:22,698 --> 00:07:24,660

was originally designed would be

239

00:07:24,856 --> 00:07:26,618

a deviation in fidelity.

240

00:07:26,817 --> 00:07:28,279

So there are several other names

241

00:07:28,467 --> 00:07:30,579

by which fidelity has been described

242

00:07:30,767 --> 00:07:31,529

in the literature

243

00:07:31,714 --> 00:07:32,952

including adherence,

244

00:07:33,141 --> 00:07:34,354

delivery as intended,

245

00:07:34,540 --> 00:07:37,377

integrity, quality of delivery,

246

00:07:37,569 --> 00:07:39,269

intensity, dosage,

247

00:07:39,467 --> 00:07:40,492

and so on and so forth.

248

00:07:40,683 --> 00:07:42,820

But it's important to also highlight

249

00:07:43,020 --> 00:07:44,020

that for fidelity

250

00:07:44,220 --> 00:07:46,545

just like feasibility it is

251

00:07:46,745 --> 00:07:48,095

a multi-domain construct

252

00:07:48,278 --> 00:07:49,840

because you have different domains

253

00:07:50,024 --> 00:07:51,711

that contribute to

254

00:07:51,899 --> 00:07:55,587

the measure that we call fidelity.

255

00:07:55,799 --> 00:07:57,198

Implementation cost is

256

00:07:57,378 --> 00:07:58,977

the incremental cost

257

00:07:59,153 --> 00:08:00,990

to deliver an intervention

258

00:08:01,167 --> 00:08:02,430

in a new setting.

259

00:08:02,608 --> 00:08:04,333

All the cost that is associated

260

00:08:04,520 --> 00:08:06,770

with the implementation activities

261

00:08:06,968 --> 00:08:09,018

to carry out an intervention

262

00:08:09,205 --> 00:08:09,905

in a new setting

263

00:08:10,092 --> 00:08:12,067

will be implementation cost.

264

00:08:12,264 --> 00:08:14,214

This is a single domain or construct

265

00:08:14,402 --> 00:08:15,414

because it looks simply

266

00:08:15,589 --> 00:08:16,876

at monetary value

267

00:08:17,074 --> 00:08:18,549

of a set of activities

268

00:08:18,728 --> 00:08:20,515

to do

269

00:08:20,703 --> 00:08:22,190

an intervention in a new setting.

270

00:08:22,380 --> 00:08:23,567

Penetration talks about

271

00:08:23,759 --> 00:08:26,446

this whole idea of the vertical scale-up

272

00:08:26,644 --> 00:08:27,681

of an intervention

273

00:08:27,871 --> 00:08:29,395

within a particular system.

274

00:08:29,593 --> 00:08:30,893

For example, let's imagine

275

00:08:31,087 --> 00:08:32,374

that an intervention can only

276

00:08:32,560 --> 00:08:33,122

be delivered

277

00:08:33,320 --> 00:08:34,958

at the health facility level.

278

00:08:35,203 --> 00:08:36,840

Penetration will look at how many

279

00:08:37,043 --> 00:08:38,830

of the different health

facilities

280

00:08:39,052 --> 00:08:41,114

in a new setting have actually

281

00:08:41,304 --> 00:08:42,792

carried out the evidence

282

00:08:42,992 --> 00:08:44,479

with practice.

283

00:08:44,795 --> 00:08:46,469

It's going to be a measure or

284

00:08:46,660 --> 00:08:48,498

penetration of this vertical

285

00:08:48,688 --> 00:08:50,100

scale up of an intervention.

286

00:08:50,289 --> 00:08:51,464

And it's slightly different

287

00:08:51,652 --> 00:08:52,915

from coverage which is really

288

00:08:53,113 --> 00:08:54,075

looking at the spread

289

00:08:54,254 --> 00:08:55,754

of the intervention

290

00:08:55,946 --> 00:08:56,946

within the community

291

00:08:57,140 --> 00:08:59,339

or within the eligible population

292

00:08:59,529 --> 00:09:00,878

that needs the intervention.

293

00:09:01,067 --> 00:09:02,542

That is to say that what proportion

294

00:09:02,730 --> 00:09:04,217

of an eligible population

295

00:09:04,416 --> 00:09:05,341

that should receive

296

00:09:05,522 --> 00:09:06,447

an intervention

297

00:09:06,630 --> 00:09:08,230

actually receives it.

298

00:09:08,420 --> 00:09:10,620

Next and last, but not the least

299

00:09:10,801 --> 00:09:12,025

is sustainability.

300

00:09:12,228 --> 00:09:13,615

Here we define sustainability

301

00:09:13,803 --> 00:09:14,790

as the extent to which

302

00:09:14,981 --> 00:09:16,442

an intervention is maintained

303

00:09:16,631 --> 00:09:17,867

or institutionalized

304

00:09:18,058 --> 00:09:19,258

in a given setting.

305

00:09:19,468 --> 00:09:21,117

That is to say that this whole idea

306

00:09:21,303 --> 00:09:22,515

of being able to integrate

307

00:09:22,703 --> 00:09:24,577

an evidence based intervention

308

00:09:24,771 --> 00:09:27,258

along with these implementation activities

309

00:09:27,440 --> 00:09:29,514

within the larger framework or

310

00:09:29,714 --> 00:09:30,926

the larger health system

311

00:09:31,128 --> 00:09:33,279

or the larger organization setting

312

00:09:33,465 --> 00:09:34,589

in which the intervention

313

00:09:34,793 --> 00:09:36,194

was originally delivered.

314

00:09:36,393 --> 00:09:37,705

This has been called by

315

00:09:37,891 --> 00:09:38,765

several other names

316

00:09:38,964 --> 00:09:41,052

including maintenance, continuation,

317

00:09:41,238 --> 00:09:43,937

routinization and institutionalization.

318

00:09:44,125 --> 00:09:47,312

Obviously there is no particular way

319

00:09:47,500 --> 00:09:48,850

of taking this measure.

320

00:09:49,037 --> 00:09:50,462

What is important is to be true

321

00:09:50,650 --> 00:09:52,450

to the paradigm and to be true to

322

00:09:52,639 --> 00:09:54,189

the thinking and to be able to show

323

00:09:54,377 --> 00:09:56,102

the linkages between how these

324

00:09:56,290 --> 00:09:57,939

implementation research outcomes

325

00:09:58,138 --> 00:09:59,700

link your intervention and

326

00:09:59,901 --> 00:10:01,163

your evidence based strategy

327

00:10:01,351 --> 00:10:03,464

on one hand to the impact that

328

00:10:03,651 --> 00:10:05,713

you hope to see at the population level

329

00:10:05,900 --> 00:10:07,425

or in the individual health level on

330

00:10:07,600 --> 00:10:08,625

the other hand.

331

00:10:08,829 --> 00:10:10,778

So before we conclude Section 1

332

00:10:10,966 --> 00:10:12,265

we are going to look at some

333

00:10:12,466 --> 00:10:13,478

specific examples

334

00:10:13,666 --> 00:10:15,291

of implementation research outcomes

335

00:10:15,486 --> 00:10:16,936

that have been used in TDR

336

00:10:17,129 --> 00:10:18,428

supported grants.

337

00:10:19,187 --> 00:10:21,111

It's important for you to have done

338

00:10:21,312 --> 00:10:22,874

the required reading at this time

339

00:10:23,062 --> 00:10:24,749

because the examples that we're

340

00:10:24,949 --> 00:10:26,437

going to be looking at in the rest

341

00:10:26,625 --> 00:10:28,212

of this chapter or Chapter 2

342

00:10:28,399 --> 00:10:30,012

and also in Chapter 3 are going to

343

00:10:30,199 --> 00:10:31,136

be heavily based

344

00:10:31,329 --> 00:10:32,554

on the required readings.

345

00:10:32,755 --> 00:10:34,131

So if you have not done so already

346

00:10:34,319 --> 00:10:35,755

I would like you to take a pause now

347

00:10:35,943 --> 00:10:37,956

and go to the required reading and

348

00:10:38,149 --> 00:10:40,061

complete the 6 readings before

349

00:10:40,256 --> 00:10:41,319

you move on.

350

00:10:41,506 --> 00:10:43,093

If you have done the readings already

351

00:10:43,283 --> 00:10:44,359

I would like to invite you

352

00:10:44,559 --> 00:10:45,646

to come along with me

353

00:10:45,833 --> 00:10:47,770

as we look at these examples.

354

00:10:47,967 --> 00:10:49,328

So the first example that we're

355

00:10:49,516 --> 00:10:51,591

going to look at today is really

356

00:10:51,792 --> 00:10:54,215

the example by Katabarwa et al

357

00:10:54,403 --> 00:10:56,340

and we are looking at community

358

00:10:56,541 --> 00:10:58,365

directed interventions in

359

00:10:58,558 --> 00:11:00,608

an ivermectin maintained control programme.

360

00:11:00,808 --> 00:11:03,332

They looked at this study in Uganda

361

00:11:03,520 --> 00:11:04,445

and in Cameroun.

362

00:11:04,869 --> 00:11:06,345

The objective of their study was

363

00:11:06,540 --> 00:11:08,565

to assess this strategy and

364

00:11:08,752 --> 00:11:09,777

to assess its impact

365

00:11:09,965 --> 00:11:10,777

on the performance

366

00:11:10,978 --> 00:11:12,615

of community health workers.

367

00:11:12,810 --> 00:11:15,147

So community directed intervention

368

00:11:15,348 --> 00:11:16,247

is this whole idea

369

00:11:16,435 --> 00:11:18,460

of empowering community

370

00:11:18,670 --> 00:11:21,947

to find solutions to challenges

371

00:11:22,147 --> 00:11:23,247

around implementation

372

00:11:23,435 --> 00:11:25,272

of an evidence based intervention

373

00:11:25,460 --> 00:11:27,323

within their locale.

374

00:11:27,518 --> 00:11:29,206

The idea is that if communities

375

00:11:29,410 --> 00:11:31,297

are empowered they're able to direct

376

00:11:31,494 --> 00:11:33,518

appropriate strategy to the area

377

00:11:33,719 --> 00:11:36,281

of interest for their community.

378

00:11:36,469 --> 00:11:38,518

And that in effect will encourage

379

00:11:38,706 --> 00:11:41,480

or allow successful or effective

380

00:11:41,681 --> 00:11:42,493

implementation.

381

00:11:42,685 --> 00:11:44,346

And the idea was that for

382

00:11:44,544 --> 00:11:46,405

the community that underwent

383

00:11:46,606 --> 00:11:48,794

this strategy, they will be trained

384

00:11:48,997 --> 00:11:51,946

in the ability on how to deliver

385

00:11:52,131 --> 00:11:53,506

ivermectin successfully

386

00:11:53,713 --> 00:11:55,163

to their community members.

387

00:11:55,352 --> 00:11:57,451

The training will require some costs

388

00:11:57,651 --> 00:11:59,026

and at the end of the day they will

389

00:11:59,226 --> 00:12:03,151

look at coverage of the spread

390

00:12:03,352 --> 00:12:05,864

or the distribution of the ivermectin

391

00:12:06,064 --> 00:12:08,113

within the community where

392

00:12:08,314 --> 00:12:10,351

the strategy is being implemented.

393

00:12:10,550 --> 00:12:13,362

So, in this study coverage is

394

00:12:13,551 --> 00:12:14,201

an example

395

00:12:14,389 --> 00:12:15,964

of implementation research outcome.

396

00:12:16,163 --> 00:12:17,537

So they looked at the proportion

397

00:12:17,725 --> 00:12:19,124

of people who had received

398

00:12:19,312 --> 00:12:20,062

the ivermectin

399

00:12:20,262 --> 00:12:22,649

under the community directed strategy

400

00:12:22,848 --> 00:12:24,135

and they compared it to people

401

00:12:24,336 --> 00:12:26,197

who have received ivermectin

402

00:12:26,400 --> 00:12:28,462

under the normal status quo

403

00:12:28,663 --> 00:12:30,462

where ivermectin had been

404

00:12:30,650 --> 00:12:31,650

previously delivered.

405

00:12:31,845 --> 00:12:33,219

They also looked at cost:

406

00:12:33,412 --> 00:12:35,561

cost of delivering

407

00:12:35,763 --> 00:12:37,975

even the community directed strategy

408

00:12:38,187 --> 00:12:39,050

including cost

409

00:12:39,255 --> 00:12:41,705

of the Ivermectin control program

410

00:12:41,900 --> 00:12:44,075

within their community.

411

00:12:44,287 --> 00:12:45,986

The findings were that

412

00:12:46,175 --> 00:12:48,611

mass treatment coverage

413

00:12:48,812 --> 00:12:50,650

with Ivermectin increased

414

00:12:50,850 --> 00:12:53,662

as a result of the CDI strategy and

415

00:12:53,875 --> 00:12:55,962

implementation cost reduced over time.

416

00:12:56,149 --> 00:12:57,998

So, in this second example we are

417

00:12:58,199 --> 00:12:59,637

going to be looking at a study

418

00:12:59,848 --> 00:13:02,410

by Akogun et al in Nigeria.

419

00:13:02,621 --> 00:13:03,895

They were looking at how

420

00:13:04,096 --> 00:13:05,533

Nomadic communities

421

00:13:05,733 --> 00:13:07,170

nomadic Fulani communities

422

00:13:07,358 --> 00:13:10,108

treat malaria using some

423

00:13:10,309 --> 00:13:11,621

evidence based intervention

424

00:13:11,821 --> 00:13:13,033

for malaria control.

