



PANDEMIC



**A business continuity training
resource for organisations.**

Resource Pack

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Foreword

The 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 (renamed “Pandemic”) has been adapted by the North EAST Tri-borough Civil Protection Service.

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Background Information

What is Pandemic?

Pandemic is a business continuity exercise for 3 to 60 participants. The aim of the exercise is for participants to consider the impact of a pandemic on their own businesses. The activity simulates the effects of a pandemic on staffing in an imaginary group of small businesses.

Pandemic 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 or teams within your organisation identify business continuity issues for their own planning, or as a simulation to test how your business continuity plan would work in practice.

Who can participate?

Anyone can participate – you don't need any special prior knowledge, or expertise.

What do you need to start?

- 3 to 12 participants, or you can form teams for up to 60 participants
- the Pandemic resource pack
- dice (at least one per team and preferably one per person)
- pens or pencils

How long does the exercise take?

The exercise usually lasts between 45 minutes and 1 hour, but it is beneficial to include an additional half hour for discussion afterwards.

Facilitator's Guide

The resource pack contains materials to simulate the effects of a pandemic on the following 12 fictional local organisations or businesses:

- Battle Bridge Vehicle Services
- Priory Software Solutions
- Cornish Town Post Office
- Tyrol Cottage Nursery and Playgroup *
- Cornish Town Road Station
- Istanbul Supermarket
- Preacher's Oak House *
- High View Medical Centre *
- Central Point Ambulances *
- Heathside Ward *
- Primax Business Support Ltd
- Mental Health Community Care team *

* Healthcare and related service providers

During the exercise each team of participants will model the effects of the pandemic on one of these businesses.

Step 1: Prepare

Before starting you will need to:

- ensure you have a copy of the Facilitator's Guide
- put the Business Details Sheet and an Absence Chart for each business into a separate folder, or envelope. You may find the exercise easier if you enlarge the Absence Charts to A3.
- obtain the appropriate number of dice (at least one per team, but preferably one per player).

Step 2: Decide how many teams will be participating

Each team should comprise at least 3 participants, but not more than 6.

Step 3: Decide which businesses you will use in your exercise

If there are 36, or more players in your group you can use all the businesses. If there are fewer participants, you simply choose the businesses you want to include and leave the others out.

Step 4: Allocate a business to each team

- Give each team their folder and dice and ask them to familiarise themselves with their business
- ask the team to insert their Business's employee details into the top line of the Absence Chart
- each of the employees named on the Absence Chart must be 'played' by one of the participants. In the second row, write the name of the participant who will 'play' that person
- choose someone in each team to complete the Absence Chart during the exercise.

You are now ready to start.

Step 5: Play the first round

Each round of the exercise 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 Round One represents Week One; a participant throws the dice 4 times for each employee for whom s/he is responsible and if s/he throws 4 sixes then that employee has caught the disease).

Each team member throws the dice for each of her/his Employees to determine whether that Employee has caught the disease during Week 1 of the pandemic.

If an Employee catches the disease, the person completing the Absence Sheet marks that person absent for that week and the next following week. After 2 weeks that Employee is returned to the exercise, BUT the player looking after that Employee does not throw the dice for them again because they are now immune (disclaimer: immunity for COVID19 is still undetermined). However, they could still be affected by the Chance Cards, which the Facilitator reads out at the end of Rounds 6,7,8,9,10,11(see below).

Step 6: Subsequent rounds

The probability of catching the disease changes as the pandemic proceeds. At the start of each round, the Facilitator reads out the criterion for infection for that week from the Sickness Probabilities Rate Sheet before the team members take it in turns to throw the dice for their Employees.

Chance Cards

The Chance Cards are used at the end of rounds 6, 7, 8, 9, 10 and 11 of the exercise and introduce contingencies which affect ALL of the businesses. If an employee is removed from the exercise 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 all 15 rounds of the exercise have been completed each team should have completed an Absence Chart for their business covering the 15 weeks of the pandemic.

