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1 **Mobilising knowledge in public health: reflections on 10 years of collaborative working in Fuse, the**
2 **Centre for Translational Research in Public Health**

3

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13

14 **Abstract:**

15 **Background**

16 Fuse was established in 2008 as one of five public health research centres of excellence in the UK
17 funded by the UK Clinical Research Centres collaboration. The centre works across five universities in
18 the North East of England. This is an innovative collaboration and enables the pooling of research
19 expertise. A prime focus of the Centre is not just the production of excellent research, but also its
20 translation into usable evidence, a dual focus that remains uncommon.

21 **Aims/ objectives**

22 This practice paper outlines Fuse's approach to knowledge exchange by reflecting on 10 years of
23 collaborative research between academics and policy and practice partners in the North East of
24 England. We will describe the principles and assumption underlying our approach and outline a
25 conceptual model of four steps in Fuse's knowledge exchange process to develop collaborative
26 research and achieve meaningful impact on policy and practice.

27 **Key conclusions**

28 Our model describes a fluid and dynamic approach to knowledge exchange broken down in four
29 steps in the KE process that are concurrently, iterative and vary in intensity over time: awareness
30 raising; knowledge sharing; making evidence fit for purpose; and supporting uptake and
31 implementation of evidence. These steps support the relational context of knowledge exchange.
32 Relationship building and maintenance is essential for all stages of knowledge exchange to develop
33 trust and explore the meaning and usefulness of evidence in a multi-directional information flow
34 that supports the co-creating and application of evidence.

35 **Key words:** Knowledge Brokering; Translational Research; Public Health; Embedded Research

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47

48 **Background**

49 *1.1 Aims and objectives*

50 Fuse was established in 2008 as one of five public health research centres of excellence in the UK
51 funded by the UK Clinical Research Centres collaboration. The centre works across five universities in
52 the North East of England. This is an innovative collaboration and enables the pooling of research
53 expertise. A prime focus of the Centre is not just the production of excellent research, but also its
54 translation into usable evidence, a dual focus that remains uncommon.

55 The challenges of using research to inform policy and practice are well documented, including in
56 public health where the evidence base for interventions or programmes is patchy or contested. The
57 evidence base may not address the precise questions that stakeholders want answered. Research
58 may not appear to be relevant to the local context and may be subject to social and political
59 influences (Author's own, 2017).

60 In response to these challenges, several models and frameworks have been developed in recent
61 years that try to define the translational research process. Extensive reviews of this rapidly growing
62 literature have produced various typologies (Nilsen, 2015), categorisations (Tabak et al., 2012) and
63 archetypes (Davies et al., 2015). While these reviews are helpful for clarifying different components
64 of implementation strategies and provide some guidance on different steps in the translational
65 process, they are equally bewildering for practitioners and researchers venturing into the field of
66 translational research. They find it hard to choose an appropriate model when many of the
67 suggested categorisations and dimensions overlap in practice. Moreover, many of these models and
68 framework remain at a conceptual level and do not describe in practical terms what research
69 translation on the ground looks like (Masood et al. 2018). There appears to be a growing gap
70 between a prolific conceptual literature among academics and a distinctive field of practice which is
71 based on pragmatism and experimentally-led strategies and actions (Davies et al 2015), which is
72 ironic given the bridging aim of translational research.

73 Therefore, we aim to do make a humble contribution to bridging work in this paper by reflecting on
74 a practice-based model of translational research that has been developed in Fuse over the last ten
75 year. We did not aim to develop a new model or use an existing theoretical framework that we could
76 adapt to our purposes, but developed our model more reflexively over the years in conversations
77 between core members of our research centre, similar to other models which have been developed
78 this way, such as the Stetler Model (Stetler, 2011) and the Iowa Model (Titler, 2001). We
79 acknowledge that these reflections are context-specific, developed by a particular group of people at
80 a particular time, but hope that they provide some insights for other practitioners and researchers
81 seeking more specific information on 'how to do' translational research.