425

00:13:13,480 --> 00:13:14,905

The objective of the study was

426

00:13:15,106 --> 00:13:17,280

to assess the CDI strategy

427

00:13:17,481 --> 00:13:20,055

on how this improved the coverage

428

00:13:20,255 --> 00:13:22,430

and the acceptability of

429

00:13:22,618 --> 00:13:24,842

the malaria control intervention.

430

00:13:25,043 --> 00:13:26,680

So, specifically they were looking

431

00:13:26,885 --> 00:13:29,096

at training, providing training

432

00:13:29,297 --> 00:13:31,584

to Fulani herdsmen on how

433

00:13:31,785 --> 00:13:33,209

to manage malaria

434

00:13:33,397 --> 00:13:34,572

for under 5 children

435

00:13:34,769 --> 00:13:37,255

using artemisinin combination therapy

436

00:13:37,459 --> 00:13:39,797

and also teaching them on how

437

00:13:39,985 --> 00:13:41,910

to properly use bed nets.

438

00:13:42,396 --> 00:13:43,871

In doing this they are going

439

00:13:44,072 --> 00:13:45,259

to encourage the community

440

00:13:45,461 --> 00:13:47,298

to seek pathways or to seek ways

441

00:13:47,497 --> 00:13:49,296

in which they could successfully

442

00:13:49,485 --> 00:13:51,372

deliver the 2 interventions within

443

00:13:51,572 --> 00:13:52,303

their community.

444

00:13:52,498 --> 00:13:53,835

So it's this whole idea again

445

00:13:54,036 --> 00:13:55,335

of community directedness.

446

00:13:55,531 --> 00:13:56,943

That is to say the communities

447

00:13:57,123 --> 00:13:58,697

put heads together and

448

00:13:58,898 --> 00:14:00,835

decide on how best

449

00:14:01,023 --> 00:14:02,810

to deliver an intervention

450

00:14:03,008 --> 00:14:04,170

or what is the best strategy

451

00:14:04,369 --> 00:14:05,682

to put in place for the delivery

452

00:14:05,886 --> 00:14:06,710

of an intervention.

453

00:14:06,911 --> 00:14:08,223

And we are going to be looking at

454

00:14:08,410 --> 00:14:09,160

how successful

455

00:14:09,361 --> 00:14:11,348

this community directed strategy

456

00:14:11,530 --> 00:14:12,217

is with regards

457

00:14:12,405 --> 00:14:14,429

to the current approach being used

458

00:14:14,617 --> 00:14:15,730

in the health system.

459

00:14:16,263 --> 00:14:17,837

And they measured the test

460

00:14:18,038 --> 00:14:20,487

of this community directed intervention

461

00:14:20,675 --> 00:14:23,224

or strategy by looking at coverage

462

00:14:23,425 --> 00:14:24,899

and also acceptability.

463

00:14:25,099 --> 00:14:26,848

Coverage they looked at to see

464

00:14:27,038 --> 00:14:29,099

whether the people who were under

465

00:14:29,300 --> 00:14:31,387

the community directed strategy

466

00:14:31,587 --> 00:14:34,287

had better access or better coverage

467

00:14:34,480 --> 00:14:36,880

of the malaria control program.

468

00:14:37,093 --> 00:14:38,342

And they also looked at whether

469

00:14:38,543 --> 00:14:40,167

the people that received treatment

470

00:14:40,355 --> 00:14:41,542

from community members

471

00:14:41,730 --> 00:14:43,242

found this agreeable or

472

00:14:43,430 --> 00:14:45,329

were satisfied with the approach

473

00:14:45,530 --> 00:14:46,317

rather than going

474

00:14:46,518 --> 00:14:48,543

to the health facility or going

475

00:14:48,743 --> 00:14:49,843

to the health care worker

476

00:14:50,053 --> 00:14:51,690

to receive the treatment.

477

00:14:51,906 --> 00:14:53,768

And at the end they found that yes,

478

00:14:53,968 --> 00:14:55,530

both malaria control programs

479

00:14:55,739 --> 00:14:56,689

were acceptable to

480

00:14:56,876 --> 00:14:58,738

the nomadic population and there was

481

00:14:58,944 --> 00:15:00,818

an improvement in the coverage overall

482

00:15:01,021 --> 00:15:02,720

with the community directed strategy.

483

00:15:02,931 --> 00:15:03,943

So, in this third example

484

00:15:04,156 --> 00:15:05,393

we are going to be looking at

485

00:15:05,588 --> 00:15:08,212

a study by Akweongo et al and here

486

00:15:08,406 --> 00:15:09,768

we are looking at feasibility

487

00:15:09,956 --> 00:15:11,380

and acceptability

488

00:15:11,581 --> 00:15:13,280

of artemisinin combination therapy.

489

00:15:13,480 --> 00:15:15,805

And the study was conducted in Ghana

490

00:15:15,998 --> 00:15:18,485

Burkina Faso, Ethiopia and Malawi.

491

00:15:18,685 --> 00:15:19,823

At this point I would like

492

00:15:20,035 --> 00:15:22,072

to emphasize again this idea

493

00:15:22,285 --> 00:15:23,172

that was presented

494

00:15:23,361 --> 00:15:24,886

in the first module [even]

495

00:15:25,086 --> 00:15:26,848

of this course,

496

00:15:27,060 --> 00:15:28,760

the idea that implementation research

497

00:15:28,948 --> 00:15:29,623

is often done

498

00:15:29,811 --> 00:15:30,960

in a multi country setting.

499

00:15:31,161 --> 00:15:32,635

That is to say that for us

500

00:15:32,843 --> 00:15:35,217

to establish generalizable evidence

501

00:15:35,411 --> 00:15:37,298

for a set of implementation strategies

502

00:15:37,495 --> 00:15:39,082

or a set of implementation activities,

503

00:15:39,283 --> 00:15:41,232

we have to do it in multiple settings

504

00:15:41,423 --> 00:15:43,547

or in fact do it in multiple countries.

505

00:15:43,749 --> 00:15:44,923

And that's what you see being

506

00:15:45,123 --> 00:15:46,673

demonstrated by some of the studies

507

00:15:46,868 --> 00:15:48,768

that we are looking at today.

508

00:15:49,011 --> 00:15:50,599

So for the study looking

509

00:15:50,787 --> 00:15:52,298

at feasibility and acceptability

510

00:15:52,486 --> 00:15:54,223

of ACT the objective was to see

511

00:15:54,431 --> 00:15:56,192

how feasible it is to use

512

00:15:56,393 --> 00:15:59,668

even community medicine distributors

513

00:15:59,855 --> 00:16:02,679

for case management of malaria

514

00:16:02,889 --> 00:16:03,876

in urban settings.

515

00:16:04,119 --> 00:16:05,618

So the idea is that yes,

516

00:16:05,813 --> 00:16:07,749

community medecine distributors

517

00:16:07,932 --> 00:16:10,457

were being used to manage malaria

518

00:16:10,673 --> 00:16:12,148

for under 5 children in

519

00:16:12,349 --> 00:16:13,185

rural settings.

520

00:16:13,384 --> 00:16:14,871

But thinking about the fact that

521

00:16:15,074 --> 00:16:16,648

more and more countries

522

00:16:16,848 --> 00:16:18,061

in sub-Saharan Africa are

523

00:16:18,248 --> 00:16:19,372

becoming urbanized

524

00:16:19,567 --> 00:16:21,104

so they try to see whether

525

00:16:21,299 --> 00:16:22,336

the same strategy,

526

00:16:22,535 --> 00:16:23,671

that is to use community

527

00:16:23,872 --> 00:16:25,572

medicine distributors to deliver

528

00:16:25,772 --> 00:16:27,134

an evidence based intervention,

529

00:16:27,335 --> 00:16:28,986

would work even in an urban setting.

530

00:16:29,182 --> 00:16:30,743

And then to determine whether

531

00:16:30,934 --> 00:16:32,271

this strategy is going to work

532

00:16:32,477 --> 00:16:33,539

or not or whether this set

533

00:16:33,735 --> 00:16:35,059

of implementation activities

534

00:16:35,265 --> 00:16:36,677

that they are going to put in place

535

00:16:36,879 --> 00:16:37,604

are going to work,

536

00:16:37,811 --> 00:16:39,223

they looked at specific measures

537

00:16:39,422 --> 00:16:41,034

of implementation research outcomes.

538

00:16:41,237 --> 00:16:43,049

They looked at fidelity, that is, to

539

00:16:43,250 --> 00:16:43,861

look at for all

540

00:16:44,068 --> 00:16:45,193

the community medecine

541

00:16:45,387 --> 00:16:46,900

distributors that were trained

542

00:16:47,087 --> 00:16:48,399

to what extent did they deliver

543

00:16:48,615 --> 00:16:50,002

[even] the intervention

544

00:16:50,212 --> 00:16:51,149

as they were trained

545

00:16:51,344 --> 00:16:52,981

according to the protocol in terms

546

00:16:53,181 --> 00:16:54,430

of the dosage, the frequency

547

00:16:54,631 --> 00:16:55,718

by which the children should've

548

00:16:55,905 --> 00:16:57,119

received the intervention.

549

00:16:57,314 --> 00:16:58,602

They also looked at the coverage.

550

00:16:58,802 --> 00:17:00,551

That is to say the number of children

551

00:17:00,756 --> 00:17:01,818

who should receive

552

00:17:02,023 --> 00:17:03,048

the malaria treatment,

553

00:17:03,242 --> 00:17:04,679

the appropriate malaria treatment.

554

00:17:04,865 --> 00:17:06,277

How many of them did receive

555

00:17:06,468 --> 00:17:07,180

the treatment?

556

00:17:07,383 --> 00:17:08,870

And then they looked at feasibility.

557

00:17:09,069 --> 00:17:09,805

This whole idea that

558

00:17:10,006 --> 00:17:11,743

it's even possible for us to be able

559

00:17:11,944 --> 00:17:13,718

to do this in an urban setting

560

00:17:13,917 --> 00:17:14,316

at all.

561

00:17:14,513 --> 00:17:16,062

Is this actually feasible?

562

00:17:16,264 --> 00:17:17,151

And at the end of the day

563

00:17:17,368 --> 00:17:18,305

they concluded that yes,

564

00:17:18,506 --> 00:17:20,805

case management of malaria

565

00:17:21,015 --> 00:17:23,453

could actually be done successfully

566

00:17:23,652 --> 00:17:25,364

by community medecine distributors

567

00:17:25,565 --> 00:17:26,339

even in an urban setting

568

00:17:26,548 --> 00:17:28,822

based on the changes in fidelity,

569

00:17:29,028 --> 00:17:30,977

coverage and feasibility.

570

00:17:31,178 --> 00:17:33,215

So for the fourth example we look at

571

00:17:33,416 --> 00:17:35,965

a study by Okeibunor et al in Nigeria

572

00:17:36,166 --> 00:17:38,140

and in Togo and Cameroun.

573

00:17:38,340 --> 00:17:39,740

They are looking at the use

574

00:17:39,940 --> 00:17:41,977

of community-directed distributors

575

00:17:42,178 --> 00:17:44,052

of ivermectin for other

576

00:17:44,253 --> 00:17:45,703

public health control programs.

577

00:17:45,942 --> 00:17:47,741

So this whole idea that yes we have

578

00:17:47,942 --> 00:17:50,654

these community distributors within

579

00:17:50,855 --> 00:17:52,955

villages or rural areas.

580

00:17:53,154 --> 00:17:54,791

That is to say can they be used also

581

00:17:54,996 --> 00:17:55,807

for some other

582

00:17:55,994 --> 00:17:57,143

public health programming

583

00:17:57,338 --> 00:17:58,512

including [areas] like sanitation,

584

00:17:58,713 --> 00:18:00,513

immunization activities and so on?

585

00:18:00,705 --> 00:18:02,254

And does this inclusion

586

00:18:02,451 --> 00:18:05,262

negatively impact the activities

587

00:18:05,463 --> 00:18:06,550

in delivering

588

00:18:06,759 --> 00:18:08,558

the ivermectin control programme

589

00:18:08,772 --> 00:18:10,347

that they were originally slated for?

590

00:18:10,560 --> 00:18:12,959

And in studying this they looked

591

00:18:13,160 --> 00:18:13,671

at specific

592

00:18:13,859 --> 00:18:15,384

implementation research outcomes.

593

00:18:15,586 --> 00:18:16,998

First they looked at feasibility.

594

00:18:17,197 --> 00:18:19,071

That is to say is it possible at all

595

00:18:19,281 --> 00:18:20,718

to actually incorporate

596

00:18:20,914 --> 00:18:21,938

additional tasks

597

00:18:22,137 --> 00:18:24,573

for these community distributors

598

00:18:24,783 --> 00:18:26,308

of the ivermectin control programme?

599

00:18:26,508 --> 00:18:28,120

For instance, could they be involved

600

00:18:28,308 --> 00:18:29,770

[even] in sanitation, could they

601

00:18:29,971 --> 00:18:32,007

be involved in immunization and

602

00:18:32,208 --> 00:18:33,095

nutrition programmes

603

00:18:33,296 --> 00:18:34,171

in their community?

604

00:18:34,367 --> 00:18:35,804

And without that negatively

605

00:18:36,017 --> 00:18:37,965

or adversely affecting their work

606

00:18:38,174 --> 00:18:39,336

in ivermectin control?

607

00:18:39,540 --> 00:18:40,964

And they also looked at coverage.

608

00:18:41,171 --> 00:18:42,107

That is to say that

609

00:18:42,307 --> 00:18:43,794

does the proportion of people

610

00:18:43,997 --> 00:18:45,722

that received ivermectin change

611

00:18:45,916 --> 00:18:47,140

with the inclusion

612

00:18:47,349 --> 00:18:48,948

of additional tasks

613

00:18:49,141 --> 00:18:50,253

for these community

614

00:18:50,472 --> 00:18:51,959

distributors in their community?