Review of the Absence Charts after each round

After each round participant should consider the following points:

- How severely was their business affected?
- Would they have been likely to have to close the business?
- Would any key functions of the business have been lost or suspended and for how long?
- Who were their businesses' key employees?
- How might their business have protected itself better against closure or suspension of activities?
- If their business closed or suspended its functions, how would this have impacted on the other businesses in the exercise?

It is also useful to hold a general discussion about the effects of the Chance Cards, which may be found more disruptive than the effects of the pandemic itself.

Adapting Pandemic to your own organisation

We recommend that the fictional businesses provided when new to Pandemic, then when familiar with the exercise you can use your own organisation for the exercise. This can be done very simply in the following way:

- make up Business Details Sheets for your own organisation, or teams/departments within your own organisation, using actual job titles and actual numbers of staff

Warning

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

- job titles are used rather than actual names
- where possible, a Facilitator with substantial experience of delivering training on sensitive topics (e.g. Child Protection, Equal Opportunities) facilitates the session
- reassure participants that the outcome is different every time and does not bare actual consequence.

Technical Information

Pandemic is based on the best information available in March 2009 from the UK Department of Health, the World Health Organisation and other official sources. Neither the Department of Health or previous publishers accept any liability for the correctness of the modelling assumptions underlying Pandemic, or for any loss or damage resulting from its use however caused.

This exercise 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.

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

- Pandemic assumes return to work 2 weeks after contracting the disease following PHE and government guidance of a 14 day isolation period for COVID19.
- Pandemic assumes the probability of re-infection after an attack of pandemic influenza to be zero. In practice the probability of reinfection 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 this exercise, because simulating a greatly reduced but non-zero probability of reinfection makes a dice exercise unwieldy and too long.
- Pandemic 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, because simulating such a small probability makes the exercise 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

Business Details Sheet 1: Battle Bridge Vehicle Services

Name of business	Nature of business	Main business activities	Key linkages
Battle Bridge Vehicle Services	Garage	Servicing delivery vehicles for local businesses MOT tests Emergency towing and repairs	Major contracts to service and repair vehicles for Istanbul Supermarket, Central Point Ambulances and Tyrol Cottage Nursery and Playgroup (vehicle for children with disabilities)

	Name	Responsibilities
1	Nick	Manager, premises key-holder, cheque signatory, liaises with customers, timetables and allocates work to staff
2	Celine	Administrator, runs accounts and payroll,
3	Jim	Assistant Manager, premises key-holder, cheque signatory, supervises staff, liaises with customers, orders stock
4	Ron	Chief Mechanic. Premises key holder. Services vehicles, supervises other mechanics, orders stock. Qualified to conduct MOT tests.
5	Dean	Mechanic. Services and repairs vehicles. Qualified to conduct MOT tests.
6	Craig	Mechanic. Services and repairs vehicles. Qualified to conduct MOT tests.
7	Wayne	Mechanic. Services and repairs vehicles.
8	Suzanne	Mechanic. Services and repairs vehicles.
9	Leonie	Mechanic. Services and repairs vehicles.
10	Timothy	Trainee mechanic. Services vehicles under supervision.
11	Bhavik	Trainee mechanic. Carries out simple servicing under supervision.
12	Linda	Administrator/Receptionist. Takes telephone bookings from customers, deals with stock orders and suppliers.

Business Details Sheet 2: Priory Software Solutions

Name of business	Nature of business	Main business activities	Key linkages
Priory Software Solutions	IT company	Designs, installs and maintains IT systems for small to medium sized businesses	Maintains payroll systems for Battle Bridge Vehicle Services and High View Medical Centre Maintains stock control and ordering systems for Heathside Ward and Preacher's Oak House.

