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Applying Behavior Change to One Health

Facilitator Guide 2019



This is a product of the One Health Central and Eastern Africa (OHCEA) for health professionals' training with support from the United States Agency for International Development (USAID).

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OHCEA
8 Countries
16 Universities
24 Institutions



Contents

Preface	vi
Acknowledgements	vii
General Introduction	viii
Training the Current and Future Public Health Workforce Using a One Health Approach	viii
Module Developers and Reviewers	x
Module Editors.....	xii
Module Overview	xiii
Target Audience	xiii
Goals of the Training	xiv
Module Learning Objectives.....	xiv
How to Use the Guide	xiv
Course Structure	xv
SESSION 1:	1
Behavior Change: Concepts and Theories	1
Session Overview	1
Learning Outcomes	1
Participant Registration.....	1
Facilitator’s Welcome Remarks.....	1
Participant Introductions	1
Set up:	2
Goals of the Course	2
Introduction to OHCEA.....	3
Guest Speaker - Opening Workshop	3
Pre-test.....	3
Discovery Activity: What is One Health?	3
What is Behavior?	5
Discovery Activity: What is Behavior?	5
Definition of Behavior	5
Discovery Activity: What is Behavior Change? What Role Does Gender Play in Behavior Change?	7
Group Activity: Mime to Depict Behavior Change	8
Facilitator’s Notes for Session 1	12
What is OHCEA?	12
Goals of the Course	13
What is One Health?	13
Introduction to One Health.....	13
One Health Developments	13
What is Behavior?	14
What are the Factors that Influence Behavior?	14
Discovery Activity: What is Behavior Change? What Role Does Gender Play in the Following Scenarios?	16
Case Study 1: Survival in War-torn Areas in Southern Sudan: A Case of Behavioral Change to Cope with the Situation.....	17

References.....	19
SESSION 2: Stages of Behavioral Change (Management) Model.....	20
Session Overview	20
Learning Outcomes	20
Detailed Facilitator Notes.....	21
Stages of Behavior Change.....	21
Group Activity: Literature Review on Stages of Behavioral Change.....	22
Case Study: Stages of Behavior Change Management.....	24
Questions and Answers.....	25
Group Activity: Factors that Influence Behavior Change	26
Reference	27
Group Activity: Stages of Behavior Change Management	28
Concluding Comments	28
End of Day Evaluation	28
Facilitator Notes for Session 2	30
Stages of Behavior Change.....	30
Pre-contemplation (Not ready).....	32
Contemplation (Getting ready)	32
Preparation (Ready)	33
Stage of Action	33
Termination.....	33
Decisional Balance.....	34
Self-Efficacy	34
Processes of Change.....	34
Cognitive and Affective Experiential Processes Consciousness Raising (Get the facts):	35
Behavioral Processes.....	36
Limitations of Trans-Theoretical Model	37
Further Reading.....	37
SESSION 3:.....	39
Behavior Change Communication.....	39
Session Overview	39
Learning Objectives	39
Detailed Facilitator Notes.....	39
Registration	39
Know your Audience	40
Communication Theory of Change.....	42
Group Activity: Risk Communication.....	43
Attribution Theories.....	45
Models of Individual Behavior Change.....	46
Individual Activity: Desktop Review of Behavior Change Management Models	47
Concluding Comments	48
SESSION 4:.....	49
Behavior Change: Barriers and Strategies	49
Session Overview	49
Learning Outcomes	49
Welcome and Recap.....	49

Introduction to Community Based Social Marketing	49
Group Activity for Step 1: Selecting Behaviors.....	50
Group Activity for Step 2: Identifying Barriers and Benefits	51
Step 3: Develop Strategy	51
Picking the Right Strategy	54
Step 4 & 5: Pilot Strategy and Implement to a Broader Audience	55
Concluding Comments	55
End of Day Evaluation	56
Facilitator’s Notes for Session 4.....	57
Community-Based Social Marketing	57
Step 1: Selecting Behaviors	57
Step 2: Uncovering Barriers and Benefits.....	59
Step 3: Developing Strategy	60
Picking the Right Strategy	61
Sample of Training Schedule	63
OHCEA EVENT EVALUATION - One Health Behaviour Change Short Course	66

Preface

This module is One of the 16 One Health Training Modules developed by the One Health Central and Eastern Africa Network (OHCEA). OHCEA is an international network, currently of 24 institutions of higher education in public health, veterinary sciences, pathobiology, global health and environmental sciences. These are located in 16 universities in 8 countries in Eastern, Central and Western Africa regions.

The universities currently forming OHCEA are: Universite des Montagnes and University of Buea (Cameroon), University of Lubumbashi and University of Kinshasa (DRC), Jimma University, Addis Ababa University and Mekelle University (Ethiopia), Moi University and University of Nairobi (Kenya), Université Cheikh Anta Diop (Senegal), Muhimbili University of Health and Allied Sciences and Sokoine University of Agriculture (Tanzania), University of Rwanda and University of Global Health Equity (Rwanda), Makerere University and Mbarara University of Science and Technology (Uganda).

The OHCEA network's vision is to be a global leader in One Health, promoting sustainable health for prosperous communities, productive animals and balanced ecosystems. OHCEA seeks to build capacity and expand the human resource base needed to prevent, detect and respond to potential pandemic disease outbreaks, and increase integration of animal, wildlife and human disease surveillance and outbreak response systems.

The overall goal of this collaboration is to enhance One Health policy formation and implementation, in order to contribute to improved capacity of public health in the region. OHCEA is identifying opportunities for faculty and student development as well as in-service public health workforce that meet the network's goals of strengthening One Health capacity in OHCEA countries.

The 16 modules were developed based on One Health core competencies that were identified by OHCEA as key elements in building a skilled One Health workforce. This network is supported by two United States University partners: Tufts University and the University of Minnesota through the USAID funded One Health Workforce Project.

Acknowledgements

This module was made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the One Health Central and Eastern Africa (OHCEA) university network under the Emerging Pandemic Threats 2 One Health Workforce Project and do not necessarily reflect the views of USAID or the United States Government. USAID reserves a royalty-free nonexclusive and irrevocable right to reproduce, publish, or otherwise use, and to authorize others to use the work for Government purposes.

OHCEA extends her gratitude to those who participated in earlier works that informed the development of this module as well as reviewers and editors of the module. Sections/parts of the materials for this course were adopted from RESPOND SEAOHUN One Health Course Modules: <https://seaohunonehealth.wordpress.com/ecosystem-health/>

A total of 16 modules have been developed including One Health soft skills such as communication, culture, leadership, gender and core technical skills such as ecosystem health, infectious disease epidemiology, One Health concepts and outbreak response. The modules are intended to:

- create a framework for One Health curriculum.
- improve workforce capacity to prevent, detect and respond to threats posed by infectious diseases and zoonosis.
- generate a shift in countries' workforce culture and training structure.
- enable working across sectors and disciplines for a stronger and more effective public health sector.
- allow universities to be key drivers of the future workforce as they forge partnerships and drive change.
- combine human health, animal health and infectious disease with principles of ecology and environmental sciences.

The modules can be used at both pre-service and in-service levels as full courses, workshops or integrated into course materials for professionals who impact disease detection, prevention and response, allowing them to successfully function as an integral part of a larger, multi-disciplinary, team of professionals. This is key to creating a stronger sustainable Public Health workforce.

Each module contains a Facilitator Guide, Student Guide, PowerPoint slides and a folder of resources/ references for users. These modules are iterative and are continuously being revised.

These 16 modules were developed by collaborative efforts of multiple disciplines and teams of people from seven different OHCEA partner countries with the support of two US university partners namely Tufts University and University of Minnesota. A team of 66 people were engaged in the development of these modules. All the materials represent contribution by the faculty and leadership of the OHCEA network institutions and the technical and managerial support of the OHCEA Secretariat.

The modules were built off previous One Health modules developed by SEAOHUN-network: [https:// seahunonehealth.wordpress.com/ecosystem-health/](https://seahunonehealth.wordpress.com/ecosystem-health/) with addition of more Africa-specific materials, examples and case studies relevant and applicable to the region. Each module was reviewed by OHCEA network faculty including US university partners with technical expertise as well as partners with field experience that allows for One Health application and appreciation of the local African context.

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Module Overview

One Health is an important global activity based on the concept that human, animal and environmental/ecosystem health are interdependent, and professionals working in these areas best serve the population by collaborating to better understand all the factors involved in disease transmission, ecosystem health, the emergence of novel pathogens and emerging zoonotic agents as well as environmental contaminants and toxins. These factors are capable of causing substantial morbidity and mortality, and impacting on socioeconomic growth, including in less developed countries (SEAOHUN, 2014). Some human behaviors impact human, animal and ecosystem health negatively by influencing the spread and control of diseases. This Behavior Change module is part of a series of One Health educational and training courses designed to serve as a context for teaching students and for workshops focused on In-service professionals responsible for human, domesticated animal, wildlife and ecosystem/environmental health.

This module will explore behavioral change theories and equip participants with knowledge and skills in different stages of behavioral change at individual and organization levels. It explores the barriers to behavioral change and their impacts on One Health. Under the One Health approach, behavior change at individual and community levels is required in addressing health issues including disease control, prevention and response.

The One Health East and Central Africa (OHCEA) network recognizes that behavior change is an important component in all stages of any One Health program design. Therefore, there is need to address behavior change in order to increase understanding of the risks associated with specific behavior patterns.

This training module will allow participants to develop critical analysis skills and challenges as they explore behavioral changes required in One Health and how policies can be developed and/or implemented to change behavior.

Target Audience

This module is intended for undergraduate and post-graduate trainees, middle and in-service personnel from multiple disciplines and sectors (private, public, non-government organizations, and the civil society). The module can also be adopted for continuous professional development by health professional organizations such as medical, pharmaceutical, veterinary, nursing, public health, environmental and technology professionals.

Goals of the Training

This module is designed to provide participants with capability to:

- i) apply concepts and theories of behavior change that influence One Health approach in disease management.
- ii) demonstrate the gender and cultural dynamics that influence behavior change in One Health disease management interventions.

Module Learning Objectives

The participants should be able to:

- i) explain the theories of behavior change.
- ii) identify the change management concepts.
- iii) explain the stages of behavioral change management.
- iv) relate the stages of change management to One Health.
- v) illustrate different models of behavior change and adapt them to One Health intervention.
- vi) explain the barriers of behavioral change in One Health.
- vii) relate gender concepts and gender dynamics to behavior change.
- viii) explain the importance of gender roles in projects advocating for behavior change and the roles of each gender in this.
- ix) assess the influence of culture, beliefs and values on behavior change.
- x) apply community based social marketing to an identified behavior change that they desire in their cases.
- xi) illustrate different models of behavior change and adapt the models for One Health.
- xii) illustrate risk communication and attribution theories.
- xiii) explain communication theories of behavior change.

How to Use the Guide

The One Health Behavior Change module contains a Facilitator Guide, student guide, PowerPoint slides and a folder of resources/references for users. The Facilitator Guide is divided into three sections namely (i) Introduction to the training module; (ii) detailed training sessions comprising: instructions for the facilitator on conducting the training and when and how to use the slides and resources; and session notes to guide the facilitation; (iii) References/ Bibliography.

Course Structure

	Topic (Goal)	Learning Outcomes (LO)	Learning and Delivery Methods	Materials	Time (Min)
01	Introduction to the Course – Module Overview	By the end of the session, participants should be able to: <ul style="list-style-type: none"> i) explain what the course entails ii) level their expectations with the course expectations 	<ul style="list-style-type: none"> • Presentations 	Sign in sheets PowerPoint Sticky notes (2 colors) Flipcharts Markers Tape Pre-Test	60
02	Concepts and Theories of Behavior Change	By the end of the session, participants should be able to: <ul style="list-style-type: none"> i) explain the theories of behavior change. 	<ul style="list-style-type: none"> • Brainstorming using PowerPoint lectures to describe theories of behavior change • Videos • Case studies • Mime to depict behavior 	<ul style="list-style-type: none"> • Computers • Internet connectivity 	120
		ii) discuss behavior change management concepts.	<ul style="list-style-type: none"> • Lectures in PowerPoint presentations to explain principles and concepts of behavior change management • Paper reviews in groups • Group 	<ul style="list-style-type: none"> • Computer • Internet connectivity • Flip charts • Markers • Papers for review • Presentation slides 	120

			discussions on behavior change management concepts		
03	Stages of Behavior Change	By the end of the session, participants should be able to:	<ul style="list-style-type: none"> • PowerPoint lectures on stages BHM • Pictorial and group discussion on BHM 	<ul style="list-style-type: none"> • Computer • Internet connectivity • Drawings • Flip charts • Felt pens • White board 	60
		i) explain the stages of behavior change management (BHM).	ii) relate the stages of behavior change management to One Health concept.	<ul style="list-style-type: none"> • Case studies to relate stages of behavior change management • Role-plays to demonstrate stages of behavior change management 	
04	Models of Individual Behavior Change	By the end of the session, participants should be able to:	<ul style="list-style-type: none"> • Case studies to illustrate application of different behavioral change management models • Group discussions 	<ul style="list-style-type: none"> • Computer • Internet connectivity • Flip charts • Markers 	60
		i) explain communication theories of behavior change.	ii) illustrate risk communication	<ul style="list-style-type: none"> • Desktop review of the available 	<ul style="list-style-type: none"> • Computers • Internet connectivity

		and attribution theories.	change management models		
05	Community Based Social Marketing (CBSM)	By the end of the session, participants should be able to apply the CBSM criteria in the selection of behaviors, identification of barriers and benefits, and development of a behavior change strategy.	<ul style="list-style-type: none"> • Drama to demonstrate influence of culture and beliefs on behavior change • Group discussion on lessons learnt from the drama 	<ul style="list-style-type: none"> • Computer • Internet connectivity • Printed notes • Drama costumes & materials 	60

SESSION 1: Behavior Change: Concepts and Theories

Session Overview

This session introduces participants to the theories of behavior change. It focuses on the concepts and theories of transformation or modification of human behavior. Participants will gain knowledge on the concepts and theories of behavioral change through:



- i) instructional PowerPoint lectures describing theories of behavior change.
- ii) mimes to depict behavior change.
- iii) tabletop reviews on change management concepts.
- iv) group discussions on change management concepts.