615

00:18:52,149 --> 00:18:54,286

So, at the end they concluded that yes

616

00:18:54,498 --> 00:18:55,424

involvement of these

617

00:18:55,624 --> 00:18:57,336

community-directed distributors

618

00:18:57,534 --> 00:18:59,295

in other public health activities

619

00:18:59,499 --> 00:19:00,686

even in their community

620

00:19:00,893 --> 00:19:02,867

did not have a negative impact

621

00:19:03,062 --> 00:19:05,313

on the ivermectin control programme.

622

00:19:05,700 --> 00:19:07,149

So far we have looked at

623

00:19:07,357 --> 00:19:09,081

4 different examples

624

00:19:09,288 --> 00:19:11,062

of implementation research studies

625

00:19:11,267 --> 00:19:12,304

that were done using

626

00:19:12,497 --> 00:19:14,685

implementation research outcomes

627

00:19:14,911 --> 00:19:16,736

as a measure of effectiveness

628

00:19:16,961 --> 00:19:18,648

of implementation activities

629

00:19:19,145 --> 00:19:20,207

in different parts

630

00:19:20,397 --> 00:19:21,747

of sub-Saharan Africa.

631

00:19:22,296 --> 00:19:24,345

When we come back we will continue

632

00:19:24,548 --> 00:19:25,760

with 2 additional examples

633

00:19:25,968 --> 00:19:26,843

and then we will look

634

00:19:27,051 --> 00:19:28,113

at other usefulness

635

00:19:28,316 --> 00:19:30,191

of implementation research outcomes,

636

00:19:30,387 --> 00:19:30,937

such as

637

00:19:31,139 --> 00:19:32,664

implementation research outcomes

638

00:19:32,871 --> 00:19:34,345

being used for the assessment

639

00:19:34,539 --> 00:19:35,750

of health system readiness

640

00:19:35,944 --> 00:19:36,906

and the relevance

641

00:19:37,112 --> 00:19:39,211

of implementation research outcomes

642

00:19:39,410 --> 00:19:41,771

for different stages of implementation

643

00:19:41,968 --> 00:19:43,993

or implementation activities.

[**https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/a1146fc7e45c4f689abef12691731330/?child=first**](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/a1146fc7e45c4f689abef12691731330/?child=first)

[Course](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/)  [Module 4: Implementation Research Outcomes](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@chapter+block@ddde7302c3d443559d695bb1122135e5)  [Examples of Implementation Research Outcomes](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@sequential+block@a1146fc7e45c4f689abef12691731330)  Examples of Implementation Research Outcomes 2

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2. video Examples of Implementation Research Outcomes 2
3. other Resources and References

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## Examples of Implementation Research Outcomes 2

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### Objectives

At the end of this section you will be able to:

* Describe common constructs used as IROs and examples of IROs used in TDR IR
* Describe the relevance of different IROs for different temporal stages of implementation
* Describe examples of IROs that are relevant for assessing health system readiness

### Examples of Implementation Research Outcomes 2

0

00:00:04,009 --> 00:00:08,071

Here we are going to continue with our review of these studies

1

00:00:08,280 --> 00:00:10,755

that have used implementation research outcomes,

2

00:00:10,889 --> 00:00:13,476

and we're going to be looking at two additional papers

3

00:00:13,632 --> 00:00:16,645

in addition to the four papers that we have examined

4

00:00:16,839 --> 00:00:18,289

in the second video.

5

00:00:18,480 --> 00:00:21,730

In the fifth example, we look at how

6

00:00:21,927 --> 00:00:24,715

the impact of pre-packaging antimalarials

7

00:00:24,900 --> 00:00:28,575

and what is the impact of these on early treatment of childhood fever.

8

00:00:28,730 --> 00:00:31,455

This is the study that was done by Sirima et al

9

00:00:31,661 --> 00:00:33,736

in Burkina Faso and they were looking

10

00:00:33,937 --> 00:00:36,587

at whether training mothers on how to use

11

00:00:36,766 --> 00:00:41,353

pre-packaged antimalarials could help to control malaria

12

00:00:41,481 --> 00:00:42,656

for very young children.

13

00:00:42,819 --> 00:00:45,469

So these are malaria drugs that have been pre-packaged

14

00:00:45,618 --> 00:00:48,106

by dose for different age groups,

15

00:00:48,328 --> 00:00:51,478

and the mothers were provided training on how to use these.

16

00:00:51,719 --> 00:00:54,756

And again, they looked at whether mothers were indeed able

17

00:00:54,972 --> 00:00:57,172

to carry out what they were trained to do.

18

00:00:57,363 --> 00:00:59,563

That is to say they measured fidelity:

19

00:00:59,728 --> 00:01:01,915

to what extent can mothers carry out

20

00:01:02,067 --> 00:01:04,567

the set of implementation activities

21

00:01:04,751 --> 00:01:07,801

around the delivery of the pre-packaged antimalarials

22

00:01:07,971 --> 00:01:09,433

for their children.

23

00:01:09,664 --> 00:01:13,014

And at the end, they found that yes, indeed with appropriate training

24

00:01:13,198 --> 00:01:15,735

mothers actually can do this successfully.

25

00:01:15,908 --> 00:01:19,595

That is to say, that the programme had high fidelity

26

00:01:19,760 --> 00:01:22,848

and the additional thing that they did in this study,

27

00:01:23,034 --> 00:01:26,259

is that they were able to show how this change in implementation

28

00:01:26,477 --> 00:01:30,339

research outcome that is, fidelity, was linked to health outcomes

29

00:01:30,541 --> 00:01:33,066

because they were able to also show in the same study

30

00:01:33,244 --> 00:01:36,519

that not only was there high fidelity with regards to

31

00:01:36,723 --> 00:01:39,948

the way the mothers were using the pre-packaged antimalarials

32

00:01:40,122 --> 00:01:43,772

but they were also able to show that this led to the reduction

33

00:01:43,962 --> 00:01:47,900

in the incidence of severe malaria.

34

00:01:48,077 --> 00:01:52,190

So the last example that we're going to see today

35

00:01:52,369 --> 00:01:56,056

from the projects that have been supported by TDR

36

00:01:56,229 --> 00:02:00,054

is a study by Akogun et al in Nigeria.

37

00:02:00,207 --> 00:02:02,832

The study looked at community directed treatment

38

00:02:03,021 --> 00:02:02,221

of onchocerciasis with ivermectin.

39

00:02:05,987 --> 00:02:08,875

So they were looking at testing different strategies

40

00:02:09,058 --> 00:02:13,496

in delivering ivermectin within the community.

41

00:02:13,662 --> 00:02:15,312

So there were two main [strategies] here.

42

00:02:15,500 --> 00:02:17,687

We had a set of strategies

43

00:02:17,911 --> 00:02:20,074

that were designed according to the programme

44

00:02:20,231 --> 00:02:23,006

and then we had another set of strategies that were designed

45

00:02:23,190 --> 00:02:24,715

by the community themselves,

46

00:02:24,920 --> 00:02:28,207

and then both of these strategies were compared

47

00:02:28,418 --> 00:02:30,743

to the current status quo, that is to say,

48

00:02:30,944 --> 00:02:34,919

having the whole system run the programme as it normally had been

49

00:02:35,107 --> 00:02:38,007

even before the strategies were implemented.

50

00:02:38,174 --> 00:02:41,187

And they tested even these different strategies

51

00:02:41,373 --> 00:02:45,973

by looking at changes in fidelity, coverage, cost and feasibility,

52

00:02:46,202 --> 00:02:51,002

and they were able to show that either the programme design strategy,

53

00:02:51,168 --> 00:02:54,155

that is to say, choosing village heads

54

00:02:54,371 --> 00:02:57,883

or women within the community to deliver ivermectin

55

00:02:58,066 --> 00:03:01,353

or the community designed strategy that ,

56

00:03:01,523 --> 00:03:04,785

they actually worked in terms of adhering

57

00:03:02,260 --> 00:03:05,260

58

00:03:04,957 --> 00:03:07,532

to the core components of the control programmes.

59

00:03:07,730 --> 00:03:10,680

And they also saw that the cost was reasonable, even overtime,

60

00:03:10,841 --> 00:03:14,479

and the coverage of the ivermectin control

61

00:03:14,648 --> 00:03:17,010

was sufficiently high and then, that indeed that

62

00:03:17,215 --> 00:03:18,740

it was possible, it was feasible

63

00:03:18,926 --> 00:03:21,539

for the these different strategies to be carried out

64

00:03:21,693 --> 00:03:23,193

within this community.

65

00:03:23,346 --> 00:03:27,433

In this second section, we're looking at how relevant

66

00:03:27,592 --> 00:03:30,792

implementation research outcomes are for different stages

67

00:03:30,998 --> 00:03:33,223

or phases of implementation research.

68

00:03:33,375 --> 00:03:35,587

Remember during the introduction

69

00:03:35,746 --> 00:03:39,696

we have discussed implementation activities, research or practice

70

00:03:39,839 --> 00:03:42,576

as involving three main phases.

71

00:03:42,754 --> 00:03:46,517

The first phase is the early phase where you're contemplating

72

00:03:46,675 --> 00:03:50,425

or planning, or deciding to implement

73

00:03:50,587 --> 00:03:52,862

an evidence based intervention.

74

00:03:53,048 --> 00:03:56,148

And then the second phase is the middle phase

75

00:03:56,315 --> 00:03:59,827

where the intervention has been ongoing for quite a while

76

00:04:00,004 --> 00:04:03,916

and the concern is around ensuring quality of delivery

77

00:04:04,090 --> 00:04:06,490

and continuous improvement overtime.

78

00:04:06,651 --> 00:04:09,626

And the last phase is when the intervention has been done

79

00:04:09,806 --> 00:04:13,581

for some time, and one is beginning to transition into integrating

80

00:04:13,765 --> 00:04:16,565

the intervention into the current system

81

00:04:16,715 --> 00:04:19,203

within the setting or the organization

82

00:04:19,388 --> 00:04:21,613

What we found out is that different types

83

00:04:21,779 --> 00:04:25,904

of implementation research outcomes are actually useful as measures

84

00:04:26,069 --> 00:04:30,231

of success, during the different phases of implementation.

85

00:04:30,403 --> 00:04:33,916

For the early phase, measures such as acceptability,

86

00:04:34,082 --> 00:04:37,020

such as feasibility or appropriateness

87

00:04:37,181 --> 00:04:40,431

are useful to help us gauge the readiness

88

00:04:40,581 --> 00:04:43,344

of the particular organization or setting,

89

00:04:43,534 --> 00:04:45,609

in adopting an intervention

90

00:04:45,778 --> 00:04:50,091

or also engaging the likelihood of success of the intervention.

91

00:04:50,846 --> 00:04:53,234

And thenother measures like acceptability,

92

00:04:53,400 --> 00:04:58,162

adoption, feasibility, fidelity, cost and coverage,

93

00:04:58,319 --> 00:05:01,844

are useful for the middle phase when the intervention

94

00:05:01,996 --> 00:05:04,071

would have been carried out for some time.

95

00:05:04,229 --> 00:05:07,416

So you see, it doesn't make sense for us to begin to measure fidelity

96

00:05:07,570 --> 00:05:08,870

during the early phase,

97

00:05:09,044 --> 00:05:11,319

because [the] early phase is still the time

98

00:05:11,472 --> 00:05:14,060

when we're still planning and we're trying to carry out

99

00:05:14,258 --> 00:05:15,933

the intervention as we should.

100

00:05:16,113 --> 00:05:19,176

While it makes a lot of sense for us to begin to measure fidelity,

101

00:05:19,332 --> 00:05:22,144

that is to say, what is the quality of the delivery,

102

00:05:22,319 --> 00:05:25,669

to what extent are they adhering to the protocol of the intervention

103

00:05:25,814 --> 00:05:28,164

during the middle phase when the intervention

104

00:05:28,317 --> 00:05:30,280

has been ongoing for a while.

105

00:05:30,428 --> 00:05:33,191

And then we have the late implementation stage

106

00:05:33,336 --> 00:05:37,173

where we're thinking more of integrating the intervention

107

00:05:37,359 --> 00:05:40,597

into an existing system, and here we're thinking about

108

00:05:40,771 --> 00:05:44,859

issues of sustainability, we're thinking about issues

109

00:05:45,027 --> 00:05:47,439

around coverage; how can we increase the coverage,

110

00:05:47,577 --> 00:05:51,615

how can we scale up the intervention and so on and so forth.

111

00:05:51,774 --> 00:05:54,711

So we have specific implementation research outcomes

112

00:05:54,860 --> 00:05:57,597

that are also appropriate for this stage.

113

00:05:57,769 --> 00:06:01,694

The point to make in section two, is that different types

114

00:06:01,853 --> 00:06:05,616

of implementation research outcomes are relevant for measuring

115

00:06:05,843 --> 00:06:09,268

effectiveness of implementation activities at different stages.

116

00:06:09,440 --> 00:06:12,328

There are some implementation research outcomes

117

00:06:12,518 --> 00:06:14,493

that are useful during the early stage,

118

00:06:14,640 --> 00:06:17,303

there are some that are useful during the middle stage,

119

00:06:17,418 --> 00:06:20,418

and there are others that are useful during the late stage.

