

# Food Allergy Reporting

Discovery

Phase 2 Presentation



#### Content

- 1. Introduction and context
- 2. Impact assessment
- 3. Recommendations
- 4. Design principles and concepts
- 5. Next steps



## Why are we here?

The FSA commissioned Notbinary to explore a way to collect data from the general public through reporting food based allergic reactions (actual or narrowly avoided) in order to improve future prevention



## |Hypothesis

Allergic reactions to food are currently under reported

It is difficult to report allergic reactions

There is no uniform method of reporting allergic incidents - reporting methods vary widely



## Current FSA pain points

Due to a lack of data, the FSA does not know the number of food-related allergic reactions that occur in England, Wales and Northern Ireland.

By not having this data, the FSA does not have sufficient clarity or insight into existing trends and patterns within the allergen space.

Ultimately, the FSA is unable to predict future behaviours, trends and patterns, which makes it hard to plan for future policy decisions.



## Discovery foundations



#### What could a solution look like?

# Formal reporting service/tool



FSA owned service/tool

GDS badged service

Dependent on good quality, high number of users to be credible

Will need to be heavily promoted

Easily discoverable

## More 'light touch' approach

Likely to be combination of different approaches

Proactively utilises social media

## Key question

How much data does the FSA need?



# What we've done in Phase 2



#### Week One

Two

Three

Four

Five

Present to business

sponsor

First set of business requirements drafted (workshop)



Meet with Industry Exchange Group (bonus research)

\*

Final show/tell

Establish data rules

Discoverability considerations

Draft service design principles, including usability

Relationship with existing FSA services - RAFP, IRU

Establish how solution would work with LAs

What would a potential solution look like, including consideration of original x4 options

Impact assess potential solutions

Further explore informal ideas

Draft final report, inc, alpha considerations

# Impact assessment

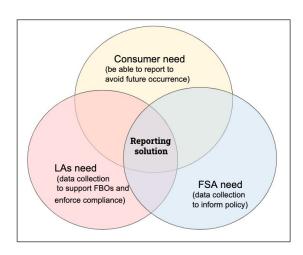


#### Purpose

The impact assessment tool allows us to consider all the key contributing factors that need to be explored for each option.

Ultimately, it helps us to evaluate how well each option meets:

- User (consumer) needs
- FSA needs
- Local authority needs





- 1. Design, build and maintenance
- 2. Data
- 3. Discoverability and awareness
- 4. End User Needs
- Other considerations



#### 1. Design, build and maintenance

What is the complexity and effort required to set up and run each option?

#### 2. Data

- FSA access to data who owns what?
- Data standardisation opportunities and potential complexities?
- Data quality consistency, trust worthiness, need to validate?
- Parsing data does the data need to be shared between different government agencies?
- GDPR + data security potential sensitivities and considerations?



#### 3. Discoverability and awareness

- How easy is it for users to find the service?
- How would the service need to be promoted?



#### 4. End User Needs

- Considerations for/impact on investigation
- Who is responsible for providing outcomes to end users?
- How likely will users be able to trust each option
- Will user anonymity be maintained?
- Will the option be able to support multi-channel opportunities?
- Accessibility considerations and digital inclusion?



#### 5. Other considerations

- Cost
- FSA metrics will it provide data on patterns and trends?
- Existing report a food problem service how will it be impacted? How could the option leverage some of the existing service?