Learning Outcomes



By the end of this session, participants should be able to:


- i) explain the theories of behavioral change.
- ii) discuss behavior change management concepts.

Duration	Topic	Activity Type	Facilitator Instructions
15 min	Registration		Participant Registration <ul style="list-style-type: none">i) Have participants sign the OHCEA attendance register.ii) Explain logistics (e.g. breaks, meals, etc.).iii) Issue per diem.iv) If the short course is residential, check houses for accommodation.
10 min	Welcome		Facilitator's Welcome Remarks <p>Welcome participants to the training</p> Participant Introductions <ul style="list-style-type: none">i) In pairs, have participants tell each other:<ul style="list-style-type: none">o their name.o where they are from.o type of work and position.

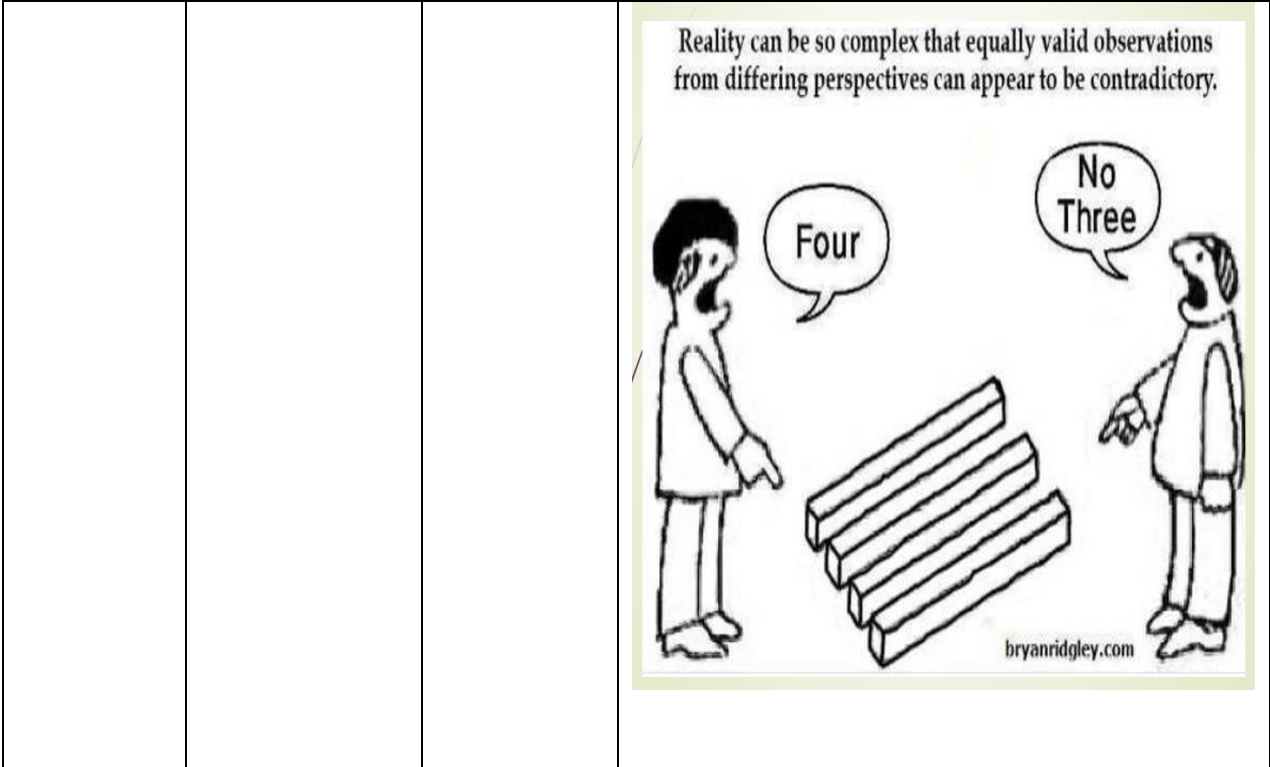
			<ul style="list-style-type: none"> o a story about an experience they had that made them aware of the difference between men and women. <p><i>ii)</i> Let them prepare a 1-minute introduction of their partner to the class.</p> <p><i>iii)</i> Go around the room and have each pair present their partner to the class.</p>
10 min	Expectations		<p>Set up:</p> <p><i>i)</i> Have two flipcharts in the front of the room: one titled “Expectations” and the other “Concerns.”</p> <p><i>ii)</i> Give each participant two different colored sticky notes.</p> <p><i>iii)</i> Ask participants to write down their expectations for the course on one of the sticky notes (specify color) and their concerns about the course on the second sticky notes (specify color).</p> <p><i>iv)</i> Let participants place their expectations sticky notes on a flipchart titled “Expectations” and their concerns sticky notes on another flipchart titled “Concerns”.</p> <p><i>v)</i> Organize the sticky notes per common expectations and concerns.</p> <p><i>vi)</i> Explain the agenda for the week and the goals of the short course, highlighting the expectations that would be met and those that would not be met over the week.</p> <p><i>vii)</i> Address concerns raised by participants.</p>
10 min	Goals		<p>Goals of the Course</p> <p><i>i)</i> Explain the goals of the short course, highlighting the expectations that will be met over the week and those that will not be met.</p> <p><i>ii)</i> Present goals indicated above under the section on “Goals of the Training”.</p>

			Comment and address concerns.
10 min	Introduction to OHCEA		<p>Introduction to OHCEA</p> <ul style="list-style-type: none"> i) Explain that this course is developed by OHCEA. ii) Explain what OHCEA is.
10 min	Guest Speaker - Opening Workshop		<p>Guest Speaker - Opening Workshop</p> <ul style="list-style-type: none"> i) In advance, be sure the speaker is prepared to address the group. Share with the speaker the goals and desired outcomes of the course, and what you would like her/him to emphasize in her/his address. ii) Introduce the guest speaker to “officially open the course.”
10 min	Pre-test		<p>Pre-test</p> <ul style="list-style-type: none"> i) Give out copies of the pre-test. ii) Inform participants that they have 15 minutes to complete the pre-test. Explain that a pre-test is used to gauge how much they will have learned over the week, and a post-test will be administered at the end of the course. The two tests will be compared. There is no grade associated with the pre-test.
20 min	What is One Health?	 	<p>Discovery Activity: What is One Health?</p> <ul style="list-style-type: none"> i) Begin this session by letting the participants watch the following videos: <ul style="list-style-type: none"> One Health: From Concept to Action by CDC https://www.youtube.com/watch?v=TG0pduAYESA One Health: From Idea to Action: https://www.youtube.com/watch?v=gJ9ybOumITg&t=4s ii) Briefly discuss the two videos with the participants.

			<ul style="list-style-type: none"> iii) Let each participant take 5-7 minutes to write down on separate sticky notes answers to each of the following: <ol style="list-style-type: none"> 1. The meaning of One Health approach. 2. Two examples of One Health practice. 3. Three advantages to multiple disciplines working together to promote One Health. iv) Let participants display these sticky notes on the wall in the three separate sections. Then in a plenary, review the following: <ol style="list-style-type: none"> 1. What are the common things identified? 2. What are the differences? 3. Is there anything that surprised anyone? v) Come up with a joint definition of what One Health is. vi) Do a brief PowerPoint presentation (PPP No. 1) introducing One Health.
30 min		 	<ul style="list-style-type: none"> i) Have participants watch the following video on three myths of behavior change. <p>Three Myths of Behavior Change - What You Think You Know that You Don't: Jeni Cross at TEDxCSU</p> <p>https://www.youtube.com/watch?v=l5d8GW6GdR0</p> ii) Spend 15 minutes discussing the video. <ol style="list-style-type: none"> 1. Do participants agree with her opinion? 2. Can they give examples from their own experience on similar issues and responses?


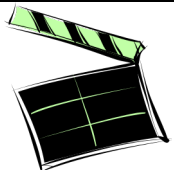
20 min	<p>What is Behavior?</p>		<p>Discovery Activity: What is Behavior?</p> <ul style="list-style-type: none"> i) Let each participant take 5-7 minutes and write down on separate sticky notes the answers to the following questions: <ul style="list-style-type: none"> 1. What is behavior? 2. What are two examples of behavior influence? ii) Participants may use the Internet and PowerPoint presentation (PPP No. 1B) to generate more examples of behavioral influence. iii) Let participants display the sticky notes on the wall in the three separate sections. Then in a plenary, review the following: <ul style="list-style-type: none"> 1. What are the common things identified? 2. What are the differences? 3. Is there anything that surprised any participant?
40 min			<p>Definition of Behavior</p> <ul style="list-style-type: none"> i) As a group, let participants come up with a definition of behavior. ii) Let them discuss the following images:

			<div data-bbox="816 205 1429 821" data-label="Image"> </div> <p data-bbox="816 842 1274 877">iii) In summary, mention that:</p> <ul data-bbox="868 884 1429 1413" style="list-style-type: none"> • Psychologists define behavior as a function of the interaction between the person and the environment. • All the behaviors shown in the above images can only take place in an environment. • You can only wash your hands if you have access to water. • You can only poach or protect rhinoceroses in an area that supports rhinoceros. • You can only ride a bicycle if there is a bicycle available to you. <p data-bbox="816 1419 1274 1455">iv) And you should know that:</p> <ul data-bbox="868 1461 1429 1682" style="list-style-type: none"> • what we do depends on how we perceive and interpret the world around us. • different people can see the same situation differently, and their behavior will vary accordingly.
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Discovery Activity: What is Behavior Change? What Role Does Gender Play in Behavior Change?

- i) Divide participants into three groups.
- ii) Present each group with a case and let the group discuss the assigned case. The groups should come up with possible answers why there has been no change in behavior.
- iii) After discussing these three case activities, every participant should take a sticky note and write down one example of a behavior they have seen changed in their life or work, and one example of a behavior that failed to change. Everyone should then post their notes and the class should generate a list of reasons for their success and for their failure.
- iv) With all participants, recapitulate the role of gender in the above activities and what impact it has on the success of a behavior change

			campaign.
60 mins			<p>i) Divide participants into two groups. ii) Provide each group with a separate activity. iii) Give them 5 minutes to review the activity provided and then have them discuss it and present their findings to the rest of the participants.</p> <p>Group 1: Activity Discuss the myths and facts regarding behavior change in a community focusing on One Health and gender issues.</p> <p>Group 2: Activity Discuss the determinants of human behavior focusing on One Health and gender issues.</p> <p>Group Presentations</p> <p>i) Each group has 10 minutes to present and 10 minutes to discuss the case study. ii) Present the PowerPoint presentation (PPP No. 2) on Theories of Behavior Change for 20 minutes.</p>
		 Role Play	<p>Group Activity: Mime to Depict Behavior Change</p> <p>i) Divide participants into four groups. Assign each group one of the following diseases: Anthrax, Rift Valley Fever, Influenza and Ebola. ii) Let the groups take 10 minutes to read about the disease and its transmission. They should then develop a role-play to demonstrate how the disease is transmitted, and what behaviors can be changed to break the cycle of transmission. Give participants the following instructions:</p> <ul style="list-style-type: none"> • For the disease you have been

			<p>assigned, design a short role-play of not more than 5 minutes demonstrating how the disease is transmitted. Once you have demonstrated transmission, demonstrate what prevention measures can break the cycle of transmission and what behavior change activities can be used to support this.</p> <ul style="list-style-type: none"> • You have 15 minutes to plan and prepare your role-play. • The other participants will be instructors, who will observe the role-play and give feedback as well as identify gaps. An instructor checklist is provided. • After the role-plays, fill out the index card, listing what behavior change would help prevent transmission of the disease you have presented. <p>iii) The idea or mood of portraying the behavior should be entirely by gesture and bodily movement without the use of words. The mime should focus on behavior, gender and One Health.</p> <p>iv) As an example, participants could use the following mime on behavior change related to sleeping under a mosquito net:</p> <p><i>A young woman is bitten by mosquitoes at night and is unable to get any sleep. The following day she is sleepy in class and her friend advises her to buy a mosquito net. The woman goes to the market and purchases a mosquito net. She has a good night sleep.</i></p>
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			<p>v) Discuss the role-play activity and identify key take-home messages and conclusions. Consider the following questions as prompts:</p> <ol style="list-style-type: none"> 1. What did you observe during the role-play? 2. What are the different ways in which diseases can be transmitted? 3. Based on transmission, how can disease prevention vary? 4. What behavior changes need to take place? 5. How successful are the behavior changes? What are some of the reasons why they are successful? 6. Are there other professionals you may need to work with to understand the transmission mechanisms, or to implement prevention measures?
60 mins			<p>i) Present the following case study and let participants read and discuss it.</p> <p>Case Study 1: Survival in War-torn Areas in Southern Sudan: A Case of Behavioral Change to Cope with the Situation</p> <p>Group Presentations:</p> <p>ii) Each group has 10 minutes to present and 10 minutes to discuss the case study.</p>
20 min			<p>End the session by having participants watch this video on: Change Behavior - Change the World: Joseph Grenny at TEDxBYU</p> <p>https://www.youtube.com/watch?v=6T9TYz5Ux10</p>
10 mins			<p>Provide concluding comments to summarize the topic.</p>

			<p>End of Day One Evaluation</p> <ul style="list-style-type: none">i) Create the flip chart shown below.ii) Ask the class: “How did it go today?”iii) Ask them to answer the question by drawing one of the faces below to represent their answer and adding comments that they would like to bring to your attention. <table border="1" data-bbox="951 537 1438 653"><tr><td><p>How did it go today?</p><p>☺☹☹</p><p><i>Comments:</i></p></td></tr></table>	<p>How did it go today?</p> <p>☺☹☹</p> <p><i>Comments:</i></p>
<p>How did it go today?</p> <p>☺☹☹</p> <p><i>Comments:</i></p>				

Facilitator's Notes for Session 1

Prior-training reading material: Send out the following four articles to participants to read before they come to the training room:

Ajzen, I (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes* 50, 179-211.

