

The Flu Pandemic Game

**A business continuity training resource for GP
Practices**

Resource Pack

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The Camden Flu Pandemic Game was originally developed by Camden Primary Care Trust using NHS resources in partnership with Camden Council; it was designed as a training resource for their own staff and to help managers of local businesses and voluntary organisations develop their own business continuity plans. This version has been adapted by the Department of Health specifically for use in GP Practices.

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Background Information

What is the Flu Pandemic Game?

The Flu Pandemic Game is a business continuity game for 3 to 8 players. The aim of the game is to help players appreciate the impact of a possible influenza pandemic on their own organisation by simulating the effects such a pandemic could have on staffing.

The Flu Pandemic Game can be adapted easily to make it specific to your own organisation. You can use it to raise general awareness of business continuity planning, to help your organisation identify business continuity issues, or as a simulation exercise to test how your business continuity plan would work in practice.

Who can play the Flu Pandemic Game?

Anyone can play – you don't need any special prior knowledge or expertise. Players play the game in groups of between 3 and 8 so people with disabilities or learning difficulties can be supported.

What do you need to play?

- 3 to 8 players
- The Flu Pandemic Game Resource Pack
- Dice
- Pens or pencils

How long does the Game take?

With a typical group of players the Game usually lasts between 45 minutes and 1 hour, but this will vary according to the length of time you wish to spend discussing the issues raised.

Facilitator's Guide

This game is best played with one person solely acting as the Facilitator. However, if numbers are too small to permit this, it is possible for a player also to act as the Facilitator.

Step 1: Preparing for the game

Before playing the game you will need to have:

- A copy of the Facilitator's Guide
- A copy of the Absence Chart (you may find it easier to reproduce this in A3 size)
- A copy of the Sickness Probability Rates
- A copy of the Chance Cards
- Dice (preferably one per person to speed up the Game)
- Pens/Pencils

Step 2: Setting up the Game

- In the top row of the Absence Chart fill in the appointments of all your practice staff, including non-medical staff such as receptionists and cleaners.
- Each of these employees must be 'played' by one of the players. In the second row of the Absence Chart, write the name of the player who will 'play' that person.
- Choose one of the players to complete the Absence Chart. Alternatively, the Facilitator may decide to fulfil this role.

You are now ready to start the Game.

Step 3: Playing the Game

Each round of the Game covers one week of the pandemic.

- At the start of each round, the Facilitator reads out the criterion for infection for that week from the Sickness Probabilities Rate sheet (ie, in round one a player rolls the dice 4 times for each Employee s/he is 'playing'; if s/he throws 4 sixes then that employee has caught flu). The probability of catching pandemic flu changes as the pandemic proceeds.
- Each player throws the dice the appropriate number of times for each of her/his Employees to determine whether that Employee has caught flu during that particular week of the pandemic.
- If an Employee catches the flu, the person completing the Absence Sheet marks that person absent for that week and the next 2 weeks. After 3

- weeks that Employee is returned to the Game **BUT** the player 'playing' that Employee does not throw the dice for them again because they are now immune to flu. However, they could still be affected by the Chance Cards (see below).
- At the end of rounds 1-14, the Facilitator reads out the **Chance Card** for that particular round. The Chance Cards introduce external events which affect the GP Practice such as fuel shortages or disruptions to supplies. If an employee is removed from the Game by the effect of a Chance Card this should be marked on the Absence Chart by a different colour or symbol (e.g. a tick instead of a cross) so that it can be distinguished from absence due to illness.
 - When discussing the effects of the Chance Cards, it is worth the Facilitator pointing out to players that although each external event is only mentioned in one round during the Game, in real life these events would continue for many weeks. A fuel shortage, for example, is unlikely to affect just one week as it does in the Game. The effects of these external events are, in fact, likely to be felt for many weeks.

This process is repeated for each subsequent round.

At the end of each round the Facilitator should encourage players to discuss the following points:

- How have staff absences affected the Practice?
- How have outside events (as introduced by the Chance Cards) affected the Practice?
- Would any key functions have been lost or suspended and for how long?
- If they closed or suspended any functions, how would this have impacted on the patients?
- How might the Practice have protected itself better against closure or suspension of activities?

When all 15 rounds of the Game have been played, there should be a completed Absence Chart covering the 15 weeks of the pandemic. The Facilitator should then lead a discussion on the following points:

- What plans are in place to cope with a pandemic?
- How will those plans stand up to the levels of staff sickness experienced during the game?
- How will those plans stand up to the types of events introduced into the game by the Chance Cards?
- How can those plans be improved?

Groups of GP Practices

The Camden Flu Game can be played simultaneously by a group of GP Practices. Each Practice sits in its own group and has a separate Absence Chart for its own organisation on which it records each round. Sickness Probability Rates and Chance Cards are introduced by the Facilitator as in the single Practice Game. However, the ensuing discussion takes place between all those present and should focus on such topics as:

- How the individual Practices are affected.
- How the Practices can work together to mitigate the effect of the pandemic on the service provided.

It is **strongly** recommended that, when playing the Game with more than one Practice, the Facilitator is not one of the players but concentrates upon the role of facilitating the Game and ensuing discussion.

Warning

Some people may find it disturbing to play the Game using the details of their own organisation. The Game is a simulation and has no effect at all on subsequent events, but it can seem a little like fortune telling. We recommend that, wherever possible:

- Job titles are used rather than actual names
- A Facilitator with substantial experience of delivering training on sensitive topics (e.g. Child Protection, Equal Opportunities) facilitates the session.
- The Game is played twice – the outcome will be different each time and this can be reassuring for participants.