	Name	Responsibilities
1	Alison	Partner. Premises key-holder and cheque signatory. Maintaining services to existing clients. Allocates work to company employees.
2	Julia	Partner. Premises key-holder and cheque signatory. Oversees company finances and office functions.
3	Ian	Partner. Premises key-holder and cheque signatory. Responsible for advertising, promotion of company to new clients and bidding for contracts.
4	Reshma	Receptionist/PA. Premises key-holder. Runs office.
5	Sundra	Accountant. Manages all financial aspects of company, including payroll and client accounts.
6	Nushrat	Software Specialist. Designs IT systems for clients.
7	George	Software Specialist. Designs IT systems for clients.
8	Edward	System installation specialist. Installs new systems and assists with preparation and presentation of contract bids.
9	William	System maintenance specialist. Services clients' systems.
10	Hari	Helpline advisor/System maintenance specialist. Provides client support by email and telephone. Services clients' systems.
11	Oleyinka	Helpline advisor/System maintenance specialist. Provides client support by email and telephone. Services clients' systems.
12	Kathryn	Website designer. Responsible for company's own website. Designs and maintains websites (including e-sales) for clients.

Business Details Sheet 3: Cornish Town Post Office

Name of business	Nature of business	Main business activities	Key linkages
Cornish Town Post Office	Post Office branch	Post Office services including banking, pensions and benefits payments, mail services, passport applications, vehicle tax	Banking services (including cash withdrawal for casual worker payroll) to Istanbul Supermarket, Central Point Ambulances and Tyrol Cottage Nursery and Playgroup Parcels and mail franking for Heathside Ward, Priory Software Solutions and Primax Business Support Post office services to all local businesses and residents

	Name	Responsibilities
1	Tim	Post Master. Overall responsibility for running of business. Premises and safe key-holder. Stock control.
2	Denise	Assistant Post Mistress. Supervises staff and allocates work.
3	Bipinchandra	Clerk. Responsible for weekly balance. Safe key-holder.
4	Alom	Clerk
5	Chris	Clerk
6	Jasmine	Clerk (part-time)
7	Louise	Clerk (part-time)
8	Shiek	Clerk (part-time)
9	Wai-Fong	Clerk (part-time)
10	Suzian	Clerk (part-time)
11	Vivienne	Post Office Shop. Not trained for PO counter work.
12	Reneé	Post Office Shop. Not trained for PO counter work.

Business Details Sheet 4: Tyrol Cottage Nursery & Playgroup

Name of business	Nature of business	Main business activities	Key linkages
Tyrol Cottage Nursery and Playgroup	Nursery	Provides day-care for 40 children aged 0-3, including 10 assisted places for children with physical disabilities. There are strict legal requirements on child/staff ratios for childcare provision.	Provides day-care for children of employees of Cornish Town Road Station, Preacher's Oak House, Priors Software Solutions, and Heathside Ward. Contract with Central Point Ambulances for ambulance service for children with disabilities.

	Name	Responsibilities
1	Lorna	Manager. Runs office, accounts, payroll, stock ordering. Liaison with parents.
2	Vanessa	Supervisor: Babies (0-6 months)
3	Afrah	Supervisor: (6 months – 18 months)
4	Christiana	Supervisor: (18 months – 3 years)
5	Ola	Childcare worker (babies)
6	Jamila	Childcare worker (babies)
7	Rick	Childcare worker
8	Mohammed	Childcare worker
9	Rachel	Office Assistant
10	Natasha	Cook and cleaner.
11	Doris	Childcare worker (children with disabilities)
12	Gareth	Childcare worker (children with disabilities)

Business Details Sheet 5: Cornish Town Road Station

Name of business	Nature of business	Main business activities	Key linkages
Cornish Town Road Station	Underground station	Part of London Underground Network. Station is open 19 hrs per day, with staff on a 3-shift system.	Employees of Primax Business Support, High View Medical Centre, Priors Software Solutions, Cornish Town Post Office, Tyrol Cottage Nursery and Playgroup, Preacher's Oak House, Primax Business Support and Heathside Ward use this station to get to work. Customers of all local businesses use this station.