Armitage, C. and Conner, M. (2001). Efficacy of the Theory of Planned Behavior: A Meta Analytic Review. *British Journal of Social Psychology* 40, 471-499.

Bandura, A. (1991). Social Cognitive Theory of Self-regulation. *Organizational Behavior and Human Decision Processes* 50(2): 248-287.

Bandura, A (1977). Self-efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review* 84: 191–215.

What is OHCEA?

One Health Central and Eastern Africa, in short OHCEA, is an international network of 24 institutions of higher education in Public Health and Veterinary Sciences, Pathobiology, Global Health and Environmental Sciences. These are located in 16 universities in 8 countries in Eastern, Central and Western Africa regions. The Universities currently forming OHCEA are: Universite des Montagnes and University of Buea (Cameroon), University of Lubumbashi and University of Kinshasa (DRC), Jimma University, Addis Ababa University and Mekelle University (Ethiopia), Moi University and University of Nairobi (Kenya), Université Cheikh Anta Diop (Senegal), Muhimbili University of Health and Allied Sciences and Sokoine University of Agriculture (Tanzania), University of Rwanda and University of Global Health Equity (Rwanda), Makerere University and Mbarara University of Science and Technology (Uganda).

OHCEA network's vision is 'to be a global leader in One Health, promoting sustainable health for prosperous communities, productive animals and balanced ecosystems". OHCEA seeks to expand the human resource base needed to detect and respond to potential pandemic disease outbreaks, and increase integration of animal, wildlife and human disease surveillance and outbreak response systems, through innovative pre-service and in-service programs.

The network's overall aim is to effect positive and sustained change to address complex global health challenges through trans-disciplinary, One Health approaches. Universities play a critical role in the education and training of current and future One Health Workforce. In addition to their traditionally conceived 'educational' role (knowledge transfer), universities undertake primary 'research' (generate new knowledge), as well as 'outreach services' (translate or extend knowledge).

Goals of the Course

The module is designed to provide participants with capability to:

- i) apply concepts and theories of behavior change that influence One Health approach in disease management.
- ii) demonstrate the gender and cultural dynamics that influence behavior change in One Health disease management interventions.

What is One Health?

Introduction to One Health

There are many different definitions of One Health by different health organizations, but for the purpose of this course, we will adopt the American Veterinary Medical Association (AVMA) definition of One Health (www.avma.org). AVMA defines One Health as the integrative (collaborative) effort of multiple disciplines working locally, nationally, and globally to attain optimal health for people, animals, and the environment. Together, the three make up the **One Health** triad, and the **health** of each is inextricably connected to the others in the triad.

Concept of One Health

The common theme of One Health is multiple disciplines working together to solve problems at the human, animal and environmental interface. Collaborating across sectors that have a direct or indirect impact on health involves thinking and working across silos and enhancing resources and efforts while valuing the role each different sector plays. To improve the effectiveness of the One Health approach, there is a need to create a balance and a greater relationship among existing groups and networks, especially between veterinarians and physicians, and to amplify the role that environmental and wildlife health practitioners, as well as social scientists and other disciplines play to reduce public health threats.

One Health Developments

In less than 10 years, One Health has gained significant momentum. It is now a movement that is moving fast. The approach has been formally endorsed by the European Commission, the US Department of State, US Department of Agriculture, US Centers for Disease Control and Prevention (CDC), World Bank, World Health Organization (WHO), Food and Agriculture Organization of the United Nations

(FAO), World Organization for Animal Health (OIE), United Nations System Influenza Coordination (UNSIC), various universities, NGOs and many others.

The current One Health movement is an unexpected positive development that emerged following the unprecedented global response to the Highly Pathogenic Avian Influenza. Since the end of 2005, there has been increasing interest in new international political and cross-sectoral collaborations on serious health risks. Numerous international meetings and symposia have been held, including major initiatives in Winnipeg (Manitoba, Canada, March 2009), Hanoi (Vietnam, April 2010), and Stone Mountain (Georgia, US, May 2010), as well as four international One Health scientific congresses, the last of which took place in Saskatoon, Canada in 2018.

What is Behavior?

- i) Behavior is the way in which one acts or conducts oneself.
- ii) It is the way in which a person behaves in response to a situation or stimulus.
- iii) There are a broad range of activities and approaches which focus on the individual, community, and environmental influences on behavior.
- iv) Psychologists define behavior as a function of the interaction between the person and the environment.
- v) Behaviors can only take place in an environment.
- vi) What a person does depends on how s/he perceives and interprets the world around him/her.
- vii) Different people can see the same situation differently, and their behavior will vary accordingly.

What are the Factors that Influence Behavior?

There are many factors that influence our behaviors. We are, however, affected differently by these factors. For example, the way we are affected by risk perception, emotions, attitudes and norms, vary from person to person and from culture to culture, etc.

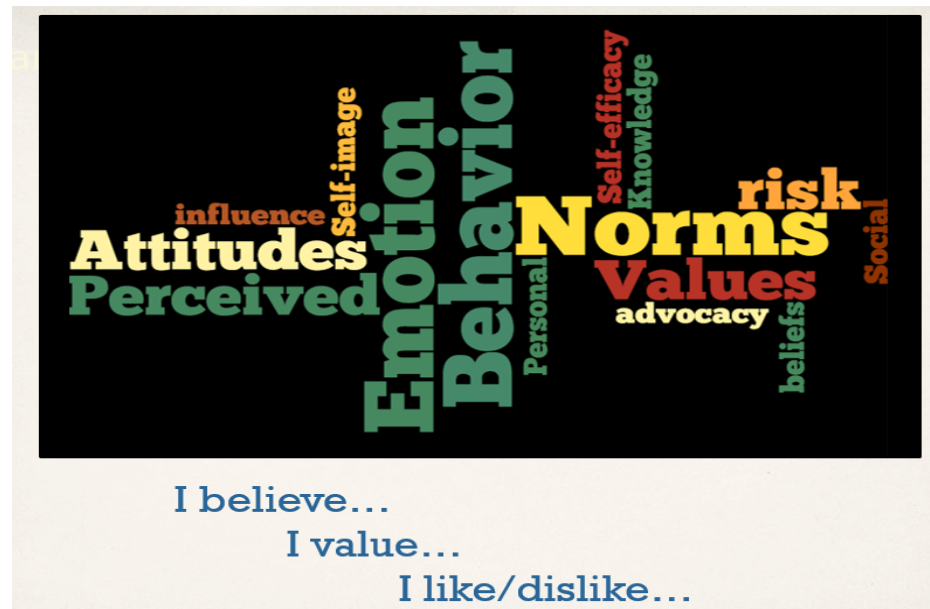
Our beliefs, values and attitudes are more likely to be regarded as predictors of behavior than knowledge.

A belief is something you are **convinced is true** (may be based on fact, faith, or hearsay. For example: I believe in climate change because 97% of scientists say it is happening).

Values are **guiding principles** (for example: I value a healthy environment).

Attitudes are positive or negative **feelings** based on beliefs and values. (For example: I dislike Hummers because they use a lot of fuel. This attitude meshes well with my belief in climate change and value of a healthy earth.)

Behavior change refers to any transformation or modification of human behavior.



Over a quarter of a century of quantitative research has shown that the determining factor why a person does what he/she does is his/her **values**. Values are tied directly to our **emotions**, not our rational faculties. They are what so frequently make us choose something or perform an action before we have thought about the consequences.

Cultural Dynamics Strategy & Marketing, a UK-based company, studied the values, beliefs and motivations of (primarily) the population of the United Kingdom and determined that people can be divided into groups called **value modes**, which fall into 3 broad categories.

The research is relevant for people interested in studying behavior because a person's value mode will affect what they perceive as **barriers** and **benefits**. The 3 categories are:

- i) **settlers** (sustenance driven, focused on meeting own needs/those in innermost circle). They tend to look backwards, to yesterday (which was better) and dislike anything new or different. They aim to establish a sense of identity, belonging and security.
- ii) **prospectors** (driven by what others think and on upward mobility). They live in the now, for today, and seek rewards in terms of status, fashion, and achievement. They don't like to be told they are doing anything wrong, or that they ought to give anything up.

- iii) **pioneers** (driven by intrinsic values and making the world a better place). They look forward, both in time and to new horizons: like change, discovery, and the unknown so long as it is ethically acceptable. They have already met their need for belonging and status.

Value modes

- Settlers
- Prospectors
- Pioneers



Discovery Activity: What is Behavior Change? What Role Does Gender Play in the Following Scenarios?

Group 1

There is an outbreak of Avian Influenza in Kabale in Uganda. The government decides that to completely eradicate this disease, they will slaughter all poultry. They decide to compensate all those who have more than 50 poultry. They announce that everyone with poultry should register with the animal health department for them to be compensated. In this way they think they have controlled the disease. Two weeks later, more sick chickens are found in the same community. When they investigate, they find out that the moment the birds show any signs of illness, the owners quickly slaughter and sell them at a marketplace. Very few of them are following instructions to report sick poultry.

Questions for discussion

1. Who is most likely to have control over backyard poultry or own fewer than 50 birds?
2. How is this a gender issue?
3. What are the possible gender roles in this community?
4. What mistakes is the government making and how can they be rectified?

Group 2

A certain NGO has been working on reducing the level of Brucellosis in this community. Since Brucellosis is transmitted through consumption of milk that is not boiled and milk products, they have held several community education classes to inform the people to boil milk and cook the meat thoroughly. Six months later when they are evaluating their project, they discover that there is no change in the level of brucellosis in the village.

Questions for discussion

1. What are the key gender issues?
2. Who is responsible for boiling milk? How do you specifically target that group?
3. How do you ensure that every community member (male or female) has access to the community education classes?
4. What would you do differently?

Group 3

Rinkwavu Hospital in Kayonza, Rwanda, has of late been seeing lots of cases of malnutrition. Thus, they have started a malnutrition program in which they provide food supplements to all the children brought into the hospital with malnutrition. They also educate the mothers on how to give their children a balanced diet so that they do not get malnutrition. They have noticed, however, that the level of malnutrition is not improving and the same families keep coming back to them with the same malnutrition problem.

Questions for discussion

1. What could be at the root of the failure?
2. Are there any gender related issues? How would you deal with them?
3. What plan would you put in place to ensure success?

Case Study 1: Survival in War-torn Areas in Southern Sudan: A Case of Behavioral Change to Cope with the Situation

Present the case study and let participants read and discuss it.



Source: Internet

During the 2014 conflict between the two topmost officials in the government of South Sudan, a civil war broke out that led to death of many people in Jonglei State. A teenage girl, born in a family with many children in South Sudan, finds herself at the center of this civil war. Many people are killed while others are displaced from their homes. Her family too has been affected by the war—their home was burnt down and her parents killed in the process. Suddenly she must take over the responsibility of looking after her siblings, following the tragic death of her parents. The children, in addition to losing the parents, have also lost all the property, and the relatives are nowhere to be found.

Homeless and without the parents, this teenage girl is beginning to face a new life and challenges ahead of her. She must fend for her 6 other siblings. Her immediate concerns are how to get food and shelter for her siblings. One of the children is sick from an unknown infection characterized by high fever, bleeding from the nose and lack of appetite. This child needs urgent medical attention that can only be got 50km away in a refugee camp that has been set up by the World Food Program. Unfortunately, the end of the civil war is unknown and it could go on for many more months. There is no transport and most of the neighborhood is unsafe.

Questions for discussion

1. If you were the teenage girl, what would you do to make sure the children left in your care are taken care of?
2. What behavioral changes do you expect from:
 - i) the elder child?
 - ii) the rest of the children?
3. Who should take care of the family?
4. What should be done for the children to cope with the situation they are in?
5. Which stakeholders do you think are important in resolving the problems this young family is facing?
6. As an upcoming Behavioral Change specialist, what strategies can you put in place to manage such problems in South Sudan?
7. How would you apply One Health principles in such a scenario?
8. What is the impact of gender in this situation?

References

World Bank. (2010). *Theories of Behavior Change*. Communication for Governance and Accountability Program (CommGAP). Washington, DC: World Bank.
<http://documents.worldbank.org/curated/en/2010/01/11629704/theories-behavior-change>

Morris, J., Marzano, M., Dandy, N. and O'Brien, L. (2012). *Theories and Models of Behavior and Behavioral Change*, Forest Research.

SESSION 2: Stages of Behavioral Change (Management) Model

Session Overview

This session focuses on the stages of Trans-Theoretical Model (TTM) or Stages of Change Model. The model operates on the assumption that people do not change behaviors quickly and decisively. Different behavioral theories and constructs can be applied to various stages of the model where they may be most effective. The following are the six stages of behavioral change that will be highlighted in this session: pre-contemplation, contemplation, preparation, action, maintenance and termination. Participants will also know that to progress through the stages of change, application of cognitive, affective and evaluative processes is required. The 10 processes of change that have been identified and their relevance to a specific stage of change process will also be highlighted in this session.

Learning Outcomes

By the end of this session, participants should be able to:

- i) explain the stages of behavioral change management.
- ii) relate the stages of change management to One Health concept.