82 In our reflections, we were keen to understand and make explicit our own tacit knowledge of trying
83 to mobilise research evidence in public health. This type of knowledge is often overlooked in the
84 development of models and frameworks (Kothari, 2012). The intrinsic motivations, beliefs and ethos
85 of knowledge mobilisers are important components of any translational research strategy but are
86 difficult to find in the literature and tend to be skirted over in traditional training schemes, which
87 focus more on practical activities, tools and approaches (Ward, 2017). These reflections can point in
88 turn to relevant literature and methods (as we will do in our discussion section).

89

90 *Aims*

91 In this paper, we will outline a practice-based action model (Nilsen 2015) that details the specifics of
92 adapting and tailoring research evidence. We will outline Fuse's approach to knowledge exchange by
93 reflecting on 10 years of collaborative research between academics, policy and practice partners in

94 the North East of England (and beyond). We will describe the principles and assumptions underlying
95 our approach and outline a conceptual model of four steps in Fuse's knowledge exchange process.

96 These principles and assumptions were developed over a number of years in meetings of the
97 Knowledge Exchange Group within Fuse, a group of core staff across the five North East Universities
98 with an interest in knowledge exchange that was set up to support translational research across the
99 different research programme within the Centre (KEG, 2014). The principles guided the development
100 of our model as the underlying rationale for each step, helping us to make explicit our tacit
101 knowledge, beliefs and ethos on translational research.

102

103 *1.2 Principles and assumptions underlying our strategy*

104 We acknowledge that:

- 105 Multiple types of knowledge exist and are used differently by stakeholders across many
  106 contexts.
- 107 Exploring and incorporating such knowledge is vital to developing useful, acceptable, and
  108 feasible services and interventions in public health.
- 109 This requires expertise to be shared across professional, organisational and sector
  110 boundaries.
- 111 Knowledge exchange is a social process, requiring trusting relationships to be developed and
  112 maintained.
- 113 Opportunities for sharing knowledge need to be actively created and fostered over time.
- 114 Sharing knowledge is not sufficient for impact. For instance, research evidence is typically
  115 not readily applicable to practice but needs to be actively mobilised and made fit for local
  116 commissioning and intervention development purposes (Author's own, 2018).
- 117 To support the uptake and implementation of evidence, ongoing support and capacity
  118 building is required, alongside understanding of the local context. Implementation takes
  119 time.
- 120 New ways of producing and using evidence are critical to delivering rigorous, relevant and
  121 timely research that makes a difference and has an impact on public health outcomes. For
  122 instance, co-located embedded research (Author's own, 2018) and participatory approaches,
  123 involving research users and producers working together.
- 124 There is no one size that fits all: diverse approaches in knowledge exchange are needed.
  125 There is no single interface or a single key issue for collaboration between decision makers,
  126 practitioners, policy makers and public health academics.

127

128 **2. Steps in building collaboration/ knowledge exchange**

129 Our approach to impact has been to use practitioner, policy and public engagement, through a fully
130 developed communications function and knowledge brokerage to co-create relevant research,
131 influence policy and practice debates and promote evidence uptake.

132 These functions support four steps in our knowledge exchange process (see Figure 2):

- 133 Step 1. Awareness raising: making evidence users and sponsors (funders and support
  134 organisations) aware of Fuse, our research and engagement opportunities, including early
  135 involvement for our partners to set the agenda for future research.
- 136 Step 2. Sharing knowledge: Creating opportunities for research users and producers to come
  137 together to explore opportunities for mutual learning and share knowledge through
  138 collaborative events, our responsive research service (AskFuse), patient and public
 139 involvement etc.

4

140   • Step 3. Making evidence fit for purpose: Localising and tailoring evidence through a
141   dedicated knowledge broker, embedded research, and by increasing awareness of
142   contextual pressures in health policy, practice and academia.
143   • Step 4. Supporting uptake and implementation of evidence: developing long-term
144   relationships with policy and practice partners to co-create evidence, build capacity and
145   change practice and policy.