	Name	Responsibilities
1	Kingsley	Manager. Safe key holder.
2	Naomi	Deputy Manager. Safe key holder.
3	Emmanuel	Booking office Clerk
4	Ishmael	Booking office Clerk
5	Matthew	Booking office Clerk
6	Felicia	Booking office Clerk
7	Joseph	Security. Premises key holder.
8	Fola	Security. Premises key holder.
9	Felix	Security. Premises key holder.
10	Hasib	Cleaner and Customer Assistant
11	Peter	Cleaner and Customer Assistant
12	John	Cleaner and Customer Assistant

Business Details Sheet 6: Istanbul Supermarket

Name of business	Nature of business	Main business activities	Key linkages
Istanbul Supermarket	Supermarket	Sells groceries to local residents Delivers sandwiches to local offices at lunchtimes (telephone ordering service) Sells and delivers groceries to local business premises	Weekly contracts to provide and deliver cleaning materials and household goods to Heathside Ward, Preacher's Oak House and Cornish Town Post Office. Contract to deliver business lunches to Priory Software Solutions. Main point of supply for staff of Battle Bridge Vehicle Services, Central Point Ambulances and Cornish Town Road Station and residents of Heathside Ward

	Name	Responsibilities
1	Hassan	Manager. Stock control, staff supervision, buying. Premises key holder. Safe key holder.
2	Habib	Assistant manager. Accounts and payroll. Safe key holder. In charge of customer deliveries. Van driver.
3	Ali	Sales assistant. Checkout.
4	Runel	Sales assistant. Checkout.
5	Shelim	Sales assistant. Checkout.
6	Aydin	Assistant. Makes up sandwich lunch orders for delivery. Part time
7	Mobarak	Assistant Makes up grocery orders for delivery. Stocks shelves.
8	Irshad	Security, cleaning and maintenance.
9	Kemal	Security, cleaning and maintenance.
10	Muhibor	Sales assistant. Checkout.
11	Murat	Van driver for stock collection and customer deliveries.
12	Mohammed	Van driver for early morning trips to markets. Part time (early mornings only)

Business Details Sheet 7: Preacher's Oak House

Name of business	Nature of business	Main business activities	Key linkages
Preacher's Oak House	Care Home	Houses 60 elderly people who are unable to live alone and require basic nursing care. Home is staffed 24/7. There are legal requirements for resident/staff ratios.	Houses elderly relatives of employees of Istanbul Supermarket, Central Point Ambulances and Cornish Town Road Station. Contract with Central Point Ambulances.

	Name	Responsibilities
1	Ruby	Manager. Liaison with Council, residents' families, parent company. Premises key-holder and safe key-holder. Cheque signatory.
2	Johanna	Assistant Manager. Supervises staff and organises shift rotas. Premises keyholder. Cheque signatory.
3	Rita	Accounts. Payroll, purchasing, collection of fees, reconciliation, banking.
4	Sharon	Care Worker
5	Babatunde	Care Worker
6	Adeyemi	Care Worker (Nights)
7	Pierre	Care Worker (Nights)
8	Justine	Chef
9	Catherine	Assistant Chef
10	Erica	Kitchen Assistant
11	Ted	Cleaner
12	Olive	Cleaner

Business Details Sheet 8: High View Medical Centre

Name of business	Nature of business	Main business activities	Key linkages
High View Medical Centre	GP practice	General practitioners for local community	Referrals to NHS services including Heathside Ward, Mental Health Community Care Team. Payroll and other systems (including inventory) maintained by Priory Software Solutions.

	Name	Responsibilities
1	Clive	Practice Head. Doctor.
2	Simon	Practice Doctor
3	Abigail	Practice Doctor
4	Jessica	Practice Doctor, specialism in child care
5	Gavin	Practice Nurse. Qualified phlebotomist
6	Claire	Receptionist. Mans front desk and answers patient calls
7	Lucy	Cleaner. Cleans premises; responsible for safe disposal of medical waste
8	Jason	Office Manager. Manages staff, premises, legal and IT issues. Main premises key holder
9	Amanda	PA/Secretary. Provides secretarial support to doctors and Office Manager
10	Linda	Receptionist/Secretary. Mans front desk at peak times. Supports the pharmacist in stock control and ordering
11	Zoe	Practice Nurse.
12	Gustav	Pharmacist. Manages in-house dispensary.

Business Details Sheet 9: Centre point Ambulances

Name of business	Nature of business	Main business activities	Key linkages
Central Point Ambulances	Ambulance service	Non-emergency transport of patients Delivery of urgent medical supplies	Provides ambulance services to local NHS and private healthcare providers including Tyrol Cottage, Heathside Ward. Vehicle maintenance by Battle Bridge garage.