Schedule	Topic/Activity	Learning Activity	Materials
8:00 - 9:00	Registration		Sign-in sheet
9:00 - 10:00	Stages of Behavior Change	Presentations	PowerPoint Sticky notes (2 colors)
10:00 - 10:15	Tea Break		
10:15 - 1:00	Stages of Behavior Change Continued: Case Study	Small Group Activity	Flipcharts & Markers
1:00 - 2:00	Lunch		
2:00 - 3:30	Factors that Influence Behavior Change	Small Group Activity	Flipcharts & Markers
3:30 - 3:45	Tea Break		
3:45 - 4:30	Change Management	Interactive Presentation	PowerPoint
4:30 - 4:45	Evaluation of the Day	Plenary	Flipchart

Detailed Facilitator Notes



10 min

Registration

- i) Let participants sign the OHCEA attendance register
- ii) Explain logistics (e.g. breaks, meals, etc.)



10 min



Welcome

Facilitator welcome remarks.



35 min



Pre-work

- i) Use climate change as an entry point into discussing the stages of behavior change
- ii) Select one or more of the following papers on the impacts of climate change for participants to read before this session.
 - From Failure to Success: Reframing the Climate Treaty by William Moomaw.
<http://www.fletcherforum.org/2014/02/10/moomaw/>
 - 350 Africa: 8 Ways Climate Change is Already Affecting Africa: <http://350africa.org/8-ways-climate-change-is-already-affecting-africa/>
- iii) Participants should read the assigned paper(s) and prepare a quick presentation on how climate changes affect ecosystem health and then brainstorm what they think needs to be done.



- iv) Have participants watch the following YouTube video on 7 Insane Effects of Climate Change on Your Life

<https://www.youtube.com/watch?v=7mYJ9GJMgaw>



60
minutes

Stages of Behavior Change

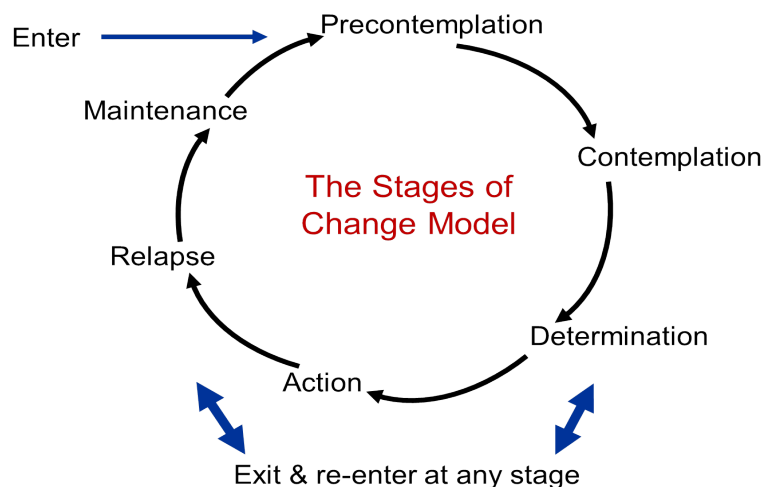
- i) Do a PowerPoint presentation (**PPP No. 3**) for 15 minutes on the stages of behavioral change.
- ii) Behavioral change is not as straightforward as many people might imagine. Breaking free of your bad habits is not a question of waking up one day, having a light bulb go off in your head and have all your bad habits dropped. Research shows that there are five distinct

steps for you to achieve positive and lasting behavioral changes.



According to the Trans-Theoretical Model, the six stages to achieve positive and lasting behavioral changes are: pre-contemplation, contemplation, determination, action, relapse and maintenance. People may oscillate between the various steps for many months or years before achieving long lasting change in their behavior.

These stages of behavior change and how they are related to each other are displayed below.



Group Activity: Literature Review on Stages of Behavioral Change



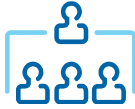
- i) Break participants into six groups, with each group taking one of the stages of behavioral change. The group should identify a One Health issue in which they would like to change the behavior. They should then do an internet search on the identified issue and the relevant behavior at the stage they have been assigned.

- ii) Give them an example as below:

The One Health issue is an Ebola outbreak in a village in Liberia. The disease is spreading because people are getting in contact with the dead bodies. They are at the relapse stage because their culture defines that they must all touch the bodies before they are buried. What can they do to change this behavior or prevent disease transmission? Ways of solving the issue include: wearing gloves when they touch the bodies, identifying only a certain group of people to be engaged in this

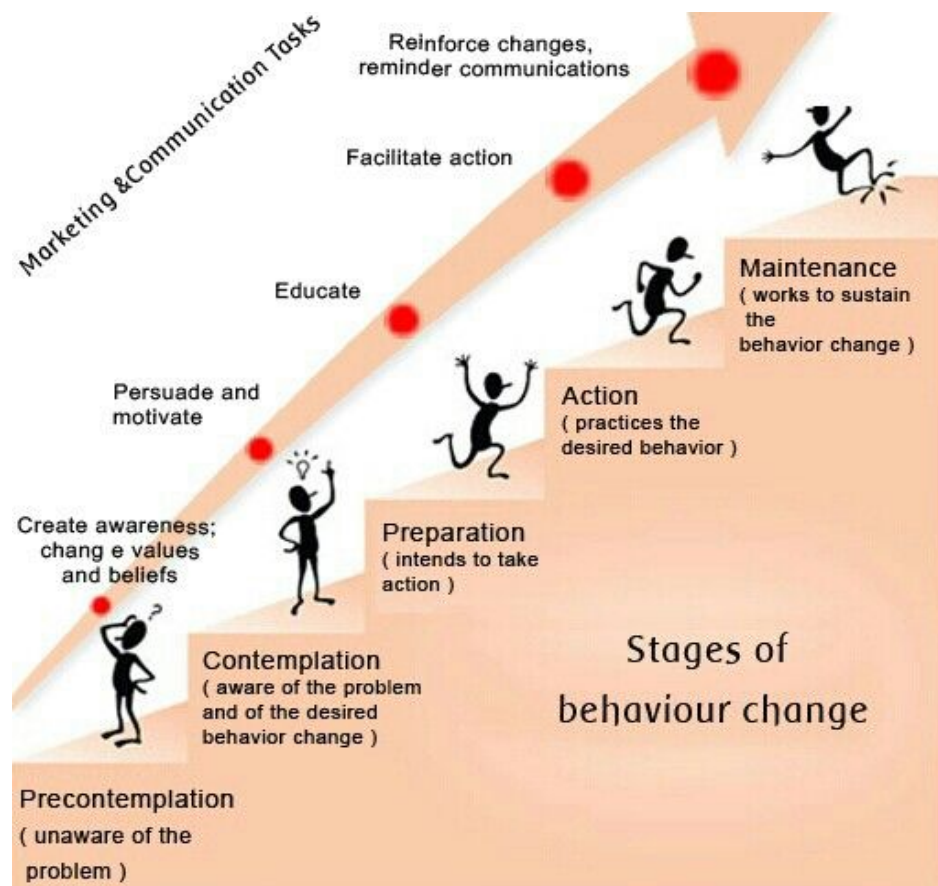


20 min



community ritual and having them trained on how to handle the bodies and also educating them on Ebola transmission.

- iii) Participants will have 15 minutes to prepare and then present to the class their activity, the stages, decisions and behavior change methods identified.
- iv) Let the groups present for five minutes.
- v) Discuss the different group presentations. Ensure that all the groups are aware of the different stages of behavior change.



Debrief on Climate Change Video

Let participants go back to the video on *Climate Change and Impact on their Lives*, and discuss at what stage they think they make changes in their lives that can reduce the impacts of climate change. They should also discuss any changes their countries or other nations are making, and how impactful they are on climate change. Do participants notice countries at different stages of change? What suggestions do they have?

This activity should take 30 minutes.



30 min

Case Study: Stages of Behavior Change Management

Have participants work through the following case:

This PBL case was created by the following team: Micheal Tukey¹, Rosine Manishimwe¹, Asimwe Benon¹, Theoneste Ntakirutimana,² University of Rwanda, College of Agriculture, Animal Science and Veterinary Medicine, School of Animal Sciences and Veterinary Medicine, University of Rwanda, College of Medicine and Health Sciences, Environmental Health Science Department.

Pesticide Poisoning

Muvumba River is in Eastern Province, Nyagatare District, Rwanda. The district is known for its agricultural and pastoralist activities. People practice irrigation system in farming. Among the major drawbacks that face farmers are pests. To overcome such problems, farmers indiscriminately use pesticides to protect crops against birds, rats and other vermin. This practice has been reported to be associated with many problems to the people, animals and the environment. As rice starts ripening, many birds come to feed on the grains and farmers apply pesticides to kill the birds. The birds die but rain also washes away the pesticides into fish ponds and streams feeding Muvumba River. In the water ponds, dead fish are found and cattle which drink from these water ponds are reported by the veterinary department to have developed diarrhea and experience abortion. Among the neighboring community, cases of gastroenteritis have been reported from the local dispensary, among families that have eaten fish from the ponds. Studies further show high levels of pesticides in water collected from ponds, dams and streams along the course of Muvumba River. Individual effort has been done by Ministry of Health, RAB and REMA to investigate and find solutions but the problem still exists. After investigation, REMA reported the following results:

- Rice farmers did not have Environmental Impact Assessment (EIA) certificates
- Pesticide sellers in the region did not have license
- There were high levels of pesticides in water collected from ponds, dams and streams along the course of Muvumba River.



Questions that need to be addressed:

1. What are some of the issues that are detected in this case study?
2. What are the risks associated with indiscriminate use of pesticides?
3. What are the laws that govern the use of pesticides?
4. What are the interactions between human activity, domestic animals and environment along Muvumba River basin?
5. What are some of the behaviors that need to be addressed? What stages are they in? Can you identify some behavior changes you would promote? To whom would these be addressed?
6. Who are the different stakeholders? What is the relevance of communication between different stakeholders? What different issues do the different stakeholders face?
7. What is the value of multidisciplinary approach in solving the problem?

Questions and Answers

1. **What is the role of carrying out an Environmental Impact Assessment (EIA) in farming project?**

Answer

The role of EIA in farming is to promote sustainable development by ensuring that farming projects do not undermine ecological functions or the well-being, lifestyle and livelihood of communities and farmers that depend on them.

Carrying out an EIA on farming projects has direct and indirect benefits. Direct benefits include assisting farmers to incorporate environmental considerations at designing stage to minimise environmental risks and financial costs. Indirect benefits include beneficial circumstances created by the project.

At project planning and designing stage, EIA identifies adverse environmental consequences early, facilitates their prevention and mitigation. Hence, at such an early stage, the level of environmental compliance of an activity is revealed.

For the authority, EIA provides a clear, impartial and transparent basis for efficient decision-making and eliminates stumbling blocks that would have been caused by unforeseen adverse environmental impacts of a farming project. Hence, the earlier the implementation of EIA is incorporated in the

project, the more beneficial it is to humans, animals and the environment.

2. What are the rules and regulations governing the use of pesticides in Rwanda?

Pesticides should be:

- stored away from the public.
- kept out of reach of children.
- used by qualified personnel with protection equipment.
- imported by authorized persons with an import permit provided by RAB.

3. What are the major risks associated with the use of pesticide?

Pesticides have been linked to a wide range of human health hazards, ranging from short-term impacts such as headaches and nausea to chronic impacts like cancer, reproductive harm and endocrine disruption. Acute dangers such as nerve, skin and eye irritation and damage, headaches, dizziness, nausea, fatigue, and systemic poisoning can sometimes be fatal.

Chronic health effects may occur years after even minimal exposure to pesticides in the environment, or from the pesticide residues which we ingest through our food and water.

The impacts of pesticides on the environment have been well-known. Pesticides are toxic to living organisms. Some can accumulate in water systems, pollute the air, and in some cases, have other dramatic environmental effects. Scientists are discovering new disturbing threats of pesticides to the environment.

Pesticides and the Environment

Pesticide use can damage agricultural land by harming beneficial insect species, soil microorganisms and worms which naturally limit pest populations and maintain soil health. They also weaken plant root systems and immune systems, and reduce concentration of essential plant nutrients in the soil, such as nitrogen and phosphorous.

Group Activity: Factors that Influence Behavior Change

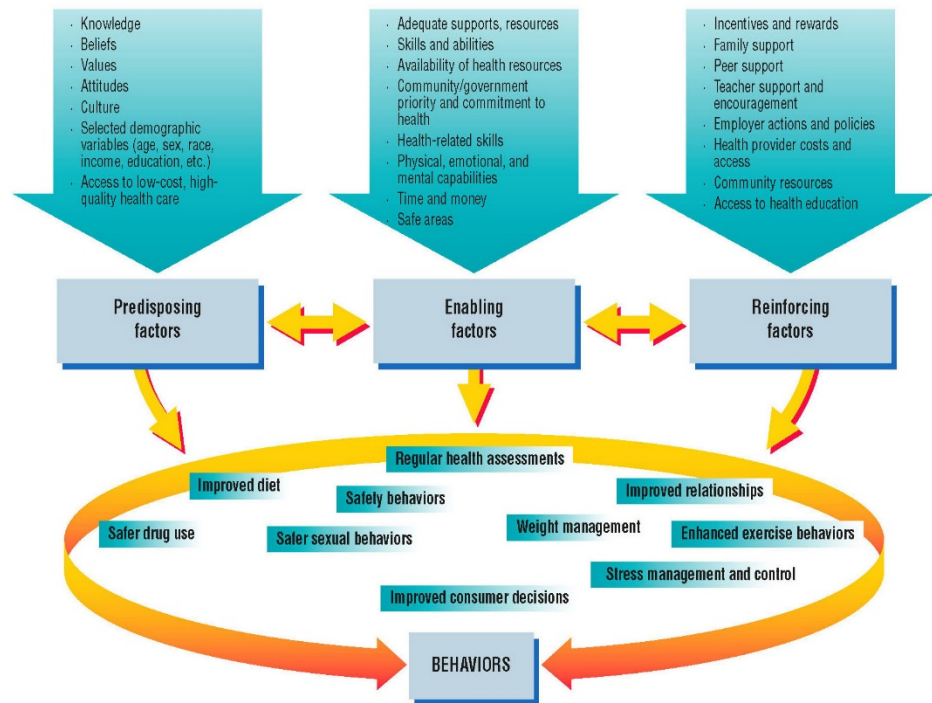
- i) Divide participants into two groups. Ask each group to

debate factors that impede behavior change to stop the use of plastic bags for the benefit of the environment in One Health initiative. Let participants suggest interventions to solve the problem using the Behavior Change Model.