A	В			С			D	
Design/build/maintenance etc.	Upside		Pote	Potential downside/risks/concerns			Notes	
Development	FSA in control of backlog and updates     Build and data storage requirement unlikely to be complex		oe .				FSA owned and manged	
Maintenance	- FSA in control of backlog and updates - Likely to be low in frequency						FSA owned and manged	
Data								
FSA access to data	FSA owns the data consumer provides including storage, analytics etc		Exclu	Excludes opportunity for including data from other sources			Access to consumer data provided by consumer	
Data standardisation	- Data will be structured - FSA has control over how it will be captured			No way to get additional data on a case     Assumes no data rules or smart algorithm for investigation purposes - just a data dump (will require resource to process which could incur additional cost)				
Data quality	Will receive consistent data			- FSA will need to accept the data without any assessment, validation or analysis as it comes in - Possibility for report to be incomplete				
Parsing data	N/A		N/A	N/A				
GDPR + data security	No GDPR concerns because only age range collected		- Cor	Additional cost of data hosting     Commercial sensitivity needed for business data e.g. if the information gets into competitors hands     Constrained about who can access the commercially sensitive data			- There is existing precedent within FSA for this i.e. through the IRU - Data storage length - TBC - how long can FSA keep the data?	
Discoverability and awareness								
Discoverability	- FSA has control over how the service is actively promoted and how users discover it - Could be activitely promoted through FSA social media, user groups and aggregators - Could leverage existing Report a food problem service, although would still benefit from a dedicated awareness campaign to improve awareness		LAs to all - Couwith I done ated - Cousimilar - Low	- Possible low incentive / disincentive to other organisations / LAs to promote - Could result in reputational damage to FSA - reporting service with no investiagtion element / sense that something will be done - Could create confusion with consumers due to multuplicity of similar services i.e FSA reporting, LA reporting - Lower likelihood of consumer to consumer sharing and organic growth			User expectations will need to be clearly managed that the tool will not lead to any follow up or outcome.	
Other								
- If a data capture form only with a simple database,							Design, build and maintenance	
+ ≣ Overview ▼	1 Consume only 🔻	2 Push to LAs ▼	3 IRU 🔻	4 New Team 🔻	5 FBOs ▼	7 LAs ▼	6 NHS ▼	8 Survey 🔻

# Impact assessment, by option



#### **Options 1-4**:

Creation of a new, FSA-owned, online reporting tool for people living with food allergies. These options assume 'live reporting'.

#### Options 5-8:

Obtaining data through other methods, including existing reporting routes. These options don't assume 'live' data collection.

Note - the options are not necessarily mutually exclusive i.e. FSA may decide to adopt two or more options to get the data it requires and provide a reporting tool for users.

#### **Option 1**

Creation of a new FSA-owned online reporting tool - data collection only

- There is no triaging or investigation following the submission of a report.
- The data is used solely for the FSA purposes.



**Option 1**: Creation of a new FSA-owned online reporting tool - data collection only



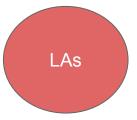
Allows users to inform FSA about their experience

Fails to deliver on user need that something will be done



Provides data to inform trends and patterns

Doesn't support individual, localisted enforcement



Would not be passed to LAs

May cause a serious issue with preventing investigation (due to people only reporting to the FSA not LAs, but believing something would be done)



#### Option 2

Creation of a new FSA-owned reporting tool that automatically sends data to LAs

- No triaging, but individual case data is forwarded to the relevant LA.
- The local authority will be responsible for investigating individual cases.

**Option 2**: Creation of a new FSA-owned reporting tool that automatically sends data to LAs



Allows users to report an incident and enables investigation to improve prevention and fulfil consumer expectations that 'something is being done'



Provides data to help with identifying trends and patterns plus potentially helps with prevention if acted upon



Provides all LAs with a standardised service for receiving reports from consumers via the FSA and supports investigation



#### **Option 3**

Creation of a new FSA-owned reporting tool that leverages IRU triaging to send data to LAs

- Incident and Resilience Unit (IRU) triages all individual reports.
- Where relevant, cases will be forwarded to the corresponding local authority to investigate.
- IRU maintains overall responsibility for managing/coordinating each case.
- The new reporting tool will need to operate (align) within the IRU's current incident process.



**Option 3**: Creation of a new FSA-owned reporting tool that leverages IRU triaging to send data to LAs



Allows users to report an incident and and enables investigation to improve prevention and fulfil consumer expectations that 'something is being done'



Provides data to support FSA goals

Aligns with current IRU processes and procedures

Concerns relating to if and how this would work with the existing IRU resource / workloads



Provides all LAs with a standardised service for receiving reports from consumers via the FSA and supports investigation



#### **Option 4**

Creation of a new FSA-owned reporting tool with a dedicated, new triage team

Similar to Idea 3, but with the creation of a new 'team' within the FSA instead of the IRU taking responsibility.