	Name	Responsibilities
1	Comfort	Manager. Recruits staff. Purchases supplies. Premises key holder. Cheque signatory.
2	Fahreed	Ambulance Driver
3	Joseph	Ambulance Driver
4	Alan	Ambulance Driver
5	Tony	Paramedic
6	Nelson	Paramedic
7	Darren	Paramedic
8	Stephanie	Paramedic
9	Keith	Paramedic
10	Robyn	Motorcycle courier rider
11	David	Controller. Co-ordinates scheduling and allocates work to drivers.
12	Karen	Controller. Co-ordinates scheduling and allocates work to drivers.

Business Details Sheet 10: Heathside Ward

Name of business	Nature of business	Main business activities	Key linkages
Heathside Ward	Specialist ward	12 bed specialist facility for childhood cancer patients	Transport services provided by Central Point Ambulances. HR and payroll services provided by Primax.

	Name	Responsibilities
1	Margaret	Clinician.
2	Stella	Clinician.
3	Claudette	Ward Nurse
4	Bill	Ward Nurse
5	Dave	Security/Reception (out of hours)
6	Martin	Security, portering.
7	Quentin	Palliative Care Worker
8	Dawn	Catering Manager and Dietician
9	Joel	Cook
10	Regina	Administrative Assistant
11	Dennis	Cleaner
12	John	Retired local vicar. Acts as Ward Chaplain.

Business Details Sheet 11: Primax Business Support Ltd. (PBS)

Name of business	Nature of business	Main business activities	Key linkages
Primax Business Support Ltd (PBS)	Outsourced facilities management company	Providing HR, finance and IT support to healthcare organizations	Provides payroll, HR and IT support to Mental Health Community Care team, Central Point Ambulances and Heathside Ward

	Name	Responsibilities
1	Jayne	Managing Director; Account Manager for NHS relationship
2	Bruce	Client HR Facilities Manager
3	Jacintha	Financial Administrator. Runs client BACS payroll systems
4	Joanna	PA and secretary to senior PBS staff
5	Terry	Client Procurement Manager. Facilitates procurement services (IT, catering, etc)
6	Marie-Louise	Receptionist. Mans front desk and answers client calls. Key holder for office
7	Ludmilla	Cleaner. Cleans PBS premises; responsible for safe disposal of medical waste
8	Matthew	Client Estates Manager. Responsible for day-to-day management of premises for clients
9	Jaclyn	Administrative Assistant. Provides book-keeping and general admin support
10	Deborah	Lawyer and qualified Company Secretary. Provides property management services to clients.
11	Winston	Client IT support line manager.
12	Sebastian	Client IT support line worker.

Business Details Sheet 12: Mental Health Community Care Team

Name of business	Nature of business	Main business activities	Key linkages
Mental Health Community Care Team	Mental healthcare provision	Psychiatric and therapeutic support for mental healthcare patients	Uses Central Point Ambulance services. HR and payroll contract with Primax

	Name	Responsibilities
1	Daniel	Psychiatrist. Team manager
2	Lloyd	Consultant
3	Warren	Senior House Officer (Supports the psychiatrist and consultant)
4	Emma	Community Psychiatric Nurse
5	Sonja	Community Psychiatric Nurse
6	Stewart	Clinical Psychologist
7	Anne	Occupational therapist
8	Luke	Occupational therapist
9	Caroline	Speech and Language Therapist
10	Debbie	Receptionist.
11	Wilhelmina	Secretary/Admin assistant
12	Frank	Driver/porter

Chance Cards

Chance Card Round 6

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 7

Due to staff shortages, there has been a 50% reduction in all types of supplies routinely delivered to you. How will you organisation respond?

Chance Card Round 8

There is a fuel shortage resulting in a 50% chance that staff that 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 9

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

Chance Card Round 10

Public Transport is now 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 2-week illness period) looking after other members of their family. Mark their prolonged absence on the Absence Sheet