- ii) Chose a theoretical model that seems the best for the community issue in the above case study and the strategy to address the situation.
- iii) Draw a table containing columns on:
 - key constructs
 - current situation
 - ideal situation

Reference

Factors that influence behavior change



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1) World Health Organization (2006) Sound management of pesticides and diagnosis and treatment of pesticides poisoning. A resource tool. WHO, Paris.

Available on: http://www.who.int/whopes/recommendations/IPCS/Pesticide_0_k.pdf

Accessed: 1/12/2015

Group Activity: Stages of Behavior Change Management

Use role-play to demonstrate the stages of behavior change management.



Concluding Comments

The above Behavior Change Model provides suggested strategies for public health interventions to address people at various stages of the decision-making process. This can result in interventions that are tailored and effective. The model encourages an assessment of an individual's current stage of change and accounts for relapse in people's decision-making process. The TTM uses the stages of change to integrate the most powerful principles and processes of change from leading theories of counseling and behavior change. TTM seeks to include and integrate key constructs from other theories into a comprehensive theory of change that can be applied to a variety of behaviors, populations and settings (e.g. treatment settings, prevention and policy-making settings, etc.). Studies on behavior change have found that people move through a series of stages when modifying behavior. While the time a person can stay in each stage varies, the tasks required to move to the next stage are not. Certain principles and processes of behavior change work best at each stage to reduce resistance, facilitate progress and prevent relapse. TTM recognizes change as a process that unfolds over time, involving progress through a series of stages. While progression through the stages of behavior change can occur in a linear fashion, a non-linear progression is common. Often, individuals recycle through the stages or regress to earlier stages from later ones.

End of Day Evaluation

- i) Create the flipchart shown below
- ii) Ask the class: "How did it go today?"
- iii) Ask them to answer the question by drawing one of the faces below to represent their answer and adding comments that they would like to bring to your attention.

How did it go today?



Comments:

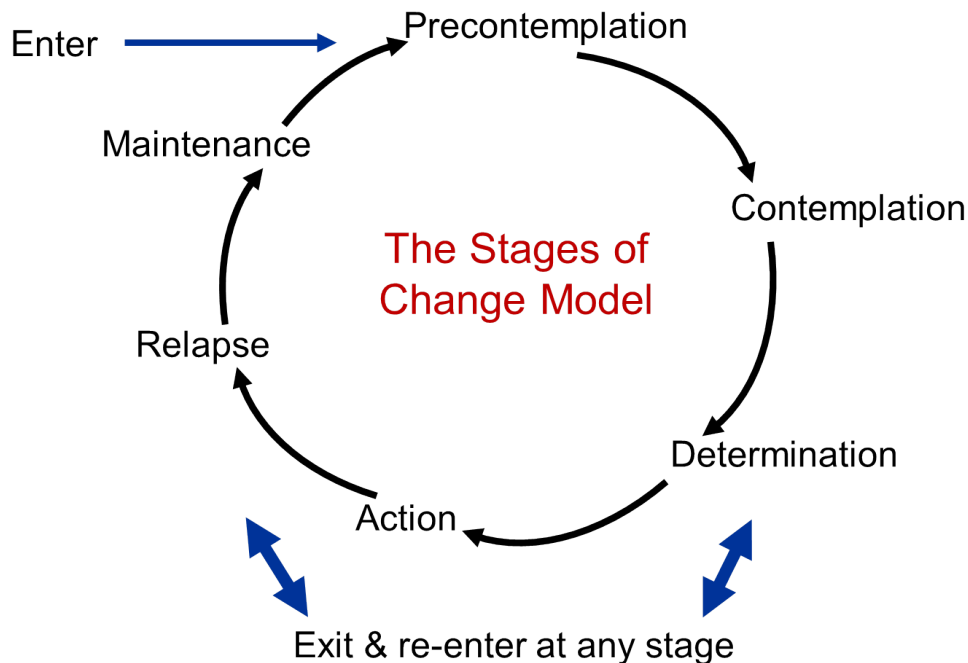
Facilitator Notes for Session 2

The Trans-theoretical Model or the Stages of Change Model, was developed in the late 1970s (Prochaska and DiClemente 2008). It has evolved through studies that examined the experiences of smokers who quit on their own and those requiring further treatment in order to understand why some people were capable of quitting on their own. It was determined that people quit smoking if they were ready to do so. Thus, the TTM focuses on the decision-making of the individual based on the model of intentional change. The TTM operates on the assumption that people do not change behaviors quickly and decisively, but that change in behavior, especially habitual behavior, occurs continuously through a cyclical process. The TTM is not a theory but a model; different behavioral theories and constructs can be applied to various stages of the model where they may be most effective. The TTM posits that individuals move through the following six stages of change: pre-contemplation, contemplation, preparation, action, maintenance and termination. Termination was not part of the original model and is less often used in application of stages of change for health-related behaviors. In this session, you will learn details of the Stages of Behavior Change Model.

Stages of Behavior Change

There are six stages of behavior change. The entry-exit may take place at any stage. Figure 1 displays the stages of behavior change and how they are related to each other.

Figure 1: The Stages of Change Model



TTM provides suggested strategies for public health interventions to address people at various stages of the decision-making process. This can result in interventions that are tailored (for example, a message or program component has been specifically created for a target population level of knowledge and motivation) and effective. The TTM encourages an assessment of an individual's current stage of change and accounts for relapse in people's decision-making process.

TTM uses the stages of behavior change to integrate the most powerful principles and processes of change from leading theories of counseling and behavior change. It is based on principles developed from over 35 years of scientific research, intervention development and scores of empirical studies. The model applies the results of research funded by over \$80 million worth of grants and conducted with over 150,000 research participants; and is currently in use by professionals around the world.

Trans-theoretical Model (Prochaska & DiClemente, 1983; Prochaska, DiClemente, & Norcross, 1992) is an integrative, biopsychosocial model to conceptualize the process of intentional behavior change. Whereas other models of behavior change focus exclusively on certain dimensions of change (e.g. social or biological influences), TTM seeks to include and integrate key constructs from other theories into a comprehensive theory of change that can be applied to a variety of behaviors, populations and settings (e.g. treatment, prevention and policy-making, settings, etc.), hence, the name Trans-theoretical.

Stages of behavior change lie at the heart of TTM. Studies of change have found that people move through a series of stages when modifying behavior. While the time a person can stay in each stage is variable, the tasks required to move to the next stage are not. Certain principles and processes of change work best at each stage to reduce resistance, facilitate progress and prevent relapse. These principles and processes include decisional balance, self-efficacy and processes of change. Only a minority (usually less than 20%) of a population at risk is prepared to act at any given time. Thus, action-oriented guidance mis-serves individuals in the early stages. Guidance based on the TTM results in increased participation in the change process because it appeals to the whole population rather than the minority ready to act.

The stage construct represents a temporal dimension. Change implies phenomena occurring over time. Surprisingly, none of the leading theories of therapy contained a core construct representing time. Traditionally, behavior change was often construed as an event, such as quitting smoking, drinking, or overeating. TTM recognizes change as a process that unfolds over time, involving progress through a series of stages. While progression through the stages of change can occur in a linear fashion, a nonlinear progression is common. Often, individuals recycle through the stages or regress to earlier stages from the later ones.

Pre-contemplation (Not ready)

People in the pre-contemplation stage do not intend to act in the foreseeable future, usually measured as the next six months. Being uninformed or under-informed about the consequences of one's behavior may cause one to be in the pre-contemplation stage. Multiple unsuccessful attempts at change can lead to demoralization about the ability to change. Both the uninformed and under-informed tend to avoid reading, talking, or thinking about their high-risk behaviors. They are often characterized in other theories as resistant, unmotivated, or unready for help. The fact is, traditional programs were not ready for such individuals and were not designed to meet their needs.

Contemplation (Getting ready)

Contemplation is the stage in which people intend to change in the next six months. They are more aware of the pros of changing, but are also acutely aware of the cons. In a meta-analysis across 48 health risk behaviors, the pros and cons of changing were equal (Hall & Rossi, 2008). This weighting between the costs and benefits of changing can produce profound ambivalence that can cause people to remain in this stage for long periods. This phenomenon is often characterized as chronic contemplation or behavioral procrastination. Individuals in the contemplation stage are not ready for traditional action-oriented programs that expect participants to act immediately.

Preparation (Ready)

Preparation is the stage in which people intend to act in the immediate future, usually measured as the next month. Typically, they have already taken some significant action in the past year. These individuals have a plan of action, such as joining a health education class, consulting a counselor, talking to their physician, buying a self-help book, or relying on a self-change approach. These are the people who should be recruited for action-oriented programs.

Stage of Action

Action is the stage in which people have made specific overt modifications in their lifestyles within the past six months. Because action is observable, the overall process of behavior change often has been equated with action. But in TTM, action is only one of the six stages. Typically, not all modifications of behavior count as Stage of Action in this model. In most applications, people must attain a criterion that scientists and professionals agree is sufficient to reduce risk of disease. For example, reduction in the number of cigarettes or switching to low-tar and low-nicotine cigarettes were formerly considered acceptable actions. Now the consensus is clear – only total abstinence counts.

Maintenance Maintenance is the stage in which people have made specific overt modifications in their lifestyles and are working to prevent relapse. However, they do not apply change processes as frequently as do people in Action Stage. In the Maintenance Stage, people are less tempted to relapse and grow increasingly so confident that they can continue their changes. Based on self-efficacy data, researchers have estimated that Maintenance lasts from six months to about five years. While this estimate may seem pessimistic, longitudinal data in the Surgeon General's 1990 report support this temporal estimate. After 12 months of continuous abstinence, 43% of individuals returned to regular smoking. It was not until 5 years of continuous abstinence that the risk for relapse dropped to 7% (USDHHS).

Termination

Termination is the stage in which individuals are not tempted; they have 100% self-efficacy. Whether depressed, anxious, bored, lonely, angry or stressed, individuals in this stage are sure they will not return to unhealthy habits as a coping mechanism. It is as if their new behavior has become an automatic habit. Examples include adults who have developed automatic seatbelt use or who automatically take their antihypertensive medication at the same time and place each day. In a

study of former smokers and alcoholics, researchers found that less than 20% of each group had reached the criteria of zero temptation and total self-efficacy (Snow, Prochaska & Rossi, 1992). The criterion of 100% self-efficacy may be too strict or it may be that this stage is an ideal goal for population health efforts. In other areas, like exercise, consistent condom use, and weight control, the realistic goal may be a lifetime of maintenance.

Decisional Balance

Decision-making was conceptualized by Janis and Mann (1977) as a decisional “balance sheet” of comparative potential gains and losses. Two components of decisional balance—the pros and the cons— have become critical constructs in the Trans-Theoretical Model. As individuals progress through the stages of behavioral change, decisional balance shifts in critical ways. When an individual is in the Pre-Contemplation Stage, the pros in favor of behavior change are outweighed by the relative cons for change. Thus, the individuals are in favor of maintaining the existing behavior. In the Contemplation Stage, the pros and cons tend to carry equal weight, leaving the individual ambivalent toward change. If the decisional balance is tipped, however, such that the pros in favor of changing outweigh the cons for maintaining the unhealthy behavior, many individuals move to the Preparation or even Action Stage. As individuals enter the Maintenance Stage, the pros in favor of maintaining the behavior change should outweigh the cons of maintaining the change to decrease the risk of relapse.

Self-Efficacy

TTM integrates elements of Bandura (1977, 1982) self-efficacy theory. This construct reflects the degree of confidence individuals have in maintaining their desired behavior change in situations that often trigger relapse. It is also measured by the degree to which individuals feel tempted to return to their problem behavior in high-risk situations. In the Pre-contemplation and Contemplation stages, temptation to engage in the problem behavior is far greater than self-efficacy to abstain. As individuals move from Preparation to Action, the disparity between feelings of self-efficacy and temptation closes, and behavior change is attained. Relapse often occurs in situations where feelings of temptation trump individuals’ sense of self-efficacy to maintain the desired behavior change.

Processes of Change

The Processes of Change assist to explain how the changes in cognition, emotion and behavior occur from one stage to another. These processes are ten; five are experientially oriented, and five are behaviorally oriented. Some processes are more

relevant to a specific stage of change than others. These processes result in strategies that help people make and maintain change in their behavior. These are:

Cognitive and Affective Experiential Processes Consciousness Raising (Get the facts):

Consciousness raising involves increased awareness about the causes, consequences and cures for a problem behavior. Interventions that can increase awareness include feedback, interpretations, and bibliotherapy. Sedentary people, for example, may not be aware that their inactivity can have the same risk as smoking a pack of cigarettes a day.

***The How:** Learn new facts, ideas, and tips that support the healthy behavior change.*

Dramatic Relief (**Pay attention to feelings**): Dramatic relief initially produces increased emotional experiences followed by reduced effect or anticipated relief if appropriate action is taken. Interventions can fill people with fear of health risks of the old behavior, or success stories to move people emotionally to desire change of the old behavior.

***The How:** Experience negative emotions (fear, anxiety) that go along with the old behavior, and feel inspired by others who have made healthy changes.*

Environmental Re-evaluation (**Notice your effect on others**): Environmental re-evaluation combines both affective and cognitive assessments of how the presence or absence of a personal habit affects one's social environment, such as the effect of smoking on others. It can also include the awareness that one can serve as a positive or negative role model for others.