**Option 4**: Creation of a new FSA-owned reporting tool with a dedicated new triage team



Allows users to report an incident

Enables investigation to improve prevention and fulfil consumer expectations that 'something is being done'



Provides data to support FSA goals

Could align with current IRU processes and procedures or these could be designed for the specific needs of this reporting service

Opportunity for including outcome feedback from LAs into data analysis



Provides all LAs with a standardised service for receiving reports from consumers via the FSA and supports investigation



#### **Option 5**

#### FBOs share incident data with the FSA

- FBOs share incident data relating to allergic reactions to food (reported to them by customers) with the FSA.
- No subsequent FSA triaging or investigation associated with this data.

#### **Option 5**: FBOs share incident data with the FSA



Unlikely, as it will be impossible to control quality and consistency of the user experience, particularly regarding outcomes. Likely to be variable at best



Potentially could help contribute to policy making but will be dependent on quality and consistency of data.

Potential for bias is quite high and would have FSA resource implications

Getting standardised data will be difficult and data will be submitted voluntarily



Does not support LA investigation requirements -data would not be consistent and the data source (FBO) is anonymous



#### **Option 6**

#### Local authorities share incident data with the FSA

- Local authorities share incident data relating to allergic reactions to food (reported to them by members of the public) with the FSA based on their current processes and capabilities.
- Responsibility for following up on individual cases will remain with the LA.
- No subsequent FSA triaging or investigation associated with this data.



#### **Option 6**: Local authorities share incident data with the FSA

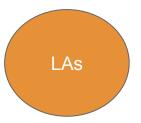


Will require wide spread campaigns to raise awareness about reporting as current volumes are low



Issues with receiving data in a consistent format to support analysis

Issues with low volumes



Helps provide some clarity and guidance on policy making

Limited due to previous point



#### **Option 7**

#### Develop a clinical reporting process with the NHS

- Develop a clinical reporting process with the NHS to share patient data relating to allergic reactions to food with the FSA.
- Any subsequent investigation and/or follow ups will need to be determined as the option is developed.

#### **Option 7**: Develop a clinical reporting process with the NHS



Likely to only support people who have suffered a serious allergic reaction



Range of data will be limited to clinical cases only and will not provide information on mild reactions and nearly avoided incidents



FSA would need to consider processes for enforcement / follow up action associated with NHS reporting and develop mechanism for sharing the data with LAs



#### **Option 8**

#### Conduct user surveys to provide allergic food reaction data

- Conduct regular, targeted user surveys to obtain information in support of FSA policy formation.
- Could be on a planned and/or adhoc basis frequency to be determined.
- Will be data gathering exercise only.



### Impact assessment - results

### Option 8: Conduct user surveys to provide allergic food reaction data



Will not meet user need of wanting to be able to report an allergic reaction to food



Good way of capturing additional, supporting data

Likely to be resource intensive to create, share and analyse results

Could fatigue respondents with regular similar surveys



May help to shed light on areas that could affect future policy or advice

Won't result in any investigation



### Summary

Option	Description	Users	FSA	LAs
1	New tool data collection only			
2	New tool, no FSA triage data forwarded to LAs			
3	New tool, triaged by IRU, some cases forwarded to LAs			
4	New tool, triaged by new dedicated FSA team, some cases forwarded to LAs			
5	FBOs share their incident data with the FSA			
6	Develop a clinical reporting process with the NHS			
7	Local authorities share their incident data with the FSA			
8	Conduct user surveys to provide allergic reaction data			

NOTBINARY



#### **Recommendation One**

We recommend the creation of a new, FSA-owned, online reporting tool, which captures the end user data and shares the data with the relevant local authorities meets the end user needs, FSA needs and local authorities.

This is Option 2, as presented.

It will require some manual resources to oversee edge cases, manual interventions and resolving incidents where the tool goes down.

The solution will need to be developed in partnership with local authorities to determine their data requirements.

