

A Dispensing Center Game



Office of Public Health Preparedness and Emergency Response

- Christine Kosmos, Deputy Commissioner
- Suzet McKinney, Director of Planning, Research and Development
- Theresa Browley, Director of Training

Center for the Advancement of Distance Education (CADE)

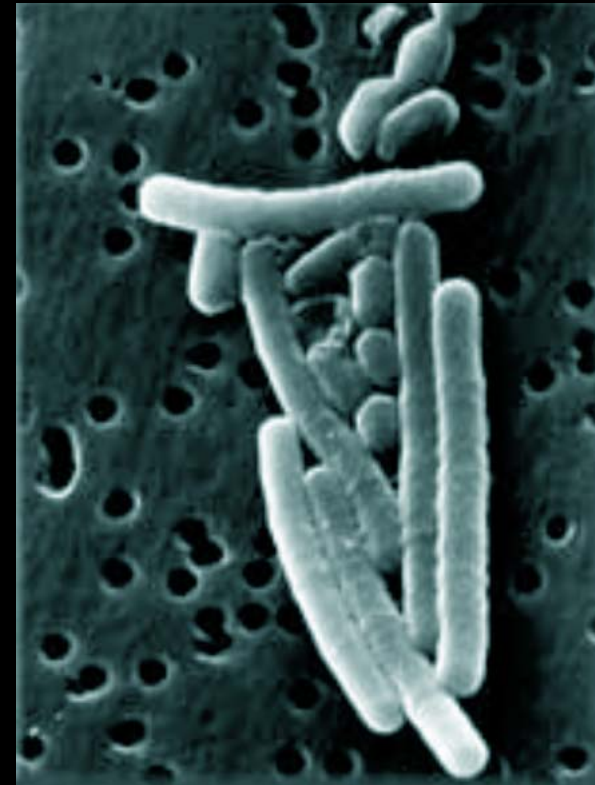
University of Illinois at Chicago, School of Public Health

- Kevin Harvey, Assistant Director

Chicago Department of Public Health

The Danger

- Bioterrorism Attack
 - Smallpox
 - **Anthrax**
- Outbreaks
 - Pandemic Flu
 - The Plague
- Natural Disasters



Chicago Department of Public Health

The Challenge

- Develop an online simulation of a DVC and record worker performance
- The game must play on department computers (not gaming computers)
- Chicago Department of Public Health (CDPH)
 - Population: 2.9 Million
 - 20 ~ 50,000 need training in a DVC.

Chicago Department of Public Health

2.9 Million People
48 Hours
19 Thousand Workers

Chicago Department of Public Health



The critical determinant of mortality following anthrax bioterrorism is local dispensing capacity.*

*Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science.

<http://www.liebertonline.com/doi/abs/10.1089/bsp.2006.4.244?journalCode=bsp>

Chicago Department of Public Health

Previous Solutions

Paper Drills (Table-Top)

Live Exercises and Drills



Chicago Department of Public Health

Why a Game?



High Level of Engagement

High Level of Retention

Easily Distributable

Easily Update-able

Tracks Compliance and
Competency (LMS)

Ability to generate reports


Appropriate to the Audience

Chicago Department of Public Health

Login Screen

← **BACK TO LOGIN**

A small airplane has released Anthrax over the city of Chicago. DVCs are being set up to treat all citizens. You are about to be transported into the middle of a drug dispensing center with all the distractions of a frightened and confused public. Stay calm and focused as you get as many people through the center as possible.

 ▾
Screen citizens as they enter the dispensing center.

If this is your first time playing, it is recommended that you complete the training module.

If you are already familiar with the game, click 'Begin Game'.

TRAINING MODULE **BEGIN GAME**

This game was supported by Cooperative Agreement Number U90/CCU524258-03 from CDC to the Chicago Department of Public Health. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC. This game was developed by the University of Illinois at Chicago School of Public Health Center for the Advancement of Distance Education (CADE).

Chicago Department of Public Health

Challenge

RATE 1200
(PEOPLE / HOUR)

TIME LEFT
14:13:11

Player 1
Medical Screener

QUIT

I think I'm in the wrong line.
I'm confused. Can you help me?

When did you get into line?

Would you like a face mask?

Do you want me to call my supervisor?

You are in the correct line. Let me ask you a few questions.