Technical Information

The Flu Pandemic Game is based on the best information available in March 2009 from the UK Department of Health, the World Health Organisation and other official sources. When the next influenza pandemic occurs it might turn out that some of this information was incorrect. Neither the Department of Health nor Camden PCT accepts any liability for the correctness of the modelling assumptions underlying the Flu Pandemic Game or for any loss or damage resulting from the use of the Game however caused.

This game is devised to simulate the random infection amongst a group of people during an outbreak of pandemic influenza. The probabilities used are drawn from the Local Planning Profile created by the Department of Health and uses their “worst case” scenario of 50% of the population becoming infected during the course of the pandemic. Simulations of the predicted rate of new cases based on this assumption using dice can only be approximate. The predicted attack rates and the attack rates simulated using dice are given in the Resource Pack.

The Flu Pandemic Game differs from the modelling assumptions recommended for planning in the following three ways:

- The Flu Pandemic Game assumes return to work 3 weeks after contracting the disease. National modelling is currently based on the assumption of 5-8 days absence from work. The Camden inter-agency influenza pandemic planning group considers the longer period of absence for recovery to be more realistic given the known severely debilitating effect of an attack of normal seasonal influenza.
- The Flu Pandemic Game assumes the probability of re-infection after an attack of pandemic influenza to be zero. In practice the probability of re-infection is likely to depend on how quickly and in what manner the pandemic virus mutates. The probability of re-infection after recovery is unlikely to be zero but nevertheless is likely to be significantly reduced. The possibility of re-infection has not been included in the Flu Pandemic Game because simulating a greatly reduced but non-zero probability of re-infection makes a dice game unwieldy and too long.
- The Flu Pandemic Game assumes a zero mortality rate. The ‘Worst realistic case’ modelling scenario assumes a mortality rate of 0.37% based on the 1918/19 pandemic. The possibility of mortality has not been included in the Flu Pandemic Game because simulating such a small probability makes the Game unwieldy and too long.

Further information about pandemic influenza and the recommended modelling assumptions for pandemic planning can be found on the Department of Health website at www.dh.gov.uk/pandemicflu

Absence Chart

Name of business:.....

Name of Employee:														Total absent
Played by:														
Week 1														
Week 2														
Week 3														
Week 4														
Week 5														
Week 6														
Week 7														
Week 8														
Week 9														
Week 10														
Week 11														
Week 12														
Week 13														
Week 14														
Week 15														

Sickness Probability Rates

(50% overall attack rate – this is the ‘worst case’ planning scenario)

Week of pandemic	Probability of new case (%)	Throws of dice per Employee:	Employee gets flu if you throw:	Model probability (%)
Week 1	0.07	4	4 sixes	0.08
Week 2	0.10	4	4 sixes	0.08
Week 3	0.73	4	The spots add up to six	0.77
Week 4	3.56	3	All fives or sixes	3.70
Week 5	12.99	4	2 or more sixes	13.19
Week 6	12.99	4	2 or more sixes	13.19
Week 7	7.65	3	2 or more sixes	7.41
Week 8	4.64	3	The spots add up to six	4.63
Week 9	3.29	3	All fives or sixes	3.70
Week 10	1.86	4	The first 3 throws add up to 9, then you throw a six	1.85
Week 11	0.6	4	The first two throws add up to 11, the next two add up to 9	0.62
Week 12	0.79	4	The spots add up to 6	0.77
Week 13	0.46	3	3 sixes	0.46
Week 14	0.15	4	3 sixes, then a five or a six	0.15
Week 15	0.16	4	3 sixes then a five or a six	0.15
Totals:	50%			50.77

Chance Cards

Chance Card Round 1

Everything seems normal – flu does not seem to be affecting your Practice at all!

Chance Card Round 2

There is a high demand for information on flu from your patients: the daily rate of telephone calls has tripled and many patients are coming in to the Practice and asking at Reception for information. How are you going to deal with this?

Chance Card Round 3

Requests from your patients for flu jabs have quadrupled. How will your Practice respond?

Chance Card Round 4

Public transport services are becoming disrupted by staff shortages. For each employee who travels to work by public transport have one throw of the dice: if you throw a one, that employee will be absent from work this week.

Chance Card Round 5

Due to staff shortages, there has been a 50% reduction in supplies being delivered/available to you. How will your Practice respond?

Chance Card Round 6

Schools and nurseries have closed: there is a 33% chance that any employee with children can't work for the next 2 weeks. For each employee with children under the age of 14, have one throw of the dice: if you throw a one or a two that employee will not be at work this week.

Chance Card Round 7

There is a fuel shortage resulting in a 50% chance that non-medical staff who travel to work in their own car are unable to get to work this week. For each employee who travels to work in their own car have one throw of the dice: if you throw an even number that employee will be absent this week.

Chance Card Round 8

There has been a 50% rise in the number of patients requesting home visits. How will your Practice respond?

Chance Card Round 9

80% of the residents in any local care homes for which you provide medical cover are ill with flu. How will this affect the Practice?

Chance Card Round 10

Public Transport continues to be severely disrupted. None of the employees who use public transport will be at work this week. Mark them as absent on the Absence Sheet.

Chance Card Round 11

Everyone who is off sick at the moment will be off work for an additional 2 weeks (after their own 3-week illness period) looking after other members of their family. Mark their prolonged absence on the Absence Sheet

Chance Card Round 12

You are inundated with requests for bereavement counselling. What service can you provide?

Chance Card Round 13

Due to disruption in production, you are still receiving only 50% of your normal supplies. How will this affect your Practice's recovery?

Chance Card Round 14

You are trying to catch up with the backlog of work. What plans do you have in place to assist your return to normality?