120

00:06:20,568 --> 00:06:23,468

The importance is to be able to know at what stage

121

00:06:23,598 --> 00:06:26,323

the implementation activity is, and what set

122

00:06:26,466 --> 00:06:29,504

of implementation research outcomes to prescribe as the test

123

00:06:29,707 --> 00:06:32,169

of our implementation research effectiveness.

124

00:06:32,396 --> 00:06:34,921

So in this section, we're going to be looking at

125

00:06:35,102 --> 00:06:38,389

the usefulness of implementation research outcomes

126

00:06:38,556 --> 00:06:41,881

as measures of contextual factors that could be used

127

00:06:42,074 --> 00:06:43,924

to access health system readiness.

128

00:06:44,131 --> 00:06:46,506

We acknowledge that there are other indicators

129

00:06:46,703 --> 00:06:48,615

that are in use or that have been proposed.

130

00:06:48,737 --> 00:06:51,212

For instance, some people use the balance score card

131

00:06:51,362 --> 00:06:52,712

and some people use

132

00:06:52,884 --> 00:06:55,096

the service readiness assessment tool designed

133

00:06:55,284 --> 00:06:59,009

by WHO as measures of some contextual factors

134

00:06:59,186 --> 00:07:01,249

at the downstream of the health system,

135

00:07:01,413 --> 00:07:03,688

even as a measure of health system readiness.

136

00:07:03,913 --> 00:07:07,088

However, the utility of implementation research outcomes

137

00:07:07,241 --> 00:07:10,853

is that it could be used to measure some upstream contextual factors.

138

00:07:10,973 --> 00:07:13,661

Example of downstream contextual factors

139

00:07:13,824 --> 00:07:16,686

would be things like infrastructure that are available

140

00:07:16,906 --> 00:07:20,194

within the health system, the staffing, level of staffing,

141

00:07:20,366 --> 00:07:23,154

the level of resources that is available to the staff

142

00:07:23,328 --> 00:07:24,553

and so on and so forth.

143

00:07:24,715 --> 00:07:27,590

There are tools that are useful n for doing this already.

144

00:07:27,740 --> 00:07:30,052

However, some of these tools do not measure

145

00:07:30,225 --> 00:07:33,488

optional factors such as what is the willingness

146

00:07:33,654 --> 00:07:36,342

of a community to adopt an intervention,

147

00:07:36,496 --> 00:07:38,458

is there a push? Is there a pull?

148

00:07:38,608 --> 00:07:41,958

Is there a demand for implementation activities, and so on and so forth?

149

00:07:42,180 --> 00:07:44,643

This is where implementation research outcomes

150

00:07:44,765 --> 00:07:47,990

could serve as a complement to some of the existing tools

151

00:07:48,133 --> 00:07:50,283

for assessing health system readiness.

152

00:07:50,444 --> 00:07:53,094

For instance, we might be interested in knowing

153

00:07:53,260 --> 00:07:55,935

who are our main stakeholders for the adoption

154

00:07:54,160 --> 00:07:57,160

155

00:07:56,103 --> 00:07:57,578

of this intervention.

156

00:07:57,747 --> 00:08:00,109

We might be interested in knowing whether there is the demand

157

00:08:00,306 --> 00:08:02,031

to implement the intervention.

158

00:08:02,231 --> 00:08:05,893

We might be also interested to know, is there a push out by donors

159

00:08:06,038 --> 00:08:09,338

or by some other stakeholders who are external to the setting

160

00:08:09,495 --> 00:08:12,095

in which the intervention is going to be implemented,

161

00:08:12,270 --> 00:08:14,395

or might in fact want to know whether there is a pull.

162

00:08:14,607 --> 00:08:17,170

That is to say, are the community really making a demand?

163

00:08:17,333 --> 00:08:20,970

Are they really eager to have interventions in place

164

00:08:21,108 --> 00:08:22,545

within their settings?

165

00:08:22,728 --> 00:08:25,665

Or we might also want to know what are the infrastructures?

166

00:08:25,811 --> 00:08:28,336

Apart from the infrastructures that are available

167

00:08:28,503 --> 00:08:31,078

at the health system level, what are the infrastructures

168

00:08:31,267 --> 00:08:33,967

that are available that will enhance even the smooth uptake

169

00:08:34,150 --> 00:08:35,250

of the intervention?

170

00:08:35,451 --> 00:08:38,601

For all of these broad domains, implementation research

outcomes

171

00:08:38,794 --> 00:08:40,119

could really be useful.

172

00:08:40,314 --> 00:08:43,302

So the point here is this, that implementation research outcome

173

00:08:43,504 --> 00:08:44,841

has utility.

174

00:08:45,034 --> 00:08:47,984

It has utility for testing implementation effectiveness.

175

00:08:48,147 --> 00:08:51,072

It is salient for different stages of implementation

176

00:08:51,221 --> 00:08:54,246

and again, it is also useful for assessing

177

00:08:54,406 --> 00:08:57,643

upstream contextual factors that can allow us to gauge

178

00:08:57,802 --> 00:09:01,915

the readiness of the health systems to adopt an intervention.

179

00:09:02,692 --> 00:09:06,167

We're going to round up this chapter by looking again,

180

00:09:06,345 --> 00:09:08,933

at the quiz that we presented at the very beginning.

181

00:09:09,089 --> 00:09:12,601

I know by now, a lot of the concepts and a lot of the questions

182

00:09:12,764 --> 00:09:15,314

that were asked in the quiz would have become more clear

183

00:09:15,494 --> 00:09:16,481

to you

184

00:09:16,602 --> 00:09:19,964

So let's look together again, at the quiz questions

185

00:09:20,112 --> 00:09:22,224

and let's see what the right answers are.

186

00:09:22,378 --> 00:09:26,990

So the first question we had asked you if the following are examples

187

00:09:27,147 --> 00:09:28,997

of implementation research outcomes.

188

00:09:29,189 --> 00:09:32,164

Mortality, mobility, and disease incidence.

189

00:09:32,327 --> 00:09:35,427

So you will agree with me that these are really health outcomes

190

00:09:35,588 --> 00:09:38,751

and they are not examples of implementation research outcomes.

191

00:09:39,490 --> 00:09:43,290

The second question asked you if implementation research outcomes

192

00:09:43,450 --> 00:09:45,338

are only single-domain constructs

193

00:09:45,573 --> 00:09:48,036

and if they are heuristically defined.

194

00:09:48,197 --> 00:09:50,472

Again, the right answer here

195

00:09:50,702 --> 00:09:54,365

will be false, because we know that implementation research outcomes

196

00:09:54,518 --> 00:09:57,755

could be construed as single-domain constructs

197

00:09:57,953 --> 00:10:00,778

such as implementation costs, acceptability,

198

00:10:00,948 --> 00:10:05,073

or they could also be construed as multi-domain constructs

199

00:10:05,219 --> 00:10:08,056

such as fidelity and feasibility.

200

00:10:08,214 --> 00:10:12,089

However, we know that invariably all implementation research outcomes

201

00:10:12,271 --> 00:10:14,183

are heuristically defined.

202

00:10:14,343 --> 00:10:17,380

We said that they are defined based on the actual experience

203

00:10:17,535 --> 00:10:18,997

of the implementation.

204

00:10:19,142 --> 00:10:21,667

That is to say, their definition is operationalized

205

00:10:21,781 --> 00:10:25,881

based on how the implementation activities are carried out.

206

00:10:26,037 --> 00:10:30,012

Now, the third question asked you whether implementation fidelity

207

00:10:30,143 --> 00:10:32,468

could be assessed by examining adherence

208

00:10:32,628 --> 00:10:35,503

to the intervention protocol and quality of delivery.

209

00:10:35,658 --> 00:10:37,795

And the right response here, is true.

210

00:10:37,951 --> 00:10:41,626

Measure of adherence, measures of quality of delivery

211

00:10:41,777 --> 00:10:45,702

of dosage, of frequency and so on, are examples of ways

212

00:10:45,843 --> 00:10:48,668

by which we can take measures of implementation fidelity.

213

00:10:48,839 --> 00:10:51,939

And then the fourth question asked you

214

00:10:52,109 --> 00:10:55,359

whether various implementation research outcomes are relevant

215

00:10:55,413 --> 00:10:59,275

for research focused on different temporal stages of implementation.

216

00:10:59,417 --> 00:11:01,042

Yes, the answer here is true.

217

00:11:01,221 --> 00:11:03,633

Remember that diagram that we showed you

218

00:11:03,776 --> 00:11:05,789

that we can think about implementation

219

00:11:05,949 --> 00:11:07,599

consisting of different stages

220

00:11:07,777 --> 00:11:10,964

The early stage, the middle stage and the late stage,

221

00:11:11,103 --> 00:11:14,565

and we said that different types of implementation research outcomes

222

00:11:14,728 --> 00:11:18,978

are relevant, are salient for these different stages of implementation.

223

00:11:19,111 --> 00:11:22,649

And the last question asked you, whether fidelity measures

224

00:11:22,802 --> 00:11:25,877

are some of the most common implementation research outcomes

225

00:11:26,015 --> 00:11:28,078

in assessing health systems' readiness.

226

00:11:28,243 --> 00:11:30,693

Now, the right answer here is false.

227

00:11:30,855 --> 00:11:33,768

However, this is a little bit tricky because we really

228

00:11:33,933 --> 00:11:36,433

need to think about what we're trying to accomplish

229

00:11:36,501 --> 00:11:38,438

when we measure health systems' readiness.

230

00:11:38,500 --> 00:11:40,388

When we measure health systems' readiness,

231

00:11:40,500 --> 00:11:43,600

we're trying to gauge the readiness of the health systems.

232

00:11:43,764 --> 00:11:46,414

We're trying to gauge the willingness of participants

233

00:11:46,498 --> 00:11:47,786

to adapt to intervention,

234

00:11:47,886 --> 00:11:50,223

we're trying to assess the strengths and the weaknesses

235

00:11:50,390 --> 00:11:51,715

within the system.

236

00:11:51,864 --> 00:11:55,201

We're trying to use that to predict how successful our intervention,

237

00:11:55,331 --> 00:11:57,918

or our implementation activities are going to be.

238

00:11:58,086 --> 00:12:01,374

However, when we do measures of fidelity,

239

00:12:01,548 --> 00:12:03,773

we actually would have had to be carrying out

240

00:12:03,916 --> 00:12:05,403

the implementation projects.

241

00:12:05,550 --> 00:12:08,625

So you see that, in that regard, implementation fidelity

242

00:12:08,795 --> 00:12:11,745

might not be a good measure of our system's readiness.

243

00:12:11,885 --> 00:12:16,335

So, this concludes chapter two, of module four,

244

00:12:16,491 --> 00:12:18,978

and when we come back in chapter three,

245

00:12:19,142 --> 00:12:21,292

we're going to be looking at how to measure

246

00:12:21,423 --> 00:12:25,723

implementation research outcomes, thank you.

**rmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/a1146fc7e45c4f689abef12691731330/?child=first**

[Course](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/)  [Module 4: Implementation Research Outcomes](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@chapter+block@ddde7302c3d443559d695bb1122135e5)  [Examples of Implementation Research Outcomes](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@sequential+block@a1146fc7e45c4f689abef12691731330)  Resources and References

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2. video Examples of Implementation Research Outcomes 2
3. other Resources and References

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## Resources and References

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### ****Resources****

Presentation available for download [**here**](https://www.tdrmooc.org/assets/courseware/v1/09bcd78dfe40425657edc4c8868b4815/asset-v1:TDR+IR+2016+type@asset+block/Module4_Chapter_2.pdf).

**Video**

* [BBC World's Kill or Cure television programme on home management of malaria](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/a1146fc7e45c4f689abef12691731330/BBC%20World's%20Kill%20or%20Cure%20television%20programme%20on%20home%20management%20of%20malaria).

**Link/URL**

* The service availability and readiness assessment (SARA) methodology was developed through a joint World Health Organization (WHO)/ United States Agency for International Development (USAID) collaboration to fill critical gaps in measuring and tracking progress in health systems strengthening. [**Introduction**](http://www.who.int/healthinfo/systems/sara_introduction/en%20), [**Reference manual**](http://www.who.int/healthinfo/systems/SARA_Reference_Manual_Full.pdf).

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* 8. Sirima SB, et al. Early treatment of childhood fevers with pre-packaged antimalarial drugs in the home reduces severe malaria morbidity in Burkina Faso. *Tropical medicine and international health*, 2003, (2):133-139. [**Document here**](http://onlinelibrary.wiley.com/doi/10.1046/j.1365-3156.2003.00997.x/epdf).