Ask Standard Questions

Are you feeling ill today? **NO**

Is anyone in your immediate family feeling ill? **NO**

Were you at the infection site? **NO**

Send to Forms Reviewer **Send to Medical Eval**

CALL FOR HELP

Captain **CALL**

Chicago Department of Public Health

Communication

RATE 1200 (PEOPLE / HOUR) **TIME LEFT** 13:25:45

Player 1
Medical Screener

CALL FOR HELP

Medical Screener
CAPTAIN

Player 1: I need someone to assist.
CAPTAIN: Assistance is on the way.

HANG UP

Request Supplies

- CLIPBOARD
- FORMS
- MEDICAL
- PENCILS
- WATER

Request Personnel

ASSISTANCE

HANG UP

I don't have time for this. I have an emergency!

Calling for help is the right thing to do.

CASE COMPLETE

Chicago Department of Public Health

Supply Management

The screenshot shows a software interface for a medical screener. At the top left, there is a 'RATE' section with a green progress bar and the text '1200 (PEOPLE / HOUR)'. To its right is a 'TIME LEFT' section showing '12:54:52'. Further right is a 'QUIT' button and a player indicator for 'Player 1 Medical Screener'. The main area is divided into several sections:

- Left Panel:** A video feed of a man in a black shirt with a speech bubble saying 'I'm really sick.' Below the video are icons for a clipboard, a stack of papers, and a pencil.
- Center Panel:** A series of yellow buttons with the following text: 'Have you noticed any changes on the surface of your skin?', 'How long have you been feeling ill?', 'Anthrax is not contagious.', 'Can you describe your symptoms for me?', and 'Ask Standard Questions'. Below these are three question boxes with question marks: 'Are you feeling ill today?', 'Is anyone in your immediate family feeling ill?', and 'Were you at the infection site?'. At the bottom of this panel are two buttons: 'Send to [unclear] ns Pool' and 'Send to Medical Eval'.
- Right Panel:** A 'CALL FOR HELP' section with a 'Captain' icon and a 'CALL' button. Below this are three empty slots for other help requests.

At the bottom of the interface, there is a 'FORMS' section showing '73%' completion and a small blue icon.

Chicago Department of Public Health

Quizzes

RATE 1200
(PEOPLE / HOUR)

TIME LEFT
14:44:24

QUIT

Player 1
Medical Screener

CALL FOR HELP

POP QUIZ

Who is the first person a citizen will encounter in a DVC?

A Interpreter

B Dispensing Captain

C Medical Screener

D Forms Distributor

Please select an answer.

Captain **CALL**

Chicago Department of Public Health

Overall Results

GENERAL RESULTS CHALLENGE RESULTS POP QUIZ RESULTS

The DVC Game

Click the various tabs on the top of the screen to review the results of your experience in The DVC Game.

After reviewing your report, **please return to the LMS to take the post-game quiz.** Successfully completing this quiz will allow you to pass the course.

GAME NAME: Game2031831514	TIME LIMIT: 00:15:00 minutes
ROLE PLAYED: Medical Screener	RATE: 1267 people/hour

Minutes	Rate (people/hour)
0	0
1	1267
2	1267
3	1267
4	1267
5	1267
6	1267
7	1267
8	1267
9	1267
10	1267
11	1267
12	1267
13	1267
14	1267
15	1267

Chicago Department of Public Health

Challenge Results

GENERAL RESULTS CHALLENGE RESULTS POP QUIZ RESULTS

GOOD CHALLENGES: 12 BAD CHALLENGES: 8 SCORE: 600 TIME TAKEN: 2:18

CASES


- CASE 1
- CASE 2
- CASE 3
- CASE 4
- CASE 5
- CASE 6
- CASE 7
- CASE 8
- CASE 9
- CASE 10
- CASE 11

3 CASE TITLE: Y02
SCORE: 100
TIME TAKEN: 0:09

YOUR RESPONSES
- Call:Assistance

CASE HINT
You captain can provide you assistance for dealing with persons who are intoxicated.

Hello. Whew! You guys sure know how to throw a party. Ha. Ha. I might be a little drunk, ya know?