146   We will discuss each step below in more detail.

147

148   *Figure 1. Fuse Knowledge Exchange model*

149
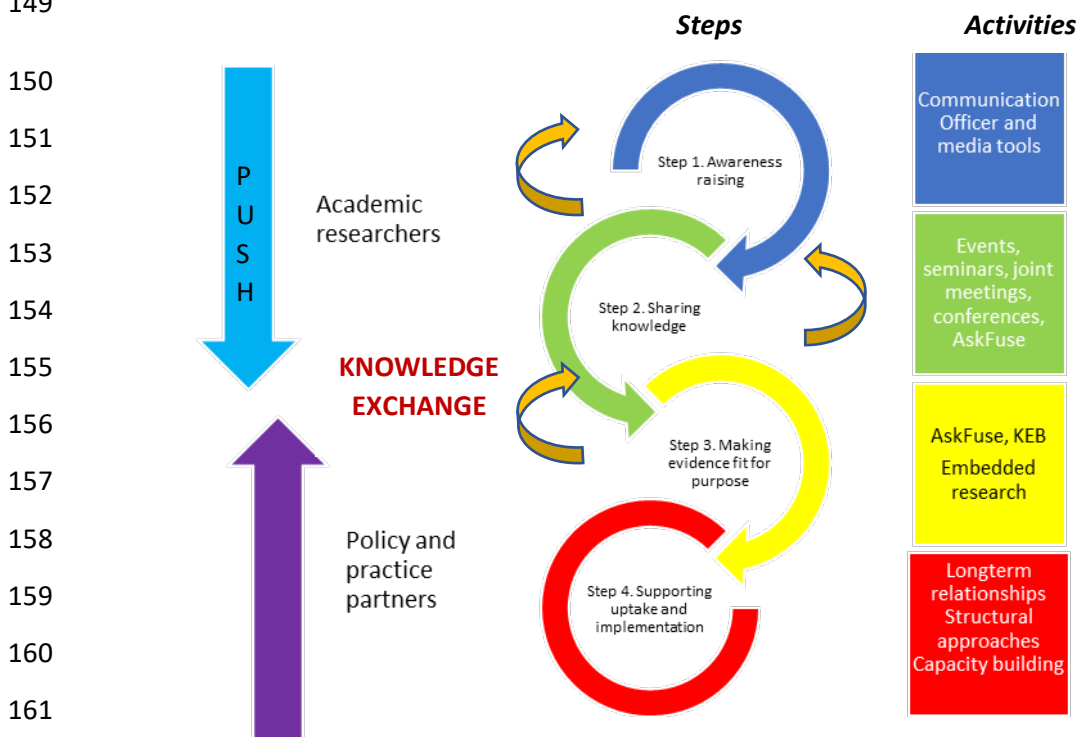
163   **2.1 Step 1: Awareness raising**

164   Awareness raising and providing evidence of value have been major planks of our strategy. A wide
165   range of methods have been utilised to promote Fuse, disseminate its work, and link its activity with
166   public, policy and practice partners and jointly develop research partnerships. This work is led by a
167   dedicated Communication Officer (Author's own, 2018). These include:

168   • The Fuse website, including use of film and animation to deliver key messages
169   • Jointly authored articles in academic journals
170   • General branding (e.g. business cards, letterheads, PowerPoint templates)
171   • Attendance at conferences and academic events
172   • Participation in public and professional events (e.g. practitioner conferences, science
173   festivals)
174   • Participation on national committees and advisory boards (e.g. funding panels of UK
175   research councils)
176   • Press releases/media events
177   • Flyers and Fuse briefs (http://www.fuse.ac.uk/research/briefs/)

178   •   Electronic newsletters – inFuse

179   •   Social media, e.g. Twitter and Facebook

180   •   Award winning Fuse blog (http://fuseopenscienceblog.blogspot.com/)

181 Awareness raising also includes facilitating an increased mutual awareness of the structures and
182 challenges and competing priorities under which public health professionals and researchers work
183 (e.g. a different evidence-based cultures in Local Authorities, more rigid tendering processes, while
184 fewer financial resources are available in a climate of austerity). Conversely, public health
185 professionals do not always understand the high costs of research (or have access to the resources
186 needed), the rigorous demands of research governance and ethics procedures and associated
187 demands on time, and institutional pressures to publish in high-impact journals (Author's own,
188 2017).