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[urse](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/)  [Module 4: Implementation Research Outcomes](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@chapter+block@ddde7302c3d443559d695bb1122135e5)  [Describe how to measure IRO (Implementation Research Outcome)](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@sequential+block@9e3d6e55d8524b3092007b575127ff10) Describe how to measure IRO (Implementation Research Outcome)

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## Describe how to measure IRO (Implementation Research Outcome)

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### Objectives

At the end of this section you will be able to:

* Present examples of how IROs have been operationalized in TDR IR
* Describe data sources and data collection approaches for IRO

## Describe how to measure IRO (Implementation Research Outcome)

* 0
* 00:00:04,472 --> 00:00:07,584
* <i>Chapter 3, Implementation Research Outcomes. </i>
* 1
* 00:00:07,789 --> 00:00:10,601
* Hi, my name is Vivian Go, and I'm an Associate Professor
* 2
* 00:00:10,800 --> 00:00:13,226
* in the Department of Health Behavior at Gillings School
* 3
* 00:00:13,430 --> 00:00:14,617
* of Global Public Health
* 4
* 00:00:14,815 --> 00:00:17,352
* at the University of North Carolina in Chapel Hill.
* 5
* 00:00:17,556 --> 00:00:19,605
* Today, we're going to talk about how to measure
* 6
* 00:00:19,791 --> 00:00:22,030
* implementation research outcomes.
* 7
* 00:00:22,233 --> 00:00:25,120
* In chapter one, Dr. Alonge discussed the differences
* 8
* 00:00:25,320 --> 00:00:28,670
* between innovation efficacy, innovation effectiveness
* 9
* 00:00:28,856 --> 00:00:30,919
* and implementation effectiveness.
* 10
* 00:00:31,089 --> 00:00:34,338
* Then in chapter two, Dr. Alonge introduced six examples
* 11
* 00:00:34,531 --> 00:00:39,157
* of field studies conducted in Africa on infectious diseases of poverty,
* 12
* 00:00:39,337 --> 00:00:41,499
* and the implementation research outcomes
* 13
* 00:00:41,683 --> 00:00:44,121
* that each of these studies utilized.
* 14
* 00:00:44,329 --> 00:00:47,004
* In chapter three, I'll be talking about how to measure
* 15
* 00:00:47,200 --> 00:00:51,312
* implementation research outcomes using these same six examples.
* 16
* 00:00:51,518 --> 00:00:55,493
* This chapter specifically will to be divided to two sections.
* 17
* 00:00:56,539 --> 00:00:59,275
* In section one, we will discuss examples
* 18
* 00:00:59,473 --> 00:01:02,498
* of how implementation research outcomes have been defined
* 19
* 00:01:02,685 --> 00:01:05,547
* and operationalized in implementation research
* 20
* 00:01:05,730 --> 00:01:08,604
* focused on infectious diseases of poverty in the field.
* 21
* 00:01:09,263 --> 00:01:12,350
* In section two, we will describe data sources.
* 22
* 00:01:12,558 --> 00:01:14,996
* In other words, from whom we will collect data from
* 23
* 00:01:15,182 --> 00:01:17,005
* and data collection approaches.
* 24
* 00:01:17,214 --> 00:01:19,876
* In other words, what methods we will use to collect data
* 25
* 00:01:20,104 --> 00:01:22,967
* to support implementation research outcomes.
* 26
* 00:01:23,147 --> 00:01:25,999
* Let's start by taking a little quiz to gauge your awareness
* 27
* 00:01:26,199 --> 00:01:27,048
* of these issues.
* 28
* 00:01:27,235 --> 00:01:29,598
* This is just for you to get a sense of what you know
* 29
* 00:01:29,774 --> 00:01:32,362
* and what you don't know but can learn from this chapter.
* 30
* 00:01:32,573 --> 00:01:34,510
* I'm going to read four statements.
* 31
* 00:01:34,716 --> 00:01:37,541
* Please take a moment to write one to four on a piece of paper.
* 32
* 00:01:37,739 --> 00:01:40,939
* After each statement I read, mark if you think the statement
* 33
* 00:01:41,151 --> 00:01:44,464
* is true or false on the paper, next to the statement number.
* 34
* 00:01:44,648 --> 00:01:47,374
* At the end of chapter three, I'll revisit the statements
* 35
* 00:01:47,587 --> 00:01:50,874
* and go over why each of them is either true or false.
* 36
* 00:01:51,830 --> 00:01:54,529
* Statement number one, true or false.
* 37
* 00:01:54,745 --> 00:01:57,370
* Data for measuring implementation research outcomes
* 38
* 00:01:57,567 --> 00:02:01,731
* are often collected across multiple socioecological levels.
* 39
* 00:02:01,929 --> 00:02:05,191
* By socio-ecological levels, I mean individual levels,
* 40
* 00:02:05,402 --> 00:02:08,053
* community level, organizational level, etc.
* 41
* 00:02:09,470 --> 00:02:11,858
* Statement number two, true or false.
* 42
* 00:02:12,075 --> 00:02:14,313
* Data on implementation research outcomes
* 43
* 00:02:14,529 --> 00:02:16,429
* can be collected using both qualitative
* 44
* 00:02:16,614 --> 00:02:18,651
* and quantitative methods.
* 45
* 00:02:19,790 --> 00:02:23,165
* Statement number three, true or false.
* 46
* 00:02:23,344 --> 00:02:26,257
* Administrative data are useful sources of information
* 47
* 00:02:26,450 --> 00:02:28,938
* for measuring implementation research outcomes
* 48
* 00:02:29,123 --> 00:02:30,810
* such as cost and fidelity.
* 49
* 00:02:31,014 --> 00:02:34,301
* By administrative data, we mean data that is already being collected
* 50
* 00:02:34,503 --> 00:02:36,604
* by the organization or programme.
* 51
* 00:02:37,549 --> 00:02:40,848
* Statement number four, true or false.
* 52
* 00:02:41,052 --> 00:02:43,589
* Measurement of implementation research can often
* 53
* 00:02:43,784 --> 00:02:45,435
* involve scale development.
* 54
* 00:02:46,155 --> 00:02:48,868
* You can set aside your paper now and we'll go back
* 55
* 00:02:49,037 --> 00:02:51,561
* and revisit these statements and the correct answers
* 56
* 00:02:51,738 --> 00:02:53,150
* at the end of this chapter.
* 57
* 00:02:53,343 --> 00:02:55,342
* In the meantime, let's go over these concepts
* 58
* 00:02:55,555 --> 00:02:57,194
* in the next two sessions.
* 59
* 00:02:57,439 --> 00:03:00,764
* Let's go back now to the six studies that Dr. Alonge presented
* 60
* 00:03:00,980 --> 00:03:03,267
* in chapter two of this module.
* 61
* 00:03:03,470 --> 00:03:06,470
* I'm going to use these six studies as examples of how
* 62
* 00:03:06,690 --> 00:03:09,578
* implementation research outcomes have been defined
* 63
* 00:03:09,762 --> 00:03:12,949
* for a specific disease in a specific context.
* 64
* 00:03:13,167 --> 00:03:16,142
* First, let's look at the example of the study entitled
* 65
* 00:03:16,355 --> 00:03:18,842
* *Ccommunity directed intervention strategies*
* *66*
* *00:03:19,025 --> 00:03:22,401*
* *for the control of onchocerciasis with ivermec*tin.
* 67
* 00:03:22,608 --> 00:03:25,770
* As we mentioned in module 2, the goal of the study
* 68
* 00:03:25,965 --> 00:03:29,390
* was to assess if a community directed intervention approach
* 69
* 00:03:29,627 --> 00:03:35,190
* improved treatment coverage in onchocerciasis affected communities.
* 70
* 00:03:35,853 --> 00:03:38,502
* The implementation research outcomes in the study
* 71
* 00:03:38,714 --> 00:03:41,127
* were coverage and cost.
* 72
* 00:03:41,945 --> 00:03:44,395
* Coverage was defined as the number of persons
* 73
* 00:03:44,612 --> 00:03:47,724
* treated with ivermectin for total population
* 74
* 00:03:47,906 --> 00:03:51,706
* within a community health worker's kinship zone in one year.
* 75
* 00:03:51,910 --> 00:03:54,710
* In other words, the total number of people treated
* 76
* 00:03:54,902 --> 00:03:57,164
* among those who should have received it.
* 77
* 00:03:57,911 --> 00:04:00,949
* Cost was defined as cost of training
* 78
* 00:04:01,118 --> 00:04:03,355
* which included allowances for the trainers,
* 79
* 00:04:03,541 --> 00:04:06,679
* transport and food for trainees and training materials
* 80
* 00:04:06,878 --> 00:04:09,890
* divided by the total number of community health workers
* 81
* 00:04:10,098 --> 00:04:13,036
* and supervisors that were trained in one year.
* 82
* 00:04:13,821 --> 00:04:17,684
* In the study by Akogun and colleagues in Nigeria,
* 83
* 00:04:17,895 --> 00:04:20,795
* among nomadic Fulani communities to manage malaria,
* 84
* 00:04:20,998 --> 00:04:23,048
* the implementation research outcomes
* 85
* 00:04:23,247 --> 00:04:25,473
* were coverage and acceptability.
* 86
* 00:04:25,695 --> 00:04:28,395
* As we mentioned in module two, the goal of this study
* 87
* 00:04:28,574 --> 00:04:31,474
* was to improve uptake of insecticide treated nets
* 88
* 00:04:31,682 --> 00:04:35,932
* and prompt treatment of malaria among children who are under 5.
* 89
* 00:04:36,146 --> 00:04:39,909
* Coverage in the study was defined as the proportion of children under 5
* 90
* 00:04:40,116 --> 00:04:43,079
* with a fever who received antimalarial treatment
* 91
* 00:04:43,301 --> 00:04:45,964
* as well as the proportion of individuals
* 92
* 00:04:46,163 --> 00:04:50,351
* under insecticide treated nets per two nomadic cycles
* 93
* 00:04:50,560 --> 00:04:52,535
* within a pre-defined nomadic group.
* 94
* 00:04:53,144 --> 00:04:57,256
* Acceptability in this study was defined as general satisfaction
* 95
* 00:04:57,469 --> 00:05:00,094
* with community directed intervention strategy
* 96
* 00:05:00,301 --> 00:05:03,001
* and the two evidence based interventions consisting
* 97
* 00:05:03,218 --> 00:05:06,293
* of treated nets and malarial treatment,
* 98
* 00:05:06,488 --> 00:05:09,576
* as well as the demand for evidence based interventions
* 99
* 00:05:09,754 --> 00:05:11,254
* in the community.
* 100
* 00:05:11,462 --> 00:05:15,199
* In the study conducted by Akweongo, Artemisinin-based Combined
* 101
* 00:05:15,411 --> 00:05:18,936
* Combination Therapy distributed to a community based distributor
* 102
* 00:05:19,158 --> 00:05:22,558
* in rural areas in Ghana, Burkina Faso
* 103
* 00:05:22,769 --> 00:05:25,568
* Ethiopia, and Malawi was evaluated.
* 104
* 00:05:25,755 --> 00:05:28,805
* Specifically, community medicine distributors (CMDs) were trained
* 105
* 00:05:28,993 --> 00:05:32,768
* to educate care givers, diagnose and treat malaria cases
* 106
* 00:05:32,969 --> 00:05:35,556
* in under fiveyear-old children.
* 107
* 00:05:35,761 --> 00:05:38,923
* The implementation outcomes of the study were fidelity,
* 108
* 00:05:39,110 --> 00:05:41,473
* coverage and feasibility.
* 109
* 00:05:41,673 --> 00:05:44,361
* Fidelity here was defined as services delivered
* 110
* 00:05:44,558 --> 00:05:48,007
* by community medicine distributors as planned, which was measured
* 111
* 00:05:48,217 --> 00:05:51,355
* as the proportion of febrile illnesses that was treated
* 112
* 00:05:51,555 --> 00:05:54,418
* with Artemisinin-based Combination Therapy,
* 113
* 00:05:54,604 --> 00:05:57,979
* promptness of treatment and correct dosage and duration.
* 114
* 00:05:58,565 --> 00:06:01,940
* Coverage was defined as the proportion of children who are under five
* 115
* 00:06:02,114 --> 00:06:04,639
* presented to the community medicine distributors
* 116
* 00:06:04,854 --> 00:06:09,017
* that were treated within 24 hours of onset in the two weeks
* 117
* 00:06:09,235 --> 00:06:12,197
* prior to the survey in a predefined area.
* 118
* 00:06:12,437 --> 00:06:16,324
* Feasibility was operationalized as a community medicine distributor’s
* 119
* 00:06:16,515 --> 00:06:20,727
* self-purported ability to recognize and promptly treat malaria cases
* 120
* 00:06:20,969 --> 00:06:24,019
* and care givers’ acceptability of these services
* 121
* 00:06:24,215 --> 00:06:26,777
* provided by the community medicine distributors.
* 122
* 00:06:27,356 --> 00:06:31,081
* In the study conducted by Okeibunor and colleagues in Nigeria,
* 123
* 00:06:31,294 --> 00:06:33,269
* Togo and Cameroon,
* 124
* 00:06:33,469 --> 00:06:37,356
* researchers studied the involvement of community directed distributors (CDDs)
* 125
* 00:06:37,566 --> 00:06:40,453
* of ivermectin for onchocerciasis control
* 126
* 00:06:40,658 --> 00:06:42,545
* and other health related activities.
* 127
* 00:06:42,763 --> 00:06:45,950
* Specifically the researchers addressed or assessed
* 128
* 00:06:46,143 --> 00:06:49,330
* if involvement in additional activities such as EPI,
* 129
* 00:06:49,524 --> 00:06:50,974
* water and sanitation
* 130
* 00:06:51,143 --> 00:06:54,555
* in community development projects detracted from their effectiveness
* 131
* 00:06:54,732 --> 00:06:56,745
* in delivering ivermectin.
* 132
* 00:06:56,961 --> 00:06:59,674
* Feasibility and coverage were measured as the two
* 133
* 00:06:59,895 --> 00:07:01,945
* primary implementation outcomes.
* 134
* 00:07:02,393 --> 00:07:06,131
* Feasibility was measured as attitude and performance of CDDs
* 135
* 00:07:06,339 --> 00:07:08,801
* involved in other public health activities.
* 136
* 00:07:09,001 --> 00:07:11,700
* In this case, performance was measured as coverage rate
* 137
* 00:07:11,886 --> 00:07:13,437
* for ivermectin treatment.
* 138
* 00:07:13,641 --> 00:07:16,728
* Coverage was measured as the proportion of the population who
* 139
* 00:07:16,944 --> 00:07:20,232
* received ivermectin treatment in the communities from which
* 140
* 00:07:20,418 --> 00:07:23,443
* the community directed distributors were selected.
* 141
* 00:07:24,267 --> 00:07:26,754
* In the study, *Early treatment of childhood fevers*
* *142*
* *00:07:26,927 --> 00:07:29,639*
* *with pre-packaged antimalarial drugs in the home*,
* 143
* 00:07:29,830 --> 00:07:33,968
* Sirima and colleagues evaluated the impact of using pre-packaged
* 144
* 00:07:34,177 --> 00:07:36,889
* antimalarial drugs by mothers at home
* 145
* 00:07:37,076 --> 00:07:40,938
* and the progression of disease in children from uncomplicated fevers
* 146
* 00:07:41,146 --> 00:07:42,921
* to severe malaria.
* 147
* 00:07:43,389 --> 00:07:46,202
* Fidelity was the only implementation outcome assessed
* 148
* 00:07:46,426 --> 00:07:49,364
* and it was operationalized specifically by looking
* 149
* 00:07:49,594 --> 00:07:52,757
* at the proportion of children, six years and under
* 150
* 00:07:52,960 --> 00:07:57,035
* who had uncomplicated malaria that was treated as planned.
* 151
* 00:07:57,235 --> 00:08:01,022
* “Treated as planned” here was defined as being promptly treated
* 152
* 00:08:01,219 --> 00:08:05,556
* with pre-packaged antimalarial drugs with correct age-specific dose
* 153
* 00:08:05,774 --> 00:08:10,111