Chicago Department of Public Health

Quiz Results

GENERAL RESULTS CHALLENGE RESULTS **POP QUIZ RESULTS**

CORRECT RESPONSES: **2** INCORRECT RESPONSES: **3** SCORE: -50 TIME TAKEN: 2:33

QUIZ	QUESTION	YOUR RESPONSE	CORRECT RESPONSE	TIME
1	Where do public health workers report before coming to the DVC?	ATC- Assembly and Transport Center	ATC- Assembly and Transport Center	0:05
SCORE				
50				
2	What should you do upon arrival at the DVC?	Register at check in	All of the above	0:05
SCORE				
-50				
3	Can inhalation anthrax be passed from one person to another?	Yes	No	0:05
SCORE				
-50				
4	Who is the first person a citizen will encounter in a DVC?	Medical Screener	Medical Screener	0:06
SCORE				

Chicago Department of Public Health

Forms

RATE
1200
(PEOPLE / HOUR)

TIME LEFT
14:56:17

QUIT GAME

VIEW HANDOUT

INFORMATION FORM FOR RECEIVING ANTIBIOTIC PRESCRIPTION(S)

ANTIBIOTIC CHECK IF YOU HAVE
CHECK IF YOU HAVE
CHECK IF YOU HAVE
KIDNEY DISEASE
DRUG ALLERGIES

CLICK ON A ROW TO REVIEW AND CREATE A LABEL

LAST NAME, FIRST NAME	AGE (yr)	WEIGHT (lbs)			
Dave Wilson					⬇
Sandra Wilson					⬅
Tim Wilson					⬅
Joan Wilson	10	75	✗		⬅
Dave Wilson Jr	8	65			⬅
Pete Wilson	4	50		✗	⬅

REQUEST CLARIFICATION FOR THIS INFORMATION

ADULT

PEDIATRIC

1

+1

-1

BOTTLE(s)

Dave Wilson

NAME

CIPRO

DRUG

+DOSING SYRINGE +BOTTLE ADAPTOR

VIEW DRUG CHART

SUBMIT LABELS

CLOSE FORM

CALL FOR HELP

FormsCaptain10
FormsCaptain

CALL

NeighborLeft
Neighbor

Security1
Security

Interpreter1
Interpreter

YOUR IDENTITY

Dave Uryasz
Forms Reviewer

Dispensing

RATE 1200 (PEOPLE / HOUR) **TIME LEFT** 14:19:05 **QUIT**

1170

ADULT **Henry Miller**
NAME
Doxycycline
DRUG
BOTTLE(s) **1**
 DOSING SYRINGE BOTTLE ADAPTOR

ADULT **Rose Mildred Miller**
NAME
Doxycycline
DRUG
BOTTLE(s) **5**
 DOSING SYRINGE BOTTLE ADAPTOR

TOTAL

ADULT BOTTLE(s)	-1	0	+1
PEDIATRIC BOTTLE(s)	-1	0	+1
DOSING SYRINGE(s)	-1	0	+1
BOTTLE ADAPTORS(s)	-1	0	+1

GIVE DISPENSING KIT TO PATIENT AND RETURN

OR

RETURN WITHOUT KIT

CALL FOR HELP

Dispensing Captain **CALL**



Chicago Department of Public Health

Game Evaluation

- 65 Clinical Coordinators (randomized)
- 35 in Game Group / 30 in Face-to-Face
- Game group
 - Computer Skills self assessment
 - Didactic
 - Game Training
 - Game Play
 - Post-test
 - Satisfaction Survey
- Face-to-Face
 - Same as Game Group, except replaced Didactic, Game Training, and Game Play with 30 minute Face-to-Face training

Game Evaluation

General conclusion:

The game was just as effective at increasing knowledge about the DVC as the face to face training, even among a population that has a fairly low level of skill using computers.

Game Evaluation

Comments:

- “Game is very practical and useful and an excellent teaching tool.”
- “Very interesting...fun way to learn.”
- “Excellent. This game requires the screener to multitask during the situation.”
- “I thought this game would be easy, but it really required me to think critically about my decisions. thanks”
- “It was fun.”

Play the Game

The game is free to play at

<http://www.ThePodGame.com/>

This game was supported by Cooperative Agreement Number U90/CCU524258-03 from CDC to the Chicago Department of Public Health. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC. The game was developed by the Chicago Department of Public Health and the University of Illinois at Chicago School of Public Health Center for the Advancement of Distance Education (CADE).

Chicago Department of Public Health



*Chris Kosmos,
Deputy Commissioner*



*Terry Mason, MD,
Commissioner*

Chicago Department of Public Health