189 To overcome these structural issues, opportunities are required for exchange, such as open forums
190 and events (see Step 2) and embedded research opportunities , for instance by academic
191 researchers spending time in policy or practice settings and vice versa (see Step 3).

192

193

194 ***2.2 Step 2: Sharing knowledge***

195 Whilst we continue to support awareness raising through our communications team, we also work in
196 different ways to deepen collaboration. These approaches enable the two-way communication of
197 views, the sharing of different knowledge types and joint activity. Some examples of these are given
198 below.

199

200 *Quarterly Research Meetings (QRMs)*

201 Fuse QRMs are planned and delivered in conjunction with a policy or practice partner around a
202 chosen theme. They provide opportunities for dissemination of research, dialogue about the
203 implications for policy and practice, making new and strengthening existing contacts, and building a
204 dialogue around research results while identifying gaps to address in potential future projects. In
205 short, they act as a forum for knowledge exchange. Fuse QRMs have continued to draw in and build
206 collaborations with policy and practice partners, and partnerships are deepened by working
207 together on the development of such events.

208

209 *Development of an institutional knowledge brokering service*

210 Following consultation with local senior decision-makers regarding their research needs, our
211 responsive research service, AskFuse, was established in June 2013 as a portal through which policy
212 and practice partners could approach Fuse and make enquiries or seek help about research or
213 evidence needs (Author's own, 2018).

214 AskFuse provides access to academic expertise and assistance of all kinds but it has gradually
215 transformed from simply being a place where requests for small local evaluation projects to a safe
216 place for serious conversations about how to develop the evidence base or case for commissioning
217 and planning decisions (Author's own, under review).

218 Responsive research services like AskFuse provide an important back stage for negotiations between
219 academics, practitioners and policy makers, away from public view, where informal conversations
220 can get at the heart of what policy makers want to know or do, and what limits there might be

221 around academics' ability to respond to that. We have identified five distinct functions that
222 responsive research services could provide back stage:

1. Providing a conversational space for health practitioners and academics in which to meet and engage in conversations about local research needs;
2. Discuss the different audiences each actor communicates with (e.g. elected members, funders, service commissioners, service users);
3. Rehearse and synchronise their performances across different stages (e.g. conferences, research events, council sessions, staff meetings);
4. Share and hide 'destructive' information about their performances (e.g. lack of funding, limited appetite for collaboration); and
5. Negotiate new evidence bases by considering multiple types of evidence and applying new methods to make them accessible and affordable to different contexts and need (Khangura et al., 2014) (e.g. affordability versus impact).

234 These functions were generated by analysing conversations between the AskFuse Research Manager
235 and policy and practice partners accessing the service between June 2013 and March 2017 (Author's
236 own, under review). In our analysis, we applied Goffman's dramaturgical perspective (1959) to
237 reframe these conversations as different performances by academics, practitioners and policy
238 makers that need to be effectively managed, using Goffman's front and back stage analogy. The
239 AskFuse service gives the performers access to an informal conversation space that enables them
240 partners to reflect on performances gone wrong, helps them construct new impressions that will
241 help them to cope when acting on different front stages to different audiences.

242

2.3 Step 3: Making evidence fit for purpose

244 However, sharing knowledge alone is not sufficient for impact. For instance, research evidence is
245 typically not readily applicable to practice but needs to be actively mobilised and made fit for local
246 commissioning and planning purposes. We have developed two mechanisms for this within Fuse:
247 employing a fulltime Knowledge Exchange Broker and creating 'researchers-in-residence' or
248 embedded research posts.