* and duration in the four weeks prior to the assessment survey.
* 154
* 00:08:10,337 --> 00:08:14,075
* In the last example, Akogun and colleagues assessed strategies
* 155
* 00:08:14,275 --> 00:08:17,562
* for community directed treatment of onchocerciasis
* 156
* 00:08:17,777 --> 00:08:20,315
* with ivermectin in Nigeria.
* 157
* 00:08:21,170 --> 00:08:26,295
* The study evaluated fidelity, coverage, cost and feasibility
* 158
* 00:08:26,515 --> 00:08:28,990
* as its implementation research outcomes.
* 159
* 00:08:29,215 --> 00:08:32,664
* Fidelity in this study was measured as appropriate adherence
* 160
* 00:08:32,870 --> 00:08:35,220
* to the treatment regimen, correct dosage
* 161
* 00:08:35,446 --> 00:08:38,534
* and treatment frequency, and the correct management
* 162
* 00:08:38,737 --> 00:08:41,124
* of adverse reactions to medication.
* 163
* 00:08:41,736 --> 00:08:44,999
* Coverage was measured as the total number of people treated
* 164
* 00:08:45,201 --> 00:08:48,851
* out of the total population after two cycles of treatment.
* 165
* 00:08:49,050 --> 00:08:52,762
* Feasibility was operationalized as the acceptability of a range
* 166
* 00:08:52,961 --> 00:08:55,598
* of community directed ivermectin approaches
* 167
* 00:08:55,835 --> 00:08:58,835
* and the cost and coverage under different approaches.
* 168
* 00:08:59,062 --> 00:09:02,963
* And finally, cost was measured as all costs
* 169
* 00:09:03,167 --> 00:09:06,605
* that the village spent in delivering ivermectin.
* 170
* 00:09:06,785 --> 00:09:09,185
* You'll notice that although there are similarities
* 171
* 00:09:09,402 --> 00:09:12,790
* in diseases such as malaria and onchocerciasis,
* 172
* 00:09:13,028 --> 00:09:17,040
* in these examples, that both selection of implementation outcomes
* 173
* 00:09:17,233 --> 00:09:19,895
* and the way that they were operationalized
* 174
* 00:09:20,084 --> 00:09:23,534
* were tailored to the specific goals and contexts of the interventions
* 175
* 00:09:23,722 --> 00:09:25,073
* and the studies.
* 176
* 00:09:25,265 --> 00:09:28,602
* So, for example, in the study conducted by Akogun and colleagues
* 177
* 00:09:28,818 --> 00:09:33,231
* in Nigeria among nomadic Fulani communities to manage malaria,
* 178
* 00:09:33,436 --> 00:09:37,836
* the implementation research outcomes were coverage and acceptability.
* 179
* 00:09:38,401 --> 00:09:41,438
* As you may remember the goal in the study was to improve
* 180
* 00:09:41,622 --> 00:09:44,310
* the uptake of insecticide-treated nets
* 181
* 00:09:44,493 --> 00:09:47,743
* and prompt treatment of malaria among children under five.
* 182
* 00:09:48,483 --> 00:09:51,734
* In the study conducted by Akweongo, Artemisinin-based
* 183
* 00:09:51,932 --> 00:09:53,132
* Combination Therapy
* 184
* 00:09:53,309 --> 00:09:56,234
* distributed to a community medicine distributor
* 185
* 00:09:56,461 --> 00:10:01,811
* in rural areas in Ghana, Burkina Faso, Ethiopia,
* 186
* 00:10:02,024 --> 00:10:04,049
* and Malawi was evaluated.
* 187
* 00:10:04,238 --> 00:10:08,174
* The implementation outcomes of this study were fidelity,
* 188
* 00:10:08,380 --> 00:10:10,242
* coverage and feasibility.
* 189
* 00:10:10,439 --> 00:10:12,151
* So you can see there were differences
* 190
* 00:10:12,378 --> 00:10:15,991
* in implementation outcomes selected based on the goals
* 191
* 00:10:16,203 --> 00:10:18,177
* of the intervention, and although
* 192
* 00:10:18,390 --> 00:10:20,654
* both studies looked at coverage as an outcome,
* 193
* 00:10:20,845 --> 00:10:23,833
* the operationalization was a little different.
* 194
* 00:10:24,027 --> 00:10:27,778
* Coverage in the study by Akogun and colleagues was defined
* 195
* 00:10:27,949 --> 00:10:31,425
* as the proportion of children under five with a fever
* 196
* 00:10:31,643 --> 00:10:34,855
* who received antimalarial treatment
* 197
* 00:10:35,049 --> 00:10:37,563
* as well as the proportion of individuals
* 198
* 00:10:37,737 --> 00:10:42,000
* under insecticide treated nets per two nomadic movement cycles
* 199
* 00:10:42,204 --> 00:10:44,504
* within a predefined nomadic group.
* 200
* 00:10:44,681 --> 00:10:48,105
* Coverage in the Akweongo study was defined as the proportion
* 201
* 00:10:48,313 --> 00:10:50,376
* of children who are under five who presented
* 202
* 00:10:50,572 --> 00:10:53,848
* to the community medicine distributors
* 203
* 00:10:54,046 --> 00:10:57,771
* that were treated within 24 hours of onset in the two weeks prior
* 204
* 00:10:57,980 --> 00:11:00,380
* to the survey in a predefined area.
* 205
* 00:11:00,556 --> 00:11:02,469
* So you see that there are similarities
* 206
* 00:11:02,667 --> 00:11:04,879
* in the operational definitions of coverage,
* 207
* 00:11:05,095 --> 00:11:09,009
* so both consider appropriate malarial treatment
* 208
* 00:11:09,203 --> 00:11:11,716
* for children under five, but one denominator
* 209
* 00:11:11,911 --> 00:11:15,362
* is all children with the fever whereas in other denominator,
* 210
* 00:11:15,574 --> 00:11:19,449
* it's just among those who presented to a community medicine distributor.
* 211
* 00:11:19,646 --> 00:11:22,734
* And one also considers insecticide-treated nets.
* 212
* 00:11:22,952 --> 00:11:26,051
* These are due to the differences in the evidence-based interventions
* 213
* 00:11:26,244 --> 00:11:28,795
* being tested or being scaled up.
* 214
* 00:11:28,981 --> 00:11:30,944
* In addition, the time frames are different.
* 215
* 00:11:31,136 --> 00:11:34,037
* One considers it per nomadic movement cycles
* 216
* 00:11:34,241 --> 00:11:37,416
* while the other considers it within two weeks prior to the survey,
* 217
* 00:11:37,611 --> 00:11:40,261
* reflecting the different populations under study.
* 218
* 00:11:40,475 --> 00:11:42,900
* That is why we say, implementation research outcomes
* 219
* 00:11:43,087 --> 00:11:44,901
* are heuristically defined.
* 220
* 00:11:45,108 --> 00:11:48,419
* Now that we've talked about how different implementation outcomes
* 221
* 00:11:48,611 --> 00:11:51,649
* can be operationalized in the field, we're going to talk about
* 222
* 00:11:51,845 --> 00:11:55,870
* how data on implementation research outcomes are collected.
* 223
* 00:11:56,817 --> 00:12:00,505
* Implementation research outcomes can be collected at different levels
* 224
* 00:12:00,708 --> 00:12:03,357
* and through different data collection approaches.
* 225
* 00:12:03,542 --> 00:12:06,180
* I want to emphasize that implementation studies
* 226
* 00:12:06,379 --> 00:12:11,430
* typically use mixed quantitative-qualitative designs, identifying factors
* 227
* 00:12:11,646 --> 00:12:14,433
* that impact uptake across multiple levels
* 228
* 00:12:14,653 --> 00:12:18,441
* including patient, provider, clinic, facility,
* 229
* 00:12:18,671 --> 00:12:21,321
* organization and often the broader community
* 230
* 00:12:21,557 --> 00:12:23,181
* and policy environments.
* 231
* 00:12:23,355 --> 00:12:26,418
* Accordingly, implementation science requires the involvement
* 232
* 00:12:26,623 --> 00:12:30,260
* of trans-disciplinary research teams as we had mentioned in module 1
* 233
* 00:12:30,471 --> 00:12:31,845
* of this course.
* 234
* 00:12:32,042 --> 00:12:36,055
* Common quanitative measures include structured surveys
* 235
* 00:12:36,277 --> 00:12:38,739
* that assess for example organizational context,
* 236
* 00:12:38,936 --> 00:12:42,736
* provider attitudes and behaviors, patient receptivity to change
* 237
* 00:12:42,955 --> 00:12:46,044
* or household access to provider services.
* 238
* 00:12:46,248 --> 00:12:49,197
* Administrative data are often utilized either
* 239
* 00:12:49,412 --> 00:12:52,638
* in focal target populations or at the broader system levels
* 240
* 00:12:52,840 --> 00:12:54,714
* to characterize for example, baseline
* 241
* 00:12:54,878 --> 00:12:59,641
* and change in rates of utilization of particular practices.
* 242
* 00:12:59,824 --> 00:13:03,425
* Common qualitative data collection methods include semi-structured
* 243
* 00:13:03,627 --> 00:13:07,914
* interviews with patients, providers or other stakeholders,
* 244
* 00:13:08,111 --> 00:13:09,536
* focus groups,
* 245
* 00:13:09,734 --> 00:13:14,546
* direct observation of clinical processes and document review.
* 246
* 00:13:14,800 --> 00:13:17,813
* One final note, implementation research outcomes
* 247
* 00:13:18,009 --> 00:13:20,021
* are by nature, latent variables.
* 248
* 00:13:20,225 --> 00:13:24,001
* That is to say that these variables are often not directly observable
* 249
* 00:13:24,204 --> 00:13:26,829
* but rather, are rather inferred from other variables
* 250
* 00:13:27,052 --> 00:13:30,215
* that are observed, and may require scale development.
* 251
* 00:13:30,417 --> 00:13:33,267
* For example you can not directly observe acceptability
* 252
* 00:13:33,473 --> 00:13:36,223
* but rather can combine a series of questions that together
* 253
* 00:13:36,446 --> 00:13:38,384
* infer acceptability.
* 254
* 00:13:39,213 --> 00:13:42,801
* Let's look now at each of the nine implementation research outcomes
* 255
* 00:13:43,018 --> 00:13:44,982
* that we have presented in this chapter.
* 256
* 00:13:45,195 --> 00:13:49,321
* Acceptability can be measured at the individual or community level
* 257
* 00:13:49,557 --> 00:13:52,882
* through quantitative surveys that assess satisfaction.
* 258
* 00:13:53,103 --> 00:13:56,090
* It can also be measured through qualitative interviews
* 259
* 00:13:56,293 --> 00:13:59,093
* including in-depth interviews or focus groups that explore
* 260
* 00:13:59,300 --> 00:14:02,600
* participants’ satisfaction with a particular intervention.
* 261
* 00:14:03,224 --> 00:14:06,324
* And finally, acceptability can be measured through
* 262
* 00:14:06,525 --> 00:14:08,674
* administrative data that collects data
* 263
* 00:14:08,853 --> 00:14:11,078
* on service utilization overtime.
* 264
* 00:14:11,855 --> 00:14:15,092
* Adoption can be measured at the individual, community
* 265
* 00:14:15,298 --> 00:14:17,661
* or organization level since the intention
* 266
* 00:14:17,846 --> 00:14:22,059
* to try a new intervention can be an individual, community,
* 267
* 00:14:22,289 --> 00:14:25,152
* and/or organizational level decision.
* 268
* 00:14:25,362 --> 00:14:28,737
* For example, the decision to integrate mental health services
* 269
* 00:14:28,933 --> 00:14:31,371
* at a primary healthcare system can be made
* 270
* 00:14:31,559 --> 00:14:34,647
* at the organizational level by clinic leadership
* 271
* 00:14:34,848 --> 00:14:38,011
* but the decision to utilize these services may be made
* 272
* 00:14:38,219 --> 00:14:40,994
* at an individual and/or community level.
* 273
* 00:14:41,872 --> 00:14:44,722
* Adoption can be seen through observation
* 274
* 00:14:44,919 --> 00:14:48,094
* through a survey, or through other qualitative data
* 275
* 00:14:48,294 --> 00:14:51,331
* such as in-depth interviews or focus groups
* 276
* 00:14:52,095 --> 00:14:55,258
* and through administrative data, for example, you can examine
* 277
* 00:14:55,494 --> 00:14:58,270
* clinical records to check if primary care physicians
* 278
* 00:14:58,464 --> 00:15:01,276
* are appropriately screening for and referring
* 279
* 00:15:01,444 --> 00:15:03,720
* to mental health services.
* 280
* 00:15:04,682 --> 00:15:08,432
* Appropriateness or fit of the evidence based programme
* 281
* 00:15:08,659 --> 00:15:11,659
* or implementation strategy can also be measured
* 282
* 00:15:11,871 --> 00:15:15,608
* through individual, community or organizational level
* 283
* 00:15:16,304 --> 00:15:20,030
* through either surveys or qualitative methods.
* 284
* 00:15:20,762 --> 00:15:24,488
* And feasibility, the extent to which an intervention can be carried out
* 285
* 00:15:24,711 --> 00:15:27,147
* in a specific setting or organization
* 286
* 00:15:27,347 --> 00:15:29,185
* can be measured at the individual,
* 287
* 00:15:29,386 --> 00:15:32,648
* community or organizational levels through surveys,
* 288
* 00:15:32,876 --> 00:15:35,775
* administrative data and qualitative methods.
* 289
* 00:15:35,978 --> 00:15:39,467
* Continuing on to the last four implementation outcomes;
* 290
* 00:15:39,658 --> 00:15:42,708
* fidelity, the degree to which an intervention was implemented
* 291
* 00:15:42,909 --> 00:15:46,234
* as planned, can be measured at the individual level
* 292
* 00:15:46,445 --> 00:15:50,608
* through survey, observation, checklists,
* 293
* 00:15:50,816 --> 00:15:53,504
* self-report and administrative data.
* 294
* 00:15:54,005 --> 00:15:58,030
* For example, if assessing the fidelity of a counseling session
* 295
* 00:15:58,249 --> 00:15:59,622
* as an intervention,
* 296
* 00:15:59,811 --> 00:16:02,460
* an independent observer could sit in on the session
* 297
* 00:16:02,674 --> 00:16:05,012
* and complete a checklist to ensure that the session
* 298
* 00:16:05,229 --> 00:16:07,242
* was delivered as planned.
* 299
* 00:16:08,352 --> 00:16:11,039
* Implementation cost can be measured
* 300
* 00:16:11,272 --> 00:16:13,422
* by the individual or organization level
* 301
* 00:16:13,609 --> 00:16:16,283
* by assessing cost data that's already being collected
* 302
* 00:16:16,453 --> 00:16:18,653
* by the clinic or organization.
* 303
* 00:16:19,337 --> 00:16:23,038
* Penetration, the extent to which a population eligible
* 304
* 00:16:23,243 --> 00:16:26,719
* to receive an intervention, actually receives that intervention
* 305
* 00:16:26,918 --> 00:16:30,556
* can be measured at the individual, community or organization level
* 306
* 00:16:30,743 --> 00:16:35,255
* also, through surveys, checklists and, or an audit
* 307
* 00:16:35,438 --> 00:16:37,375
* by an independent observer.
* 308
* 00:16:38,056 --> 00:16:41,294
* And finally, sustainability, which is defined as the extent
* 309
* 00:16:41,537 --> 00:16:43,761
* to which an intervention is maintained
* 310
* 00:16:43,968 --> 00:16:45,580
* in a given setting or context
* 311
* 00:16:45,767 --> 00:16:49,417
* can be measured at the individual, community or organizational level
* 312
* 00:16:49,620 --> 00:16:53,534
* using surveys, administrative data and qualitative methods
* 313
* 00:16:53,722 --> 00:16:54,972
* including an audit.
* 314
* 00:16:55,818 --> 00:16:58,605
* Let's now turn back to our six examples of studies
* 315
* 00:16:58,795 --> 00:17:01,259