#### **Recommendation Two**

We recommend developing a new, FSA-owned, online reporting tool, which captures the end user data, shares this with the relevant local authority but the FSA maintain the overall responsibility for managing each case. This option will meet the end user needs, FSA needs and local authority needs.

This is option 4, as presented.

It would involve FSA triaging, processing of free text and maintaining a connection with the case via the relevant local authority.

The solution will need to be developed in partnership with local authorities to determine their data requirements.

#### **Recommendation Three**

The FSA should also seriously consider using clinical data to help inform policy relating to allergic reactions to food.

Clinical data represents the most serious allergic reactions to food and therefore must be included if the FSA wants a complete data set for determining policy. The FSA is unlikely to get data on serious reactions and fatalities without this data.

This should be used in addition to the recommended reporting tool.

#### **Recommendation Four**

The FSA should continue to engage with FBOs and encourage voluntary sharing of their incident data, where FBOs are happy to do so. This data could provide some additional, informal insights.

We recognise the importance of maintaining a healthy dialogue with the industry. However, due to the concerns and challenges of generating consistent, unbiased quality data from FBOs, any data shared by FBOs should be treated anecdotally.

This should be used in addition to the recommended reporting tool.

#### **Recommendation Five**

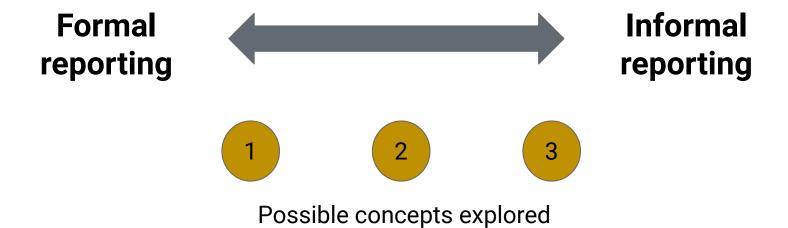
The FSA should also use surveys for augmenting data relating to allergic reactions to food.

This should be used in addition to the recommended reporting tool.



# Design concepts

### What could a solution look like?



### Concept One

### A government branded, form based service

#### Pros

- Most clearly communicated
- Controlled capture of information
- Optimised for automation / reducing manual processing
- Strong expectation setting
- Familiar
- Good legitimacy govt branded
- Opportunities to tie in with gov.uk improved awareness / discoverability

#### Cons

- Traditional form based and formal feel
- Least optimised for context could result in a 'I'll do it later / can't be bothered' mentality
- Most onerous on user
- Least engaging (added value)

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Tell us

Why tell us



Tell us about a food allergy incident

Help and advice

Help councils to work with restaurants to improve food safety



News and updates

Help the FSA spot trends and patterns and gather information that will shape future policy and guidance

proposition

Expectation setting / know

how

Value

proposition

Semantics
Inviting + non
threatening

Value

#### What you can tell us about

Help to protect others and

ensure it doesn't happen again

- An allergic reaction you experienced to eating a food or a food item from a restaurant, marketstall, canteen, takeaway, supermarket or grocery shop or any packaged food
- An allergic reaction you managed to avoid but would have had if you had eaten a food or food item from any of the above places
- · An issue with the label on a packaged food item

#### What to expect

1 The information you provide will be shared with the local council for the area where you ate the food

2 ) The council will investigate further and may decide to pay an announced or unannounced visit to the premises

- In most cases the council will work with the food business to improve practices
- · If required, it may take any necessary further action
- · The council may get in touch with you if they need further information and if you have agreed to share your details

Outcomes / value proposition

- The council will continue to engage with the food business as part of their routine inspections or may schedule additional visits / engagement if necessary
- The council and the FSA don't deal with any claims for compensation or reimbursement. This should be pursued separately with the manufacturer or retailer.