249

Fuse knowledge exchange broker

251 Fuse created the role of knowledge exchange broker (KEB) to assist practitioners in the use of
252 research evidence. A defining key task of the role is to facilitate and enable the use of research
253 evidence (and other types of information e.g. local statistics) in decision-making processes, i.e. they
254 mobilise evidence. KEB roles can act as the go-between or mediator to translate differences in
255 performances between policy makers, practitioners and academics into a collective acceptable
256 presentation. Moreover, KEBs can help to make evidence fit for local commissioning and planning
257 purposes by localising evidence (relate evidence to local context and needs) and tailoring it (present
258 actionable messages). It is these steps that render evidence both useful and usable in decision-
259 making. KEBs can help to inform what knowledge is relevant in a particular context (localising), while
260 using local relationships to design and deliver actionable messages (tailoring). Understanding,
261 identifying and supporting the role of KEBs is key for successful knowledge mobilisation. Their
262 expertise and knowledge could be used more systematically to champion a research positive culture
263 and infrastructure within public health organisations that encourages knowledge sharing and
264 mobilisation (Author's own, 2018).

265

266

267 *Embedded researchers*

268 Fuse has gathered expertise in embedded research by working in collaboration with Local
269 Authorities in North East England. With a seat alongside local authority partners, and a remit to help
270 develop researchable questions, embedded researchers can introduce local research evidence at the
271 point of decision-making helping to inform the shape and future of local public health provision.

272 Embedded researchers are defined as individuals who are either university based or employed with
273 the purpose of implementing a collaborative, jointly owned research agenda in a host organisation in
274 a mutually beneficial relationship (McGinity and Salokangas 2014). Embedded research (ER) is
275 recognised as one way to strengthen the integration of evidence into public health practice, where
276 the researcher is part of a team that generates and uses research results. This type of research is
277 attracting growing interest as an example of a joined-up approach to knowledge production and use,
278 which takes account of context and stakeholder interests. Relatively little attention has focused on
279 the experiences of ER in public health in local authorities. It has been suggested that public health
280 deserves 'special attention' given the ways in which tacit knowledge is embedded in programme
281 planning and delivery, the importance of local government's organisational context, politics, and the
282 wider challenges of achieving large-system transformation in health care and sustaining
283 organisational culture change (Author's own, 2018).

284 ER's potential lies in its ability to facilitate interactive contact, collaborative relationships between
285 researchers and end users, the involvement of decision makers in research processes and timely
286 access to research, all of which are factors associated with improved use of evidence in different
287 settings. Fuse's innovative experience of embedded research in [anonymised] Council has been
288 published in a series of co-authored papers (Author's own, 2017; 2018).

289

290 **2.4 Step 4: Supporting uptake and implementation of evidence**

291 Knowledge Exchange Broker and embedded research posts not only facilitate knowledge exchange
292 but also build longer-term relationships between academic researchers and policy and practice
293 partners. It is these long-term relationships that are required to embed the uptake and use of
294 evidence outside academia. Long-term relationships are essential for establishing trust to engage in
295 frank and open conversations about what evidence is useful, how it could be applied locally and to
296 increase mutual understanding of the structures in which each profession operates.

297

298 *New ways of producing and using evidence (co-production and co-creation)*

299 The fourth step in our model is therefore developing new ways of producing and using evidence
300 based on established relationships that respect different types of knowledge and encourage various
301 ways of applying knowledge. KEB and embedded researchers support different ways of working on
302 the feasibility, acceptability and relevance of research. This often included participatory approaches
303 (working with research users and stakeholders rather than doing research on them), which
304 acknowledge the value of professional and lay expertise and tacit knowledge. (Author's own, 2018).

305

306 *Capacity building*

307 However, these approaches need to be taken forward by professionals across academia and health
308 organisations to develop an institutional culture of knowledge exchange. Otherwise, these
309 approaches risk becoming silo-ed in separate K* functions that are not aligned and incentivised by

310 the wider structures in which they operate. This requires new skills among academic researchers and
311 wider stakeholders and therefore ongoing capacity building within organisations.