* of infectious diseases of poverty in the field.
* 316
* 00:17:01,459 --> 00:17:04,785
* We can see how implementation research outcomes are measured,
* 317
* 00:17:05,003 --> 00:17:08,904
* both in terms of the multiple levels from which we draw our data from
* 318
* 00:17:09,154 --> 00:17:12,367
* and the different methods used to collect these data.
* 319
* 00:17:13,453 --> 00:17:15,827
* In Uganda and Cameroon, as you may remember,
* 320
* 00:17:16,036 --> 00:17:19,925
* Katabarwa and colleagues defined coverage as the total number
* 321
* 00:17:20,136 --> 00:17:22,786
* of people treated with ivermectin
* 322
* 00:17:22,991 --> 00:17:25,966
* among those who should have received it.
* 323
* 00:17:26,180 --> 00:17:29,192
* They used both individual and community level data
* 324
* 00:17:29,389 --> 00:17:31,813
* through community household treatment records
* 325
* 00:17:31,999 --> 00:17:34,687
* that were completed by the community health workers.
* 326
* 00:17:34,879 --> 00:17:37,943
* In the study, data on cost, which was defined
* 327
* 00:17:38,137 --> 00:17:41,287
* as the cost of training including allowances for the trainers,
* 328
* 00:17:41,487 --> 00:17:45,024
* transport and food for the trainees and the training materials
* 329
* 00:17:45,234 --> 00:17:47,447
* was collected at the organizational level
* 330
* 00:17:47,670 --> 00:17:51,121
* through the administrative system that already tracked these costs.
* 331
* 00:17:52,019 --> 00:17:54,994
* In Nigeria, among nomadic Fulani communities
* 332
* 00:17:55,177 --> 00:17:58,291
* who are managing malaria, coverage defined
* 333
* 00:17:58,519 --> 00:18:01,894
* as you may remember, as the proportion of children under five
* 334
* 00:18:02,115 --> 00:18:04,539
* who received antimalarial treatment
* 335
* 00:18:04,715 --> 00:18:08,091
* and the proportion of individuals under insecticide treated nets
* 336
* 00:18:08,293 --> 00:18:11,705
* which measured at both the household and community level
* 337
* 00:18:11,931 --> 00:18:13,607
* through household surveys.
* 338
* 00:18:13,834 --> 00:18:16,583
* Acceptability which was defined in the study
* 339
* 00:18:16,767 --> 00:18:19,580
* as general satisfaction with the community directed
* 340
* 00:18:19,797 --> 00:18:23,971
* intervention strategy and the two evidence based interventions
* 341
* 00:18:24,166 --> 00:18:27,591
* consisting of treated nets and malaria treatment
* 342
* 00:18:27,794 --> 00:18:30,819
* as well as the demand for the evidence based interventions
* 343
* 00:18:31,050 --> 00:18:32,100
* in the community,
* 344
* 00:18:32,329 --> 00:18:35,067
* was assessed through qualitative in-depth interviews
* 345
* 00:18:35,268 --> 00:18:37,830
* and focus groups at the individual level
* 346
* 00:18:38,035 --> 00:18:41,386
* and feedback meetings at the community level.
* 347
* 00:18:41,829 --> 00:18:45,953
* These two studies are good examples of how one implementation outcome
* 348
* 00:18:46,136 --> 00:18:48,186
* can be measured at multiple levels.
* 349
* 00:18:48,422 --> 00:18:51,985
* You can see in the study by Akogun how if we want to get
* 350
* 00:18:52,217 --> 00:18:54,542
* community level perceptions of acceptability,
* 351
* 00:18:54,744 --> 00:18:58,620
* a different data collection approach in the form of community meetings
* 352
* 00:18:58,833 --> 00:19:00,995
* is used compared to the individual level
* 353
* 00:19:01,194 --> 00:19:04,182
* acceptability data collection methods.
* 354
* 00:19:04,617 --> 00:19:08,067
* In our third example, [in] the study by Akweongo and colleagues
* 355
* 00:19:08,274 --> 00:19:11,062
* as we remember, aimed to assess the impact
* 356
* 00:19:11,269 --> 00:19:15,832
* of community medicine distributors trained to diagnose
* 357
* 00:19:16,028 --> 00:19:19,779
* and treat malaria cases in children under five years of age
* 358
* 00:19:19,967 --> 00:19:21,479
* using ACT.
* 359
* 00:19:21,667 --> 00:19:24,505
* Fidelity was defined as treatment as planned
* 360
* 00:19:24,734 --> 00:19:27,059
* delivered by community medicine distributors,[and]
* 361
* 00:19:27,240 --> 00:19:29,440
* was measured both at the individual
* 362
* 00:19:29,658 --> 00:19:32,934
* and organization levels using the records completed
* 363
* 00:19:33,144 --> 00:19:35,506
* by the community medicine distributors.
* 364
* 00:19:35,710 --> 00:19:38,585
* Coverage defined in the study as a proportion of children
* 365
* 00:19:38,803 --> 00:19:42,278
* under five who presented to community medicine distributors
* 366
* 00:19:42,520 --> 00:19:45,470
* that were treated within 24 hours of onset,
* 367
* 00:19:45,701 --> 00:19:49,114
* was measured at the household and the community level
* 368
* 00:19:49,320 --> 00:19:51,695
* through a household survey
* 369
* 00:19:51,899 --> 00:19:53,525
* completed by clients.
* 370
* 00:19:53,726 --> 00:19:57,301
* Feasibility defined here as the CMDs ability
* 371
* 00:19:57,524 --> 00:20:01,062
* to recognize and promptly treat malaria cases
* 372
* 00:20:01,284 --> 00:20:04,120
* and the care giver's satisfaction of these services
* 373
* 00:20:04,347 --> 00:20:07,085
* was collected at the individual and community level
* 374
* 00:20:07,282 --> 00:20:10,194
* using qualitative interviews with care givers.
* 375
* 00:20:10,768 --> 00:20:13,830
* In our fourth example, Okeibunor and colleagues
* 376
* 00:20:14,047 --> 00:20:17,836
* assessed whether community directed distributors' additional activities
* 377
* 00:20:18,017 --> 00:20:22,405
* had a negative or positive effect on the distribution of ivermectin
* 378
* 00:20:22,589 --> 00:20:24,589
* to treat onchocerciasis.
* 379
* 00:20:24,794 --> 00:20:29,432
* Feasibility operationalized here as attitude and performance of CDDs
* 380
* 00:20:29,624 --> 00:20:31,749
* involved in other public health activities
* 381
* 00:20:31,972 --> 00:20:34,947
* was measured at the individual or CDD level
* 382
* 00:20:35,159 --> 00:20:36,859
* through health worker survey.
* 383
* 00:20:37,066 --> 00:20:40,517
* At the household level, through household surveys,
* 384
* 00:20:40,717 --> 00:20:43,653
* and at the community level through focused group discussions
* 385
* 00:20:43,852 --> 00:20:46,378
* and in-depth interviews with care givers.
* 386
* 00:20:47,253 --> 00:20:50,341
* Coverage defined as the proportion of the population
* 387
* 00:20:50,561 --> 00:20:54,211
* who received Ivermectin treatment in the communities from which
* 388
* 00:20:54,438 --> 00:20:58,863
* the community directed distributors were selected was measured
* 389
* 00:20:59,087 --> 00:21:02,011
* at the household level through household surveys.
* 390
* 00:21:02,807 --> 00:21:05,443
* Moving on to our last two examples.
* 391
* 00:21:05,645 --> 00:21:09,283
* As you recall, Sirima and colleagues evaluated the impact
* 392
* 00:21:09,482 --> 00:21:11,857
* using pre-packaged antimalarial drugs
* 393
* 00:21:12,057 --> 00:21:15,557
* by mothers at home, on the progression of diseases in children
* 394
* 00:21:15,762 --> 00:21:18,949
* from uncomplicated fever to severe malaria.
* 395
* 00:21:19,132 --> 00:21:22,044
* Fidelity was the only implementation outcome assessed
* 396
* 00:21:22,266 --> 00:21:23,842
* and it was operationalized
* 397
* 00:21:24,035 --> 00:21:26,210
* by looking at the proportion of children
* 398
* 00:21:26,444 --> 00:21:29,317
* six years and under who had uncomplicated malaria
* 399
* 00:21:29,528 --> 00:21:31,279
* that was treated as planned.
* 400
* 00:21:31,463 --> 00:21:33,975
* Fidelity was measured at the household level
* 401
* 00:21:34,165 --> 00:21:35,966
* through a household survey.
* 402
* 00:21:36,146 --> 00:21:37,584
* And finally,
* 403
* 00:21:37,769 --> 00:21:40,680
* Akogun and colleagues assessed a range of strategies
* 404
* 00:21:40,885 --> 00:21:43,848
* for community directed treatment of onchocerciasis
* 405
* 00:21:44,043 --> 00:21:46,119
* with ivermectin in Nigeria.
* 406
* 00:21:46,695 --> 00:21:49,795
* Fidelity measured here as the appropriate adherence
* 407
* 00:21:50,010 --> 00:21:53,373
* to the treatment regimen, correct dosage and frequency
* 408
* 00:21:53,577 --> 00:21:57,528
* and the correct management of adverse reactions to medication
* 409
* 00:21:57,711 --> 00:22:00,398
* was measured at the individual and household levels
* 410
* 00:22:00,600 --> 00:22:02,239
* through a household survey.
* 411
* 00:22:02,949 --> 00:22:05,799
* Coverage defined in the study
* 412
* 00:22:06,022 --> 00:22:10,410
* as the total number of people treated out of the total population
* 413
* 00:22:10,585 --> 00:22:13,135
* after two cycles of treatment was also measured at
* 414
* 00:22:13,338 --> 00:22:16,737
* the individual and household level using a household survey.
* 415
* 00:22:17,364 --> 00:22:21,503
* Feasibility operationally defined in this study as acceptability
* 416
* 00:22:21,710 --> 00:22:25,372
* of a range of community directed ivermectin approaches
* 417
* 00:22:25,573 --> 00:22:28,273
* and the cost in coverage under different approaches
* 418
* 00:22:28,497 --> 00:22:31,523
* was assessed at both the individual and household levels
* 419
* 00:22:31,710 --> 00:22:34,647
* through the household survey and at the community level
* 420
* 00:22:34,828 --> 00:22:39,067
* using direct observations and in depth interviews with clients.
* 421
* 00:22:39,629 --> 00:22:42,554
* And finally, cost, operationally defined
* 422
* 00:22:42,762 --> 00:22:44,950
* as all costs that the villages spend
* 423
* 00:22:45,193 --> 00:22:49,081
* in delivering ivermectin was obtained at the community level
* 424
* 00:22:49,282 --> 00:22:51,669
* through a structured form that cataloged
* 425
* 00:22:51,876 --> 00:22:53,776
* all inputs from the village.
* 426
* 00:22:54,002 --> 00:22:56,815
* We can see from these examples that the levels from which
* 427
* 00:22:57,000 --> 00:23:00,112
* we obtain data, and the methods used for data collection
* 428
* 00:23:00,323 --> 00:23:04,922
* stands from a combination of how we operationalized
* 429
* 00:23:05,121 --> 00:23:08,495
* the implementation outcomes and what is realistically feasible
* 430
* 00:23:08,735 --> 00:23:11,947
* given time and resource constraints.
* 431
* 00:23:12,141 --> 00:23:15,542
* So, we've learned in chapter three how we operationalize
* 432
* 00:23:15,728 --> 00:23:18,728
* implementation research outcomes and how we collect data
* 433
* 00:23:18,903 --> 00:23:22,252
* on these outcomes, both in terms of sources and methods
* 434
* 00:23:22,461 --> 00:23:26,299
* using our six examples drawn from our required readings.
* 435
* 00:23:26,515 --> 00:23:29,079
* Let's now revisit the statements that we used to gauge
* 436
* 00:23:29,313 --> 00:23:31,352
* our knowledge about implementation outcomes
* 437
* 00:23:31,571 --> 00:23:33,609
* at the beginning of this chapter.
* 438
* 00:23:34,553 --> 00:23:37,640
* The first statement was: data for measuring
* 439
* 00:23:37,819 --> 00:23:40,593
* implementation research outcomes are often collected
* 440
* 00:23:40,802 --> 00:23:43,565
* across multiple socio-ecological levels.
* 441
* 00:23:44,395 --> 00:23:46,946
* The correct response here is true.
* 442
* 00:23:47,128 --> 00:23:49,390
* We know the data come from multiple levels
* 443
* 00:23:49,621 --> 00:23:53,107
* including patients, provider, clinic, facility
* 444
* 00:23:53,301 --> 00:23:56,065
* and organizational levels
* 445
* 00:23:56,705 --> 00:23:59,980
* to give us a fuller picture of the implementation effectiveness
* 446
* 00:24:00,215 --> 00:24:02,102
* for multiple perspectives.
* 447
* 00:24:03,886 --> 00:24:05,624
* The second statement:
* 448
* 00:24:05,844 --> 00:24:08,682
* implementation research outcome data can be collected using
* 449
* 00:24:08,877 --> 00:24:11,690
* both quantitative and qualitative methods.
* 450
* 00:24:11,864 --> 00:24:14,738
* The correct response is true.
* 451
* 00:24:14,938 --> 00:24:18,963
* We know that in order to glean a fuller picture of barriers
* 452
* 00:24:19,156 --> 00:24:22,043
* to implementation and implementation effectiveness,
* 453
* 00:24:22,250 --> 00:24:24,676
* it's necessary to use both quantitative
* 454
* 00:24:24,871 --> 00:24:26,496
* and qualitative methods
* 455
* 00:24:26,685 --> 00:24:30,373
* to understand the extent of barriers and effectiveness
* 456
* 00:24:30,556 --> 00:24:33,307
* and the hows and the whys behind those barriers
* 457
* 00:24:33,516 --> 00:24:37,042
* and to triangulate information from both sources
* 458
* 00:24:37,260 --> 00:24:39,072
* and all methods.
* 459
* 00:24:40,921 --> 00:24:45,134
* Three, administrative data are useful sources of information
* 460
* 00:24:45,339 --> 00:24:47,964
* for measuring implementation research outcomes
* 461
* 00:24:48,160 --> 00:24:50,223
* such as cost and fidelity.
* 462
* 00:24:51,749 --> 00:24:54,686
* The correct response here is true.
* 463
* 00:24:54,899 --> 00:24:57,286
* To save resources and to avoid duplication,
* 464
* 00:24:57,492 --> 00:25:01,330
* we can use already existing data that are being collected by clinics,
* 465
* 00:25:01,527 --> 00:25:03,690
* programmes and organizations to assess
* 466
* 00:25:03,893 --> 00:25:07,893
* implementation outcomes such as cost and fidelity.
* 467
* 00:25:09,808 --> 00:25:10,945
* Four.
* 468
* 00:25:11,978 --> 00:25:14,940
* Measurement of implementation research outcomes often
* 469
* 00:25:15,165 --> 00:25:16,829
* involves scale development.
* 470
* 00:25:17,597 --> 00:25:20,885
* The correct response to this statement is true.
* 471
* 00:25:21,053 --> 00:25:23,491
* We know that often implementation outcomes
* 472
* 00:25:23,707 --> 00:25:25,532
* are by nature, latent variables.
* 473
* 00:25:25,705 --> 00:25:29,356
* That is to say, that these variables are not directly observable,
* 474
* 00:25:29,543 --> 00:25:33,056
* but can rather be inferred from other variables that are observed.
* 475
* 00:25:33,277 --> 00:25:35,590
* This may require scale development.
* 476
* 00:25:35,785 --> 00:25:39,697
* For example, you cannot directly observe acceptability
* 477
* 00:25:39,916 --> 00:25:42,928
* but rather can combine a series of questions that together
* 478
* 00:25:43,116 --> 00:25:45,092
* infer acceptability.
* 479
* 00:25:45,271 --> 00:25:47,346
* This concludes chapter three and our discussion
* 480
* 00:25:47,562 --> 00:25:50,250
* on how to measure implementation research outcomes.