Mitigation against false reporting

#### What information we'll ask you for

- The name of the food business where you bought the food and the area or address
- Your age range. You can also choose to provide contact details for the council if you would like so that they can contact you if needed
- · What you ate and when you ate it
- The onset of your symptoms (if you ate the food) and what symptoms you experienced
- · Any treatment you had, if you sought treatment
- · A brief description about what happened
- · Any photos you may have of the food, packaging or anything else you want to tell us about



#### Tell us by post

Offline accessibility

You can download a Food Allergy Incident Form and send it to us at

Building Number Address Post Code

### What was the issue with?

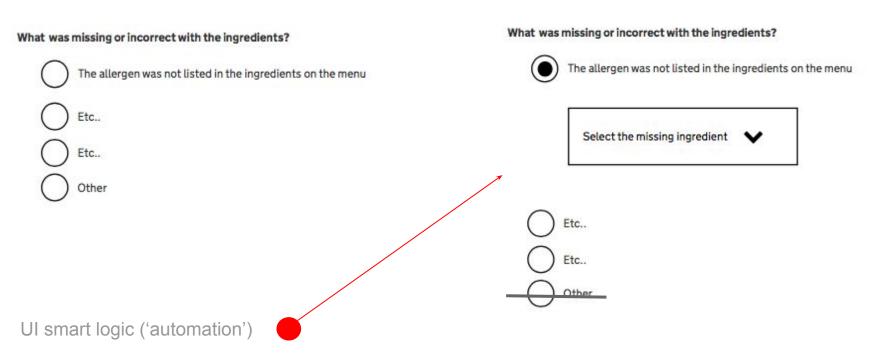
Decision trees

A food item or meal

A label on the package of a food item or packaged meal

Ingredients on a restaurant menu

Etc..



An 'Other' category which would require manual processing could be avoided here because - if the user selects other from the dropdown list we can infer that the issue is not with one of the 14 allergens and can treat this information in a specific way or 'exit' the user out of the service. The same strategy could be used to identify intolerance reports from allergic reaction reports using symptom onset

#### What was missing or incorrect with the ingredients?



The allergen was not listed in the ingredients on the menu

Other 🗸



By law a food business is only required to show allergy ingredients on their menu for the 14 allergens listed in the options above.

The local authority for this food business will not be able to investigate further but the FSA would still like to hear about your symptoms to help us gather information about future areas of research that may influence future policy and guidance.

You can continue by completing the remainder of the form below or view our guidance on topics to help you with food allergy management. These will also be available at the end of the form.

See our food allergy guidance and resources

Etc..

Etc..

Other

In-experience outcome and educating for informal prevention

Thanks for sending us information about your food allergy incident.

We will use this information to analyse patterns and trends, learn more about occurrences of allergic incidents which will help with future prevention, policy and guidance.

'Soft' outcome
-acknowledgement
of receipt -- sense of
'Something will be
done'

#### Food allergy guidance and resources

Information on the 14 allergens

How to ask for allergy information at restaurants

Food labelling guidance - what to look for when buying packaged food

Staying safe while eating out - things to think about when eating out that you may not be aware of

Food ingredients translation cards - available in x languages to help you inform other when you are eating about your allergy requirements

Etc



### Concept Two

### An online tool for quick reporting

#### Pros

- Easy and quick
- Controlled capture of information
- Optimised for automation / reducing manual processing
- Mobile optimised, good for contextual reporting
- Less onerous and more engaging
- Opportunity for value add
- Minimal typing

#### Cons

- Less traditional and formal
- Less opportunity for messaging and guidance
- Potentially less in depth
- More complex to build and change

#### What happened?

I had an allergic reaction

I avoided having an allergic reaction

#### Where did you eat or purchase the food item from? Add address manually instead



Experience is more informal and intuitive (less to read). Users jump right in without preamble

#### XYZ food business

100 Farringdon Rd EC1 2BC

#### Type of food business

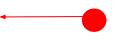
Help me choose the right category



#### I ate food containing

Help and guidance on the 14 allergens





Inputs
optimised for
mobile to
reduce the
need to type
and encourage
reporting as
soon as
possible

#### Name of the meal

Curry delight

#### What happened

Provide a brief description of how you came to eat or almost eat the food etc...

I ate the food assuming it has coconut milk but they used milk instead! Coconut milk was listed on the ingredients on the menu. When I confronted them they denied it.