312 Capacity building in knowledge exchange skills throughout academic career pathways is essential to
313 ensure ability and interest in collaborative research with policymakers and practitioners. For a truly
314 structural approach to knowledge exchange that links various knowledge exchange activities across
315 different organisational levels and time, it will be imperative that all researchers within academic
316 institutions play an active part.

317 For instance, AskFuse brokered the funding of PhD studentships with matched funding from one of
318 the Fuse member universities to enable a value-added evaluation of public health interventions.
319 Other PhD students are exploring related translational issues: the nature of knowledge brokerage;
320 the use of quality improvement approaches; and effective ways of improving evidence uptake in
321 schools-based interventions. A public health PhD student is jointly supervised by the embedded
322 researcher in [anonymised] and an ESRC funded PhD student will start work on a project of use to
323 the Local Authority in October 2018.

324 Embedded research posts have also enabled public health staff in local authorities to get involved in
325 research and developed their research skills by learning on the job with the embedded researcher;
326 for example, by jointly completing ethics applications and co-authoring publications.

327

328 *Linking knowledge exchange activities effectively (structural approaches)*

329 Given the fluid and dynamic nature of our model, we recognise the importance of linking a range of
330 activities (a structural approach to knowledge exchange) that engage policymakers and practitioners
331 at different levels, intensities and points in their decision-making and development processes to
332 build relationships (Author's own, 2018).

333 For example, in advance of organising a Quarterly Research Meeting to promote and discuss the
334 findings from a research project with our policy and practice partners, we develop tailored research
335 briefs that summarise the research findings in an accessible and visual way, emphasising
336 recommendations for policy and practice. These research briefs are circulated at the meeting and
337 uploaded to our website to make them more widely available. Developing these briefs with
338 researchers in the centre allows for easy and quick dissemination to policy bodies and also improves
339 these researchers' knowledge exchange skills, while provides them with calling cards to initiate
340 relationships with policymakers for further collaborative research. These conversations are often
341 followed up with specific requests to AskFuse for applying the research findings in a different
342 context or conducting additional research, supporting capacity building and implementation. We
343 also follow-up events with blogs written by a practice partner, where possible, about their
344 experiences of the event and their reflections on the usefulness of the research findings and its
345 application to different contexts.

346 Developing structural approaches takes time and requires long term, trusting relationships between
347 academics, practitioners and policymakers, which can be challenging given the short time span of
348 policy cycles, lack of institutional incentives within academia and differences in personalities. This
349 might be achieved by starting small, developing co-produced projects into larger and longer-term
350 collaborations, and by securing 'quick wins' early on, such as developing helpful evidence
351 summaries. It will also take time to shift the priorities of research funders towards collaborative
352 research with policymakers. Flexible research funding schemes are needed to support these models
353 at national and local levels.

354 In summary, relationship building and maintenance is essential for all stages of knowledge exchange
355 to build trust and explore the meaning and usefulness of evidence in a multi-directional information
356 flow that support the co-creating and application of evidence.

357

358 **Conclusions**

359 As a UK Centre of Excellence for Translational Research in Public Health, Fuse has gained substantial
360 experience of undertaking research with public health colleagues. Reflecting on our practices over
361 the last 10 years, we distinguish four interconnected stages/ steps in the knowledge brokering
362 process: awareness raising; knowledge sharing; making evidence fit for purpose; and supporting
363 uptake and implementation.

364 Initial activities in the first five years of operation focused on steps 1 and 2 by raising awareness of
365 the centre and its research activities through our website, social media platforms and research
366 briefs, and by discussing our research with practice and policy partners at Quarterly Research
367 Meetings and other events. In these interactions it became clear that our partners were looking for
368 additional support to use new and existing evidence and tailor its messages for the local context
369 (step 3), which led to the development of the AskFuse service in 2013 as a means to continue the
370 conversations with our partners about particular questions and needs.