<https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/9e3d6e55d8524b3092007b575127ff10/?child=first>

**Discussion**

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**Discussion**

What factors should be considered in choosing and measuring implementation research outcomes in a given context?

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## Resources and References

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### ****Resources****

Presentation available for download [**here**](https://www.tdrmooc.org/assets/courseware/v1/254a596dd5b04117b3cb67251d3f31d2/asset-v1:TDR+IR+2016+type@asset+block/Module4_Chapter_3.pdf).

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**Conclusion**

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**Conclusion**

Module 4 final exercise

0

00:00:04,675 --> 00:00:06,938

So why don't we go ahead and end with an exercise

1

00:00:07,140 --> 00:00:10,529

that we developed to give you an opportunity to apply

2

00:00:10,721 --> 00:00:13,958

some of these concepts to a real world problem.

3

00:00:14,164 --> 00:00:17,512

So online you'll see that there are two papers that you can choose from.

4

00:00:17,695 --> 00:00:19,359

Go ahead and pick one of the papers

5

00:00:19,568 --> 00:00:22,530

that you find the most interesting, read it and then go ahead

6

00:00:22,753 --> 00:00:26,940

and answer some of these questions or tasks that we played out.

7

00:00:27,122 --> 00:00:31,134

The first is for you to identify the implementation problem

8

00:00:31,345 --> 00:00:34,032

that's presented in the paper, and if applicable,

9

00:00:34,224 --> 00:00:37,875

an implementation strategy that was also presented in that paper.

10

00:00:38,067 --> 00:00:41,355

And next, we actually want you to identify the implementation

11

00:00:41,551 --> 00:00:44,414

research outcomes that was used in testing the strategy

12

00:00:44,605 --> 00:00:47,818

or the set of implementation activities that were put in place

13

00:00:48,021 --> 00:00:50,658

in the paper, and I want you to go on and describe

14

00:00:50,856 --> 00:00:53,868

how the implementation research outcome was operationalized.

15

00:00:54,034 --> 00:00:56,635

That is to say, how was it defined in the paper,

16

00:00:56,816 --> 00:01:00,179

and how was the measure taken in terms of the data collection

17

00:01:00,387 --> 00:01:02,049

and approach and the methodology.

18

00:01:02,254 --> 00:01:04,467

As you know, there are many different ways

19

00:01:04,671 --> 00:01:06,696

that you can collect data for the same set

20

00:01:06,912 --> 00:01:08,800

of implementation research outcomes.

21

00:01:08,997 --> 00:01:11,872

So, lots of times this decision is based in part by looking

22

00:01:12,065 --> 00:01:14,540

at the pros and cons of the data collection methods

23

00:01:14,733 --> 00:01:17,671

or the biases that are inherent in that data collection method,

24

00:01:17,892 --> 00:01:21,467

but it also takes into account the resource and time constraints

25

00:01:21,661 --> 00:01:24,299

of the organization that's collecting data

26

00:01:24,509 --> 00:01:27,397

So, what we'd like you to do is suggest alternative ways

27

00:01:27,600 --> 00:01:31,200

of collecting data for the same set of implementation research outcomes

28

00:01:31,360 --> 00:01:32,811

that's presented in the paper.

29

00:01:33,002 --> 00:01:36,390

And for all this write-up, we actually want you to limit

30

00:01:36,586 --> 00:01:38,236

your write-up to 1500 words.

31

00:01:38,406 --> 00:01:41,606

We don't want you to exceed 2 pages and if you’ll be so kind

32

00:01:41,823 --> 00:01:44,111

to upload it into the dedicated folder

33

00:01:44,315 --> 00:01:46,377

that has been provided for the exercise.

34

00:01:46,578 --> 00:01:49,278

So thank you again for participating in module 4,

35

00:01:49,470 --> 00:01:52,021

of the implementation research course.

36

00:01:52,244 --> 00:01:54,556

We hope you have enjoyed listening to us.

<https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/0920aed1fca14b6bb5a8b7841328c064/?child=first>

[Course](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/)  [Module 4: Implementation Research Outcomes](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@chapter+block@ddde7302c3d443559d695bb1122135e5)  [Conclusion](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@sequential+block@0920aed1fca14b6bb5a8b7841328c064)  What you have learned

 Previous

1. video Conclusion
2. other What you have learned

Next

## What you have learned

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### ****What you have learned****

* An effective health intervention may not lead to the desired results due to implementation failure.
* Implementation research outcomes (IRO) are useful for measuring success or failure of an implementation process.
* Examples of IRO include acceptability, fidelity, feasibility and coverage.
* Various IRO are useful for IR focused on different temporal stages of implementation and context.
* IRO are heuristically defined. The operational definitions of IRO are mostly context and programme-specific – they require knowledge of the programme implementation activities to operationalize.
* Data sources for IRO include programme administrative data, quantitative surveys and qualitative data.

 PreviousNext

<https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/courseware/ddde7302c3d443559d695bb1122135e5/87060161cb2b48a6abe186ab0911c2d2/?child=first>

[Course](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/)  [Module 4: Implementation Research Outcomes](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@chapter+block@ddde7302c3d443559d695bb1122135e5)  [Assessment](https://www.tdrmooc.org/courses/course-v1:TDR+IR+2016/course/#block-v1:TDR+IR+2016+type@sequential+block@87060161cb2b48a6abe186ab0911c2d2)  Assessment

 Previous

1. problem Assessment

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## Assessment

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**Learning goals**:

* Identify different types of implementation research outcomes
* Specify how IROs are measured
* Use these concepts in real-life examples related to diseases of poverty

**Open and read the following article**:

[**Community-directed interventions for priority health problems in Africa: results of a multicountry study**](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2897985/pdf/BLT.09.069203.pdf). *Bulletin of the World Health Organization*, 2010, 88(7):509-518.

Please complete a write-up summarizing your responses to questions described under the exercise. The write-up should not exceed 2 pages, 1500 word limit.

Maximum grade: 100 points.

### PEER ASSESSMENT

This assignment has several steps. In the first step, you'll provide a response to the prompt. The other steps appear below the **Your Response** field.

#### Your Responsedue Dec 31, 2028 20:00 AST (in 11 years, 4 months)IN PROGRESS

Enter your response to the prompt. You can save your progress and return to complete your response at any time before the due date (Sunday, Dec 31, 2028 20:00 AST). **After you submit your response, you cannot edit it**.

Top of Form

##### The prompt for this section

Part 1. Identify an implementation issue and implementation strategy (if applicable) in the case example.

##### Your response (required)



##### The prompt for this section

Part 2. Identify the IROs used in the paper and show how these were linked to the health outcomes.

##### Your response (required)



##### The prompt for this section

Part 3. Describe how the IROs were measured (including the operation definition, level of measurement and data collection approach).

##### Your response (required)



##### The prompt for this section

Part 4. Suggest an alternative approach for collecting data on the same set of IROs.

##### Your response (required)



* + - Save your progress

YOUR SUBMISSION STATUS:**THIS RESPONSE HAS NOT BEEN SAVED.**

You may continue to work on your response until you submit it.

Bottom of Form

* 1. Submit your response and move to the next step

Assess Peers**due Dec 31, 2028 20:00 AST (in 11 years, 4 months)**