To enable council investigation

#### My symptoms started

Instantly

after 24hrs

After a few hours

within 24hrs

Can build in logic to support in-experience guidance and outcomes - for example, using criteria to determine if

symptoms

suggest allergy

or intolerance

#### **I experienced**

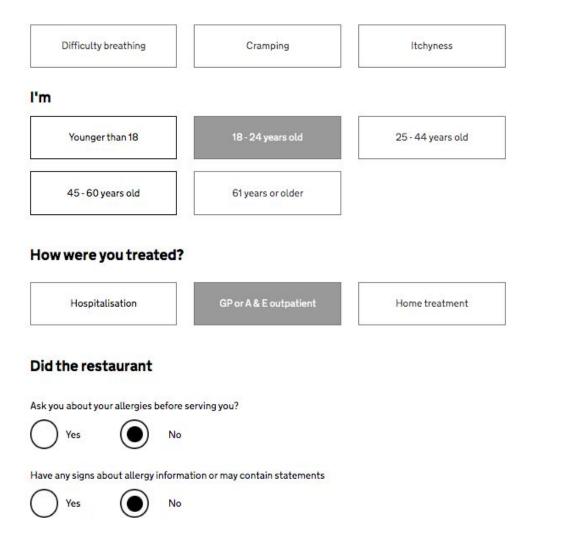
Vomiting

Swelling

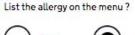
Skin rash

Nausea Bloating

Dizzyness



Experience is consistent so users have already learnt how to fill in the form and it should be quick, accurate and capture consistent data







#### Did you





#### Any photos to share with us?

Upload / add photo

#### Allow the council to contact you?

In order to investigate fully the council may require more information from you







Decision trees and conditional logic are possible so that users only see what is relevant, but they are aware of the consequence of their choices

#### What to expect



The information you provide will be shared with the local council for the area where you ate the food



The council will investigate further and may decide to pay an announced or unannounced visit to the premises

- · In most cases the council will work with the food business to improve practices
- · If required, it may take any necessary further action
- The council may get in touch with you if they need further information and if you have agreed to share your details

3

The council will continue to engage with the food business as part of their routine inspections or may schedule additional visits / engagement if necessary



The council and the FSA don't deal with any claims for compensation or reimbursement. This should be pursued separately with the manufacturer or retailer.



Outcomes / value proposition



Submit

### Concept Three

### Leveraging social media for reporting

#### Pros

- Very easy to do
- Quickest form of reporting
- Many people naturally turn to social media to complain
- Quick to set up
- Good additional channel and stream of information

#### Cons

- Less control
- Less reliable and usable information
- Less in depth
- Will exclude segments of people not using social media
- Likely to get a lot of noise

### It starts with a strong awareness campaign

This would be beneficial and necessary for all 3 reporting approaches...