***The How:** Realize the negative impact of one's behavior and the positive impact of change on others.*

Self-re-evaluation (**Create a new self-image**): Self-re-evaluation combines both cognitive and affective assessments of one's self-image with and without an unhealthy habit, such as one's image as a couch potato versus an active person. Clarifying values, identifying healthy role-models and imagery are techniques that programs can use to move people toward self-re-evaluation. During interaction with a TTM intervention, the program might ask, "Imagine you were free from smoking. How would you feel about yourself?"

***The How:** Realize that the behavior change is an important part of one's identity.*

Social Liberation (**Notice public support**): Social liberation requires an increase in social opportunities or alternatives, especially for people who are relatively deprived or oppressed. For example, advocacy, empowerment procedures, and appropriate policies can produce increased opportunities for mental health promotion, gay health promotion, and health promotion for impoverished segments of the

population. These same procedures can also be used to help populations change. Examples of these procedures include smoke-free zones, healthy food at schools and work, and easy access to condoms and other contraceptives.

***The How:** Realize that social norms are changing to support the healthy behavior.*

Behavioral Processes

Self-Liberation (**Make a commitment**)

Self-liberation is the belief that one can change and has the commitment to act on that belief. Encouraging people to make New Year's resolutions, public testimonies, or a contract are ways of enhancing willpower. A TTM program might say, "Telling others about your commitment to take action" can strengthen the person's willpower.

***The How:** Make a firm commitment to change*

Counter Conditioning (**Use substitutes**)

Counter conditioning requires learning healthy behaviors as substitutes for problem behaviors. Examples of counter conditioning include recommendations for use of nicotine replacement as a safe substitute for smoking or walking as a healthier alternative than "comfort foods" to cope with stress.

***The How:** Substitute healthy alternative thoughts and behaviors for old cognitions and behaviors.*

Helping Relationships (**Get support**)

Helping relationships combine caring, trust, openness, acceptance and support for healthy behavior change. Rapport building, a therapeutic alliance, supportive calls, and buddy systems can be sources of social support.

***The How:** Seek and use social support to make and sustain changes.*

Reinforcement Management (**Use rewards**)

Reinforcement management provides motivation for taking steps in a positive direction. While reinforcement management can include the use of punishment, self-changers rely on reward much more than punishment. For this reason, TTM recommends that reinforcement should work in harmony with how people change naturally. Although people expect to be reinforced by others, this rarely happens; so they should be encouraged to reinforce themselves through self-statements like "Nice going—I handled that temptation." They also need to treat themselves at milestones to provide reinforcement and to increase the probability of repeated healthy responses.

***The How:** Increase the rewards for healthy behavior changes and decrease the rewards for old behaviors.*

Stimulus Control (**Manage your environment**)

Stimulus control removes cues for unhealthy habits and adds prompts for healthier alternatives. In this process, TTM programs can recommend removing all the ashtrays from the house and car, or removing high-fat foods that are tempting cues for unhealthy eating.

***The How:** Remove reminders or cues to engage in the old behavior, and use cues to engage in the new healthy behavior.*

Different strategies are most effective at different stages of behavior change. For example, counter conditioning and stimulus control can help people in the Action and Maintenance stages. But those processes are not helpful for someone who is not intending to act. Consciousness raising and dramatic relief work better for someone in that Pre-Contemplation Stage.

Limitations of Trans-Theoretical Model

There are several limitations of TTM, which should be considered when using it in public health. Limitations of the model include:

- i) The theory ignores the social context in which change occurs, such as socio-economic status (SES) and income.
- ii) The lines between the stages can be arbitrary with no set criteria of how to determine a person's stage of change. The questionnaires that have been developed to assign a person to a stage of change are not always standardized or validated.
- iii) There is no clear sense of how much time is needed for each stage, or how long a person can remain in a stage.
- iv) The model assumes that individuals make coherent and logical plans in their decision-making process when this is not always true.

Further Reading

<https://www.prochange.com/transtheoretical-model-of-behavior-change>

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Prochaska, J.O., Butterworth, S., Redding, C.A., Burden, V., Perrin, N., Lea, Michael, Flaherty, Robb M., and Prochaska, J.M. (2008). Initial Efficacy of MI, TTM Tailoring, and HRI's in Multiple Behaviors for Employee Health Promotion. *Preventive Medicine*, 46, 226-231. Abstract.

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- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes* 50, 179-211.
- Armitage, C. and Conner, M. (2001). Efficacy of the Theory of Planned Behavior: A Meta Analytic Review. *British Journal of Social Psychology* 40, 471-499.
- Bandura, A. (1991). Social Cognitive Theory of Self-regulation. *Organizational Behavior and Human Decision Processes* 50(2): 248-287.
- Bandura, A. (1977). Self-efficacy: Toward a Unifying Theory of Behavioral Change. *Psychological Review* 84: 191–215.

SESSION 3: Behavior Change Communication


Session Overview





This session deals with behavior change communication and models of individual behavior change. Researchers suggest that personal behavior causes more than 50% of illnesses. Therefore, one’s behavior influences one’s health. Many people can improve their health by managing their chronic conditions or engaging in health promotion behavior. Illustrations of different models of behavior change, change management models and behavior change communication techniques that are relevant to One Health will be dealt with in this session.

Learning Objectives

- By the end of this session, participants should be able to:
- i) illustrate and adapt the different models of behavior change for One Health.
 - ii) research different change management models in relation to One Health.

Detailed Facilitator Notes

Duration	Topic	Activity Type	Facilitator Instructions
60 min			Registration <ul style="list-style-type: none">i) Let participants sign the OHCEA attendance register.ii) Explain logistics (e.g. breaks, meals, etc.)

60 min		 	<p>iii) Start this session by having participants discuss the hand-wash tippy tap in the picture below:</p> <p>iv) In examining this picture, discuss the following questions:</p> <ol style="list-style-type: none"> 1. What would be needed to launch this hand washing behavior change? 2. Who would be the target audience? 3. What are the outputs? 4. What is the intended outcome? <p>Group Discussion: Tippy Tap—the Latest Innovation</p>  <p>http://hetv.org/programmes/hand-washing.htm</p>
	Know your Audience		<p>Know your Audience</p> <p>i) Inform participants that it is very important to know your audience and to understand their values. If you don't know who your audience is or what they care about, you can't reach them effectively.</p> <p>Understanding and using the</p>

appropriate value mode helps to ensure that your message is in a language that your audience understands.


ii) Provide participants with the example below:




iii) If you know your audience consists of people of one value mode, then it is easy to choose, but most often you must tailor your messages to 3 value modes. (Remember we discussed value modes previously— prospectors, pioneers and settlers.)


iv) So, if you are talking about climate change, you could say that it is important to act to prevent climate change because it helps:



- preserve the planet for our grandchildren – an idea that will resonate with settlers.
- your company to meet its CSR goals, which will make your boss happy and impress the CEO – which Prospectors will find compelling and
- to know that it is the right thing to

			<p>do for the planet and the people and organisms that live on it. Acknowledging the intrinsic value of the earth will appeal to pioneers.</p> <p>v) Divide participants into three groups representing the different value modes.</p> <p>vi) Present to each group a sheet with an activity for group discussion and ask participants to present to plenary the responses to the questions.</p>
	Communicati on Theory of Change		<p>Communication Theory of Change In the next 30 minutes, introduce and discuss communication theory of change (ToC) using a PowerPoint presentation (PPP No. 4) on communication theory of change.</p>
			<p>Introduce participants to the movie that they now watch https://www.youtube.com/watch?v=Hq-URI9F17Y with the following statements: This is Michelle Obama’s “Evolution of Mom Dancing with Jim Fallon” a late night comedian who is very popular in the US. More than 50 million people have watched the video The movie was part of Michelle Obama’s LET’S MOVE campaign aimed to address obesity among children in the US. Almost a third of children in the United States are overweight. Her <u>goal</u> was to reduce the child obesity rate to 5% by 2030. She launched a massive campaign in the US to do that. One of them was through late night shows to get mothers to move with their children.</p>

			<div data-bbox="802 256 1396 747" data-label="Diagram"> <p>The diagram is titled "Communications Theory of Change". It consists of five rectangular boxes arranged horizontally, connected by arrows pointing from left to right. The boxes contain the following text: <ul style="list-style-type: none"> Box 1: WHO (COMMUNICATOR) Box 2: SAYS WHAT (MESSAGE) Box 3: IN WHICH CHANNEL (MEDIUM) Box 4: TO WHOM (RECEIVER) Box 5: WITH WHAT EFFECT? (EFFECT) </p> </div> <p>Let's Move outcomes</p> <ul style="list-style-type: none"> i) Improved awareness of nutrition ii) Partnerships with athletic organizations, celebrities, and community groups that spread the <i>Let's Move!</i> message iii) 5,000+ schools now meeting high standards for nutrition and fitness iv) Through partnership with the Olympic Committee, in 2012, 1.7 million children had access to low-cost athletics v) Institutional policy changes <p>Questions for discussion</p> <ol style="list-style-type: none"> 1. Why do you think it was so successful? 2. Can you recognize the impact of identifying gender roles in any theory of change activity?
	<p>Risk communication</p>		<p>Group Activity: Risk Communication</p> <ul style="list-style-type: none"> i) Let participants watch the following commercial: https://www.youtube.com/watch?v=UAYDinDY950 ii) After watching the commercial, ask

			<p>the following questions:</p> <ol style="list-style-type: none"> 1. In an emergency, how do you communicate to the public? 2. Is the communication in the commercial effective? How?
60 min			<p>i) Divide participants into 4 groups and present each group with a scenario as follows:</p> <p>Group 1: Anthrax: One animal has tested positive for anthrax in your community but no other animals have in the last one year.</p> <p>Group 2: Brucellosis: Unboiled milk is being provided to school children at one local school in the rural area.</p> <p>Group 3: Ebola: An Ebola vaccine has just been developed</p> <p>Group 4: Avian Influenza: One poultry trader who is normally at the market place has died. The cause of death is suspected to be Avian Influenza.</p> <p>ii) Tell participants that based on the ToC discussed earlier, they are required to use the provided scenario to develop a relevant message for the scenario.</p> <p>iii) Ask participants to think about the following:</p> <ol style="list-style-type: none"> 1. What is the risk? 2. What does the public need to be aware of? 3. What message are you passing on? How? 4. Who is your target audience? 5. Do you need to consider the gender of your audience? <p>iv) Tell them to take 10 minutes to</p>

			<p>prepare a message and 2 minutes to present to the plenary.</p> <p>v) Discuss with participants the different messages and ask them the following questions:</p> <ol style="list-style-type: none"> 1. Were the messages clear? 2. Were there any gaps? 3. What needs improvement?
15 min			<p>Attribution Theories</p> <p>i) Give a ten-minute PowerPoint presentation (PPP No. 5) on attribution theories.</p> <p>ii) We know that a person's beliefs, values and attitudes play a large role in determining which behaviors they will choose in each situation. Some other things that impact behavior include:</p> <ul style="list-style-type: none"> • Internal motives (intrinsic values) • External motives (rewards and punishments) • Interactionist perspective: An emphasis on how both an individual's personality and environmental characteristics influence behavior. • Their interpretation of situations. People in general tend to ask "why?" when they confront important events that are negative or unexpected (Hastie, 1984; Weiner, 1985). <p>iii) And to make sense of our social world, we try to understand the causes of other people's behavior.</p> <p>iv) If you ask people to explain why their fellow human beings behave as they do – why they succeed or fail, laugh or cry, work or play, or help or hurt others – you will see that they</p>

			<p>come up with complex explanations often focused on whether the behavior is intentional or unintentional (Malle et al., 2000).</p>
60 min		 	<p>Models of Individual Behavior Change.</p> <ol style="list-style-type: none"> i) Do a PowerPoint presentation (PPP No. 6) on models of individual behavior change. ii) Behavior change may be utilized to improve or maintain good health at individual or community level. Everyone should identify what is most important to him or her that poses the most immediate threat to health. The following are examples of the common areas that may be utilized in One Health: <ul style="list-style-type: none"> • Diet, relationships, stress management, drug/alcohol use, exercise, use of tobacco, sexual behaviors, mental health issues, systemic barriers, access to health care, poverty, environmental factors <p>Group Activity 1: Group Discussion</p> <ol style="list-style-type: none"> i) Divide participants into three groups. ii) Give each group a piece of flip chart paper and markers. Assign them three topics to discuss. <ul style="list-style-type: none"> - Common areas that may be utilized in One Health at individual level. - Common areas that may be utilized in One Health at community level. - Gender factors that influence behavioral change at community and individual level.

20 min

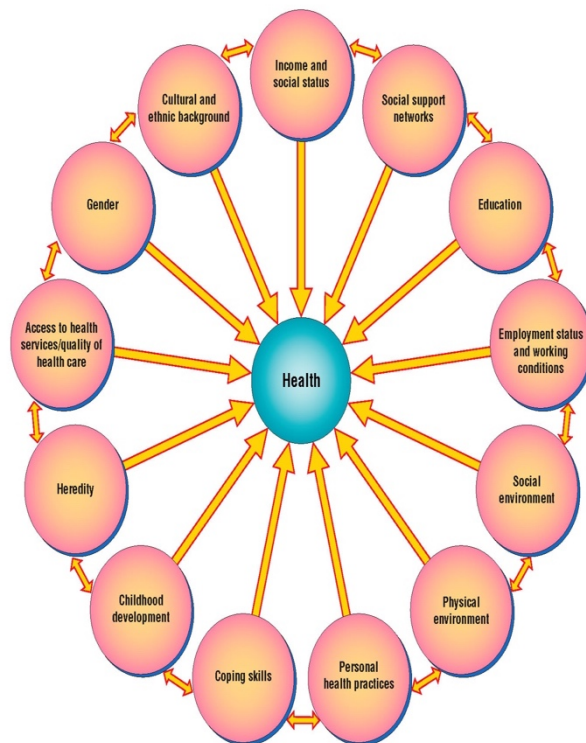


Individual Activity: Desktop Review of Behavior Change Management Models


There are numerous determinants of health that include: gender, hereditary, cultural and ethnic factors, all shown in Figure 5 below. Ask participants to:

1. Select any five factors in the figure and conduct a literature review on them.
2. Discuss the important behavioral changes that are applicable to any two of the factors selected.
3. As a take home assignment, prepare a presentation of not more than ten slides which they shall present the following day.