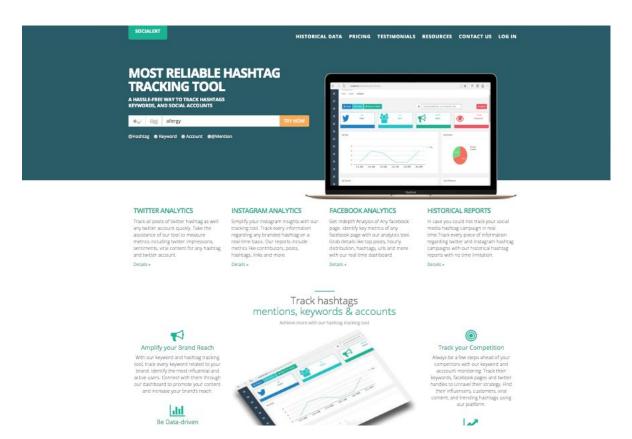


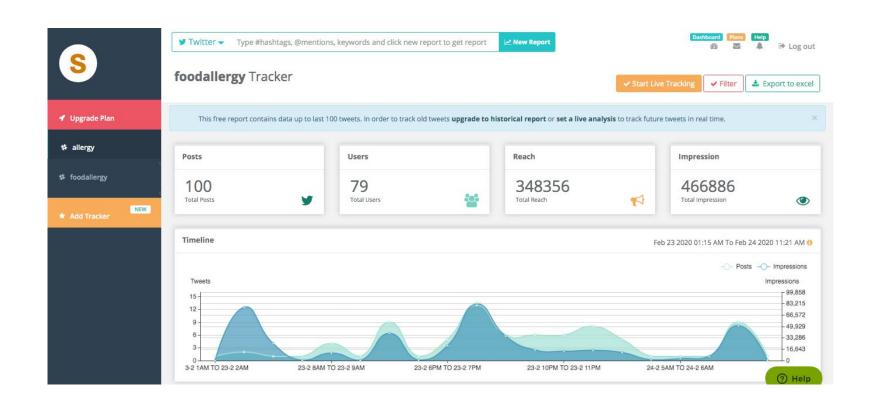


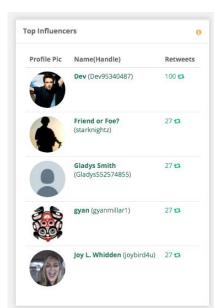


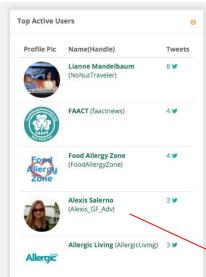
# Create a reporting hashtag for people to use (spread through the campaign) and set up social listening

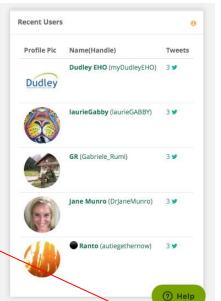
'Reports' can then be triaged and sent to councils etc... Mentions can be listened for as well