Figure 5: Determinants of Health



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15 min			<p>Concluding Comments</p> <p>Designing and implementing programs that enable people to achieve sustainable behavior change is hard. Behavior change programs can succeed only if their design paradigm is rethought. The program should focus on emerging approach; a person-focused paradigm that uses a behaviorally based rather than disease-based orientation to drive sustainable behavior change. Instead of ‘if individuals are fully rational’, it recognizes that human decision-making is affected by systematic cognitive biases, habits, and social norms. Changing individual behavior is increasingly at the heart of health care. Across the globe, a fundamental shift in health care risk is taking place, driven by an aging population and the increasing incidence of behaviorally induced chronic conditions. Health systems are innovating on the delivery side to meet this challenge through a growing emphasis on risk communication, primary care, integrated care models, and pay-for-value reimbursement. Behaviorally based incentives should be used to encourage change.</p>
			<p>i) Create the flipchart shown below. ii) Ask the class: “How did it go today?” iii) Ask them to answer the question by drawing one of the faces below to represent their answer and adding comments that they would like to bring to your attention.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>How did it go today?</p> <p>☺☹☹</p> <p><i>Comments:</i></p> </div>

SESSION 4: Behavior Change: Barriers and Strategies



Session Overview


This session focuses on barriers to behavior change. Behavior change is not easy considering the fact that it takes place in a complex environment, dealing with a multifaceted problem with individual, social, historical and cultural influences. The session will emphasize that learning new complex patterns of behavior requires modifying multiple disaggregated behaviors that form the overall complex behavior. In addition, participants will be able to learn that to overcome this barrier to behavior change, there is need for reinforcing desired behaviors through rewards.

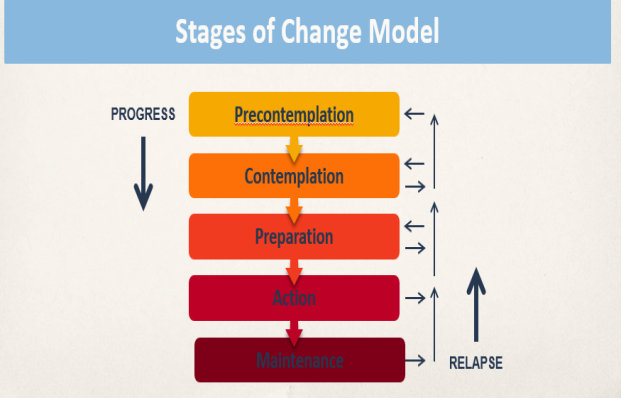


Learning Outcomes

By the end of this session, the participants should be able to:


- i) assess the influence of culture, beliefs and values on behavior change.
- ii) illustrate different models of behavior change and adapt the models for One Health.


Duration	Topic	Activity Type	Facilitator Instructions
5 min			Welcome and Recap <ol style="list-style-type: none">i) Give your welcome remarks and introduction for the day.ii) Facilitate a recap on the previous session.
60 min	Introduction to Community Based Social Marketing		Introduction to Community Based Social Marketing <ol style="list-style-type: none">i) Introduce to participants the community based social marketing as a way of changing behavior using a PowerPoint presentation (PPP No. 7).ii) Let participants know that they can


			<p>read more about it on the following website: http://www.cbsm.com/public/world.lasso</p>
10 min	<p>Steps that can lead to effective behavior change</p> <p>1. Select behaviors</p>		<p>Group Activity for Step 1: Selecting Behaviors</p> <p>i) Divide participants into 4 groups</p> <p>ii) Ask each group to:</p> <ul style="list-style-type: none"> • Choose a One Health-related issue (zoonotic diseases, infectious disease threats, AMR disease threats) for which participants want to change the behavior. • List all the possible behaviors in the selected issue that need to be changed <p>iii) From the list, select the behavior that you want to change based on the following:</p> <ul style="list-style-type: none"> • how impactful the behavior is. • how probable it is that your target audience will engage in the behavior. • what level of penetration has the behavior already obtained with the target audience. <p>iv) Ask them to respond to the following questions:</p> <ol style="list-style-type: none"> 1. What problem do you want to solve? 2. What behavior change is needed? 3. Whose behavior needs to change? (be gender sensitive) <p>v) Remind participants about the Stages of Behavior Change (TTM Model) using the following Figure:</p>

			
	<p>(ii) Identify barriers and benefits</p>	 	<p>Introduce to participants step 2 of the community based social marketing as a way of changing behavior using the Facilitator notes/ PowerPoint presentation (PPP No. 7).</p> <p>Group Activity for Step 2: Identifying Barriers and Benefits</p> <ul style="list-style-type: none"> i) With your selected behavior under (Step 1 – the One Health- related Issue), identify: <ul style="list-style-type: none"> 1. What barriers do you think your audience might face in changing their behavior? 2. What benefits might they experience? ii) Emphasize to participants to remember that the benefits are for the individual and not the world.
	<p>(iii) Develop strategy</p>		<p>Step 3: Develop Strategy</p> <ul style="list-style-type: none"> i) Introduce to participants step 3 of the community based social marketing as a way of changing behavior using the Facilitator notes/ and PowerPoint presentation (PPP No. 7). <p>Applying Social Norms</p> <ul style="list-style-type: none"> ii) Let participants help to define what social norms are by asking:

			<p>Does anyone know what social norms are?</p> <p><i>Social norms are general rules of conduct that reflect standards of social approval or disapproval—what is socially acceptable.</i></p> <p>iii) Ask participants if they think research supports or refutes the following claim. “Most people claim that they are not persuaded by what others do.”</p> <p>iv) Observe that experiments refute that claim and demonstrate that people are, in fact, influenced by what others do, or what is socially acceptable to do. Thus, normative messaging can be very effective.</p> <p>v) There are different types of norms:</p> <ul style="list-style-type: none"> • Descriptive norms – describe what people do. • Injunctive norms – describe what people approve or disapprove of. <p>vi) Observe that there is need for a combination of norms to obtain the most effect (you want to indicate that an action which is sustainable is what everyone does and unsustainable actions are not acceptable or approved of).</p> <p>vii) Provide the following example of how normative messaging works:</p> <p><i>A hotel did an experiment to get people to reuse towels. They put 3 different messages on cards as below:</i></p> <ul style="list-style-type: none"> • Environmental protection: Help save the environment by reusing your towels. • Cooperation: Join with our efforts to protect the environment and reuse your towels. • Norm: 75% of guests who are
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			<p>asked to participate in a new resource saving program reuse their towels. Join our guests in helping to save the environment.</p> <p>viii) Ask participants to indicate which message they think was the most effective in getting people to reuse their towels and reasons why they think so.</p> <p>ix) Sum up the discussion by indicating that the first and second messages that focused respectively on protecting the environment and cooperation both got just above one-third of guests to participate. The 3rd message, however, that employed descriptive norms, increased participation to nearly 50%.</p> <p>x) Show participants the picture below:</p>  <p>xi) Ask them if they think the above</p>
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			<p>message is descriptive and give reasons for their answer.</p> <p>xii) In pairs, let participants come up with other examples of social norms they know and how impactful they have been. Choose a few pairs to share their examples with all participants.</p> <p>Picking the Right Strategy Show participants the chart below which helps lay out the various tools and strategies that they have discussed and the corresponding barriers the strategies can help to overcome. Talk about picking the right strategy using the facilitator notes at the end of the session.</p> <div data-bbox="898 905 1437 1436" style="border: 1px solid #ccc; padding: 10px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">Picking the Right Strategies</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #f4a460;"> <th style="padding: 5px;">BARRIERS</th> <th style="padding: 5px;">TOOLS</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px; text-align: center;">Lack of Motivation</td> <td style="padding: 5px; text-align: center;">Commitments Norms Incentives</td> </tr> <tr> <td style="padding: 5px; text-align: center;">Forget to Act</td> <td style="padding: 5px; text-align: center;">Prompts</td> </tr> <tr> <td style="padding: 5px; text-align: center;">Lack of Social Pressure</td> <td style="padding: 5px; text-align: center;">Norms</td> </tr> <tr> <td style="padding: 5px; text-align: center;">Lack of Knowledge</td> <td style="padding: 5px; text-align: center;">Social Diffusion</td> </tr> <tr> <td style="padding: 5px; text-align: center;">Structural Barriers</td> <td style="padding: 5px; text-align: center;">Convenience</td> </tr> </tbody> </table> </div> <p>Group Activity Let participants complete developing their strategy from the previous exercise based on what they have learnt.</p>	BARRIERS	TOOLS	Lack of Motivation	Commitments Norms Incentives	Forget to Act	Prompts	Lack of Social Pressure	Norms	Lack of Knowledge	Social Diffusion	Structural Barriers	Convenience
BARRIERS	TOOLS														
Lack of Motivation	Commitments Norms Incentives														
Forget to Act	Prompts														
Lack of Social Pressure	Norms														
Lack of Knowledge	Social Diffusion														
Structural Barriers	Convenience														
	<p>(iv) Pilot strategy (v) Implement broadly and evaluate</p>		<p>Introduce to participants step 3 of the community based social marketing as a way of changing behavior using the Facilitator notes/ using a PowerPoint presentation (PPP No. 7).</p>												

			<p>Step 4 & 5: Pilot Strategy and Implement to a Broader Audience</p> <ul style="list-style-type: none"> i) Give participants 30 minutes to finalize their behavior change strategy and then present their message to the rest of the group. ii) Discuss the problems and challenges they had in developing their behavior change messages. iii) Complete this session by watching the video: “Danger of a single story” Chimamanda Ngozi Adichie, TEDGlobal 2009, Filmed June 2009 https://www.youtube.com/watch?v=D9Ihs241zeg iv) Brainstorming this story can be applied to all that participants have learnt about behavior change.
30 minutes	Conclusion		<p>Concluding Comments</p> <p>Conclude with the following comments: The One Health approach may require behavioral changes in many aspects but there are several barriers to behavior change. Overcoming the barriers to behavior change is a difficult task considering the complex environment, dealing with a multifaceted problem with individual, social, historical and cultural influences on behavior and health. Theories emphasize that learning new complex patterns of behavior requires modifying multiple disaggregated behaviors that form the overall complex behavior. Resistance to change strategies must deal with both decreasing barriers and increasing benefits. Caveats of behavior modification principles rewards are culturally-determined. Praise from models, mentors, elders, etc. may be</p>

			<p>culturally more rewarding. Modeling by respected figures, mentors, elders, etc. is more effective.</p> <p>There is need to deal with gender-related issues requiring different strategies and present with different risk situations. With complex and numerous undesirable behaviors, decision-making is difficult.</p> <p>End of Day Evaluation</p> <ul style="list-style-type: none"> <i>i)</i> Create the flip chart shown below. <i>ii)</i> Ask the class: “How did it go today?” <i>iii)</i> Ask them to answer the question by drawing one of the faces below to represent their answer and adding comments that they would like to bring to your attention. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>How did it go today?</p> <p>☺☹☹</p> <p><i>Comments:</i></p> </div>
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Facilitator's Notes for Session 4

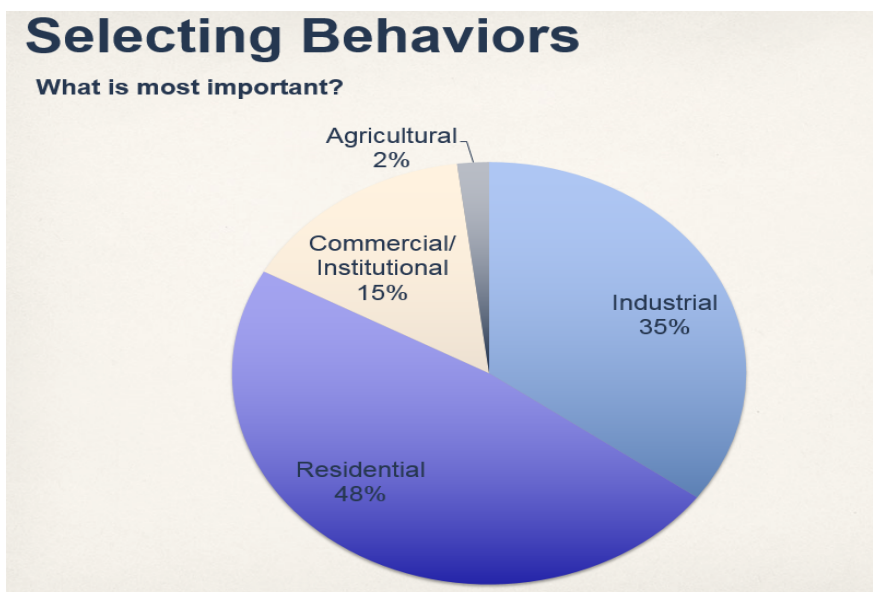
Community-Based Social Marketing

Community-Based Social Marketing (CBSM) combines knowledge from psychology with that from social marketing. It emphasizes understanding the barriers that exist within a community to the behavioral changes that are being advocated. Furthermore, it stresses the importance of the “social” aspects of the behaviors we adopt, such as interpersonal communication, social diffusion and social norms. CBSM consists of five steps that, when done thoughtfully, can lead to effective behavior change.