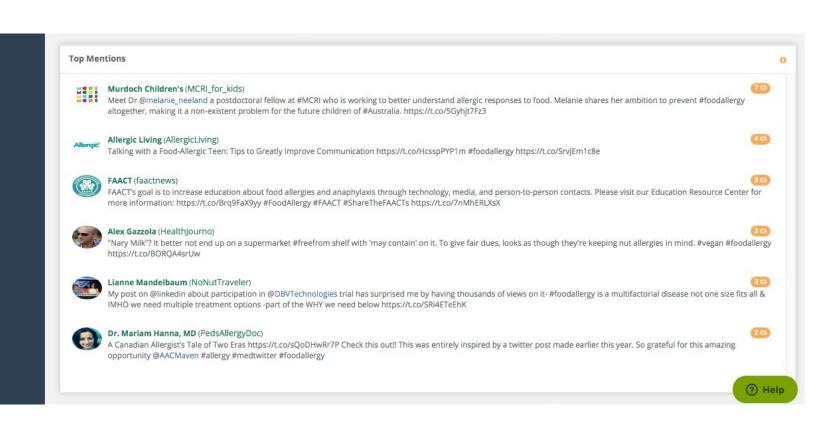


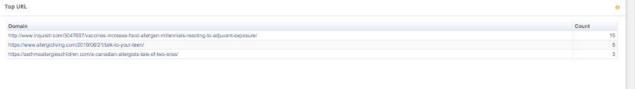




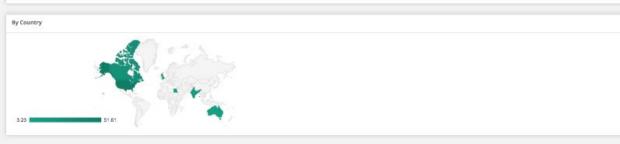


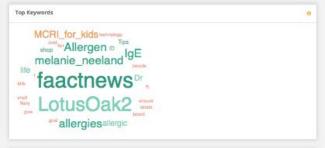


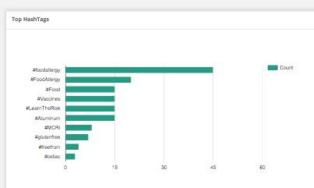


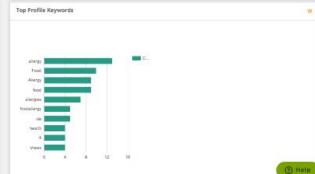




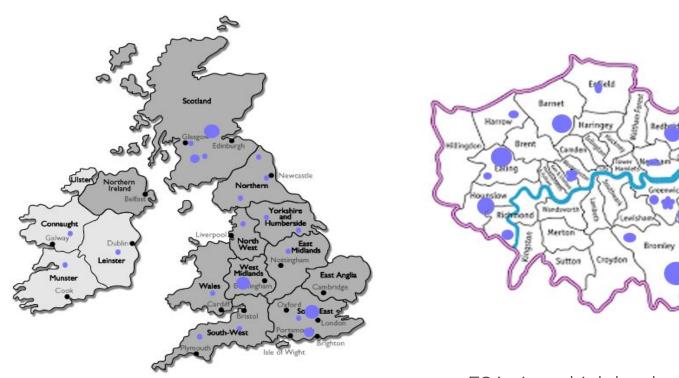








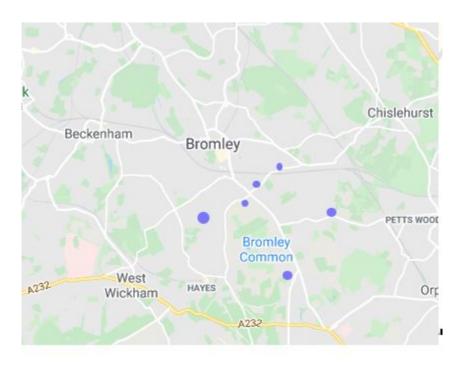
### Analytics - LA and FSA dashboards



FSA view - high level nationwide

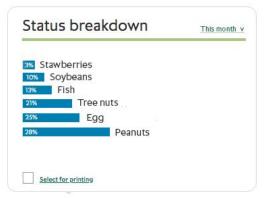
Havering

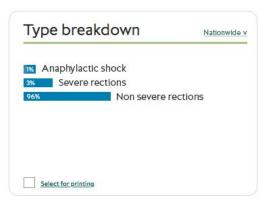
Bestey



Council view - more granular but area specific









Dashboards can be used to highlight information to help spot trends and hotspots and could be configured to a FSA and council view with ability to change certain parameters, drill down into more detail and generate reports

## Next steps



### Next steps

- Complete Discovery <u>wiki</u> (project repository)
- 2. 'End of Discovery' retrospective Wednesday 4th March
- 3. Circle back in with interviewees with an update on the Discovery work
- 4. Discuss and agree whether to proceed to Alpha

# Alpha considerations

### What is an Alpha?

Essentially, we **try out different solutions** to the problems we learnt about during the Discovery.

#### The means we will:

- Build prototypes
- Test different ideas
- Challenge the way things are done
- Explore new approaches.

Typically 6-8 weeks





A short phase, in which you start researching the needs of your service's users, find out what you should be measuring, and explore technological or policy-related constraints.

Learn about the discovery phase

#### Alpha

A short phase in which you prototype solutions for your users needs. You'll be testing with a small group of users or stakeholders, and getting early feedback about the design of the service.

Learn about the alpha phase

#### Beta

You're developing against the demands of a live environment, understanding how to build and scale while meeting user needs. You'll also be releasing a version to test in public.

Learn about the beta phase

#### Live

The work doesn't stop once your service is live. You'll be iteratively improving your service, reacting to new needs and demands, and meeting targets set during its development.

Learn about the live phase

### Potential Alpha things to explore

- How involved does the FSA want to be with individual cases?
- What sort of 'outcome' details do users want to hear about?
- The specifics of how the service would work alongside (or not) the Report a Food Problem tool
- How would users be affected if the online part of your service had technical problems
- Understand how the service will deal with any immovable constraints in legalisation, contracts or legacy technology
- How the FSA will open source the service code
- Identify the riskiest assumptions about the new service and testing them.
- How you'll identify, deal with and stay up to date with potential threats to the service
- Understanding how the online and offline parts of the service link together
- A detailed plan about how to support accessibility and digital inclusion
- What sort of programming tools you'd like to choose for a potential beta





Thank you