Step 1: Selecting Behaviors

The first step is to select the behavior. This seems simple but most people will skip straight to step 3 – and select a strategy first (e.g. ask women to boil milk to prevent brucellosis).



Why might we want to step back and spend some more time thinking about exactly what behavior we want to change? First, you want to choose behaviors that are non-divisible. A divisible behavior is one that can be further broken down into smaller actions. For example, “live a healthier lifestyle” is a divisible behavior. The reason why this behavior is divisible is because it can be broken down further into a series of smaller actions or behaviors—things like getting 8 hours of sleep each night or eating 5 servings of fruit and vegetables each day.

When trying to bring about change, we want to target behaviors that are non-divisible, or cannot be broken down into any smaller actions. The reason is that each of these smaller actions have their own associated barriers.

A behavior should also be end-state. End-state means that the behavior itself produces the desired outcome. For example, what do you think about joining the gym? Does it directly produce the outcome of helping you get in shape?

Joining the gym is not end-state because you do not reap any health benefits from simply having a gym membership. You get the desired health outcome from going to the gym. So, a behavior like “go to the gym 5 times a week is end-state.

And finally, a behavior should be framed as a positive. In other words, the behavior you select should be what you WANT people to do, not what you don’t want them to do. Looking at these two examples – which one is framed as a positive, and thus the one we want to choose?



Step 2: Uncovering Barriers and Benefits

Uncovering Barriers & Benefits



There are four main methods of uncovering barriers and benefits. These are literature search, observations, focus groups and surveys.

Each of these methods have inherent strengths and weaknesses. For example, focus groups provide you with detailed information about barriers and benefits, but are limited in generalizability. Consequently, we usually want to pair together different methods so that the weaknesses of one are compensated by the strengths of another (e.g. surveys have better generalizability).

It is easy to assume that we know what drives people or what they would see as barriers and benefits, but we cannot uncover actual barriers or benefits unless we investigate. This is an absolutely crucial step because if we design strategies to address the wrong sets of barriers and benefits, our programs won't be effective and we won't see the desired results.

Let us take the example of transportation and its effect on the environment. For someone who drives, what might be some of the barriers to switching to more sustainable alternatives?

- i) **Insufficient knowledge** (you do not know that driving has negative impacts on the environment)
- ii) **Institutional factors** (poor infrastructure, no public transportation available where you live)
- iii) **Socio-cultural factors** (you know driving is bad, but most people drive, so it's socially acceptable)
- iv) **Motivation** (you value environment, but also your time – you drive because it takes less time in many cases → value of time > value of environment)
- v) **Emotional involvement** (when you see the direct consequences of your actions, like pollution, you are more apt to change) → in your office, focus on protecting the bird outside your window/making your office a healthy place to work, not on saving the polar bears.

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- vi) **Locus of control** (if you feel like stopping to drive, you will not fix anything; you are less likely to change) → focus on what you can do, not what you cannot.

Ideal programs or initiatives are those that both decrease barriers while increasing benefits.

Step 3: Developing Strategy

Once you have identified the desired behavior and its barriers and benefits, you can develop appropriate strategies to help decrease barriers and increase benefits. There are many different tools or strategies we can consider.

- i) **Convenience** – Intuitive that people are more likely to engage in an action if it is convenient. So, whenever possible, we should make our chosen action the default that is easy (e.g. default double-sided printing).
- ii) **Commitments** – For example, pledges are great change catalysts because people are more likely to follow up something if they have made their intentions known, and are more likely to commit to something larger if they have already committed to something small.
- iii) **Voluntary, written and public** – To be most effective, they must be voluntary, written, and public (print in newspaper, post online, etc.). People like to be self-consistent, but if they feel they have been coerced or it is not genuinely their choice, they are less likely to feel like it is a commitment that they made.
- iv) **Social Diffusion** – People change behaviors based on what their friends and people they have personal relationships and direct interaction with do. Personal conversations and direct face-to-face interactions play a pivotal role in helping a behavior become widely adopted or diffused across a population. (One of your friends recommends that you try a product or activity.)
- v) **Prompts** – Reminders or signs that help people remember to take an appropriate behavior (light switch stickers, etc.). They should be placed where the decision to act takes place (e.g. light switch prompt on or directly next to light switch). Prompts can be integral in helping people develop sustainable habits and routines, which are key in maintaining long-term change. It is important to note that prompts do not change motivation, they just help us remember to do things we are already doing. (So they should be used for actions that someone is already inclined to take, but just cannot remember to do.)
- vi) **Incentives** – Giving people the extra push they might need to undertake an action. For long-lasting behavior change, the drive for behavior change should not be the incentive or prize given, rather the drive for recognition or self-motivation. This is like signing up for a charity race to motivate yourself

to start running – you might win, but it is just an incentive. Therefore, incentives do not necessarily have to be monetary or something material. They can be recognitions or awards.

Picking the Right Strategy

Additional factors and considerations when developing strategies

Create strategies that address resistance to change, using a framework called Alpha and Omega Strategies.

- Alpha strategies deal with resistance by overwhelming it. When a person is ambivalent, the Alpha approach is to overpower the resistance with rhetoric (describing the benefits) or incentives (adding benefits). The problem is that Alpha approach, even when it is successful in persuading a person, it does not diminish the underlying concerns and apprehensions that a person had; and does not necessarily create a situation that is conducive to long-term change because it does not get at the underlying issues.
 - Omega strategies, on the other hand, deal with resistance to change directly by finding ways to reduce or remove it to reveal benefits. Resistance comes in 3 main forms, and we can use different tactics or strategies to deal with each.
 - i) Reactance – Resistance to persuasion (people do not want to feel that they are being forced to change). Depersonalize the interaction e.g. by using a story/anecdote to make the request less personal. The message will still get through.
 - ii) Skeptical of message – Can provide guarantees, reframe.
Example: Change comparison (instead of saying "we are currently at 2% and should be at 48%" say, "Yale's goal is 50% and ours should be 48%").
 - iii) Inertia – People are usually set in their specific ways and are reluctant to change. Disrupt and reframe to get attention and interrupt the mental 'refusal script'.
Example: "Typically there will be a collection center in less than 46,297 inches from your house – that is less than a quarter mile. It is convenient." The large number (46,297) disrupts their stream of consciousness because it is so unusual. The statement that "It is convenient" reframes the change as convenient.
 - Resistance to change strategies must deal with both decreasing barriers and increasing benefits, not just one. You cannot just focus on benefits (like alpha strategies) without addressing the barriers or resistance.
 - Be cognizant that people do not like to have freedoms removed, which is why they often resist change. If we want to take something away (or increase its scarcity), we need to provide an alternative that is more prevalent, readily available or accessible.
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- If you want to move people from one option (e.g. do not cut trees for firewood), first give people a readily available alternative (use gas stoves). This will help reduce the barrier to change by using a positive message by focusing on what people SHOULD do as opposed to what people should not do.
 - Liking principle – People are more apt to commit to something if they like the person who is asking. Be a friendly messenger in your office.
 - Good communication makes all the difference, and therefore:
 - i) frame your message attractively using captivating information that is relatable and credible.
 - ii) avoid threatening messages that can cause reluctance to change and/or helplessness. Make sure that you pair messages with concrete actions that encourage people to undertake the desired behavior.
 - iii) Make messages visible and easy to remember. Use a variety of communications vehicles. For example, prompts and clear/specific information, provide personal or office-wide goals, hold events to foster communication.

Sample of Training Schedule

Session 1

Schedule	Topic/Activity	Learning Activity	Materials
8:00 - 9:00	Registration		<ul style="list-style-type: none"> • Sign-in sheet
9:00 - 10:00	Introduction: <ul style="list-style-type: none"> • Agenda • Goals • Expectations • Guest speaker • Pre-test 	Presentations	<ul style="list-style-type: none"> • PowerPoint • Sticky notes (2 colors) • Flipcharts • Markers • Tape • Pre-Test
10:00 - 10:15	Tea Break		
10:15 - 1:00	What is One Health, behavior and value models? How does gender impact behavior?	Small Group Activity	<ul style="list-style-type: none"> • Flipcharts • Markers
1:00 - 2:00	Lunch		
2:00 - 3:30	Behavior change	Small Group Activity	<ul style="list-style-type: none"> • Flipcharts • Markers
3:30 - 3:45	Tea Break		
3:45 - 4:30	Theories of behavior change	Interactive Presentation	<ul style="list-style-type: none"> • PowerPoint
4:30 - 4:45	Evaluation of the day	Plenary	<ul style="list-style-type: none"> • Flip charts

Session 2

Schedule	Topic/Activity	Learning Activity	Materials
8:00 - 9:00	Registration		<ul style="list-style-type: none"> • Sign-in sheet
9:00 - 10:00	Stages of Behavior Change	Presentations	<ul style="list-style-type: none"> • PowerPoint • Sticky notes

			(2 colors)
10:00 - 10:15	Tea Break		
10:15 - 1:00	Stages of Behavior Change Continued: Case Study	Small Group Activity	<ul style="list-style-type: none"> • Flip charts & Markers
1:00 - 2:00	Lunch		
2:00 - 3:30	Factors that Influence Behavior Change	Small Group Activity	<ul style="list-style-type: none"> • Flip charts & Markers
3:30 - 3:45	Tea Break		
3:45 - 4:30	Change Management	Interactive Presentation	<ul style="list-style-type: none"> • PowerPoint
4:30 - 4:45	Evaluation of the Day	Plenary	<ul style="list-style-type: none"> • Flipchart

Session 3

Schedule	Topic/Activity	Learning Activity	Materials
8:00 - 9:00	Registration		<ul style="list-style-type: none"> • Sign-in sheet
9:00 - 10:00	The Tippy Tap Discussion	Presentations	
10:00 - 10:15	Tea Break		
10:15 - 11:00	Communication: Knowing your Audience and Gender Impact	Small Group Activity	<ul style="list-style-type: none"> • Flip charts & Markers
11:00-1:00	Communication Theory of Change		
1:00 - 2:00	Lunch		
2:00 - 3:30	Risk Communication	Small Group Activity	<ul style="list-style-type: none"> • Flip charts & Markers
3:30 - 3:45	Tea Break		
3:45 - 4:30	Attribution Theories and Change Management	Interactive Presentation	<ul style="list-style-type: none"> • PowerPoint

4:30 - 4:45	Evaluation of the Day	Plenary	• Flip chart
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Session 4

Schedule	Topic/Activity	Learning Activity	Materials
8:00 - 9:00	Registration		• Sign-in sheet
9:00 - 10:00	Introduction to Community Based Social Marketing	Discussions Videos Role-plays	• PowerPoint
10:00 - 10:15	Tea Break		
10:15 - 11:00	Selecting Behaviors	Small Group Activity	• Flipcharts & Markers
11.00-1.00	Identifying Barriers and Benefits		
1:00 - 2:00	Lunch		
2:00 - 3:30	Developing Strategies	Small Group Activity	• Flipcharts & Markers
3:30 - 3:45	Tea Break		
3:45 - 4:30	Applying Social Norms and Danger of a Single Story	• Interactive discussions • Videos • Presentations	• PowerPoint
4:30 - 4:45	Evaluation of the Day	Plenary	• Flipchart

OHCEA EVENT EVALUATION - One Health Behaviour Change Short Course

Facilitators: _____

Dates: _____

OHCEA supported you to attend the **One Health Behavior Change Short Course** event. Please take a few minutes to fill out the following confidential questionnaire. Your responses will help us better understand the value of this event and improve future programs. Thank you!

Please circle your response to each of the following.

<p>1. This event met my expectations.</p> <ul style="list-style-type: none"> a) Strongly disagree b) Disagree c) Agree d) Strongly agree e) Don't know 	<p>6. This event helped clarify my understanding of "One Health."</p> <ul style="list-style-type: none"> a) Strongly disagree b) Disagree c) Agree d) Strongly agree e) Don't know
<p>2. This event was relevant to my personal interests.</p> <ul style="list-style-type: none"> a) Strongly disagree b) Disagree c) Agree d) Strongly agree e) Don't know 	<p>7. The pre-event logistics were well organized.</p> <ul style="list-style-type: none"> a) Strongly disagree b) Disagree c) Agree d) Strongly agree e) Don't know
<p>3. This event was relevant to my professional interests.</p> <ul style="list-style-type: none"> a) Strongly disagree b) Disagree c) Agree d) Strongly agree e) Don't know 	<p>8. The event itself was well organized.</p> <ul style="list-style-type: none"> a) Strongly disagree b) Disagree c) Agree d) Strongly agree e) Don't know
<p>4. The information presented was new to me.</p> <ul style="list-style-type: none"> a) Strongly disagree b) Disagree c) Agree d) Strongly agree 	<p>9. Overall, I found this event to be worthwhile.</p> <ul style="list-style-type: none"> a) Strongly disagree b) Disagree c) Agree d) Strongly agree

e) Don't know	e) Don't know
5. The amount of information provided was: a) Not enough b) About right c) Too much	10. I intend to take actions in my work as a result of what I learned at this event. a) Strongly disagree b) Disagree c) Agree d) Strongly agree e) Don't know

11. Describe what, if any, actions you will take in your work as a result of this event.

12. What were the strengths of this event?

13. What can be done to improve this event?

14. What single most important lesson did you learn from this event?

15. Please write any additional comments you may have about this event.

16. Did you present at this event?

- a) Yes
- b) No

16a. If yes, what was the topic of your presentation?

17. What is your *primary* area of work?

- a) Nursing
- b) Human Medicine
- c) Veterinary Medicine
- d) Wildlife Medicine
- e) Public Human Health
- f) Public Veterinary Health
- g) Other (please specify): _____

18. Which sector do you represent?

- a) Government
- b) Private sector
- c) Education
- d) Non-governmental organization (NGO)
- e) Research
- f) Other (please specify): _____

19. What is your sex?

- a) Male
- b) Female

20. Nationality: _____