371 The development of step 4 (implementing and sustaining) came out of reflections in a joint paper
372 (Author's own, 2017) with knowledge brokers from other UK Centres of Excellence in Public Health
373 research. Our collaborative discussions highlighted the importance of linking different knowledge
374 exchange activities together in a structural strategy, utilising the four interconnected steps in our
375 model, to engage with different policy makers at different levels and times in the decision making
376 process.

377 In our reflections we found the Knowledge-to-Action (K2A) model (Graham et al., 2013) particularly
378 useful as it helped us to focus on questions about how to adapt knowledge to local context and
379 tailor it to overcome barriers for action. What our model adds to this framework and other reviews
380 mentioned in the background section of this paper is a practical understanding of how research
381 evidence can be localised and tailored to address translational barriers (Mitton et al., 2007), while
382 acknowledging a more fluid process of knowledge exchange through iterative cycles of four main
383 activities that can occur concurrently.

384 In our model the four steps can feedback into each other in different directions. For instance,
385 sharing knowledge (step 2) might raise new questions about evidence and how to communicate this
386 evidence, which brings the process back to step 1 (raising awareness). Similarly, experiences of
387 embedded researchers in step 3 (localising and tailoring) suggest that this step often is concurrent
388 with knowledge sharing (step 2) as they are asked by practitioners in their embedded context to pull
389 in additional research evidence on different topics. Another example of fluidity can be found in step
390 4 (linking up different knowledge exchange activities), which has involved training for academic
391 researchers in writing lay summaries of their research, or using social media, which are used to share
392 information with practitioners (step 2), while building capacity in awareness raising (step 1)

393 Therefore, our model is closely aligned to Ward et al. (2012) knowledge exchange framework for
394 practice and policy. Their framework outlines five knowledge exchange components, with our model
395 focusing particularly on the interpersonal element of the knowledge exchange process. This element
396 is most visible in their user context, which the authors conceptualise as a social and political space
397 for knowledge exchange and dissemination. This concept foregrounds interactions, shared
398 experiences and networks, with our model highlighting various stages that are helpful in developing
399 and strengthening these interactions, experiences and networks to support the mobilisation of
400 research evidence (and other types of knowledge) into practice and policy.

401 In doing so, our model puts a strong emphasis on the relational dimension of these activities.
402 Relationship building and maintenance is essential for all stages of knowledge exchange to build
403 trust, explore the meaning and usefulness of evidence in a multi-directional information flow that
404 support the co-creation and application of relevant, usable evidence.

405

406 *Weakness and gaps*

407 A weakness of our model is a lack of robust evidence on the relationships between the underlying
408 knowledge exchange interventions and outcomes, such as increased use of research evidence in
409 practice and policy, and improved service delivery and health outcomes in the North East of England.
410 We have not so far systematically evaluated the impact of our model.

411 This is partly due to the requirements of our funding: the UK Clinical Research Collaboration required
412 annual reports that focused on traditional academic indicators of esteem, such as peer-reviewed
413 publications and obtained grant funding. Our funders do not put much emphasis on documenting
414 knowledge exchange activities and their impact on policy and practice. We are in ongoing
415 conversations with them about expanding their templates to include more space for reporting on
416 these activities and impacts.

417 What our evidence shows to date is that Fuse has been able to engage considerably with public
418 health practice and policy across the North East of England and beyond, by building capacity for
419 public health research within and outside the partner universities (16 academic appointments, 19
420 funded PhD studentships), Fuse currently has over 1,400 network members and 266 active associate
421 members. Through the AskFuse service, we have supported over 300 enquiries and helped our
422 partners to access existing knowledge or to work in collaboration to develop new research evidence
423 that is relevant, timely and tailored to their needs and enabled them to find answers to issues that
424 matter. We have also organised or supported over 400 events to date to build and maintain our
425 networks. Fuse has also been successful in bringing in excess of £200m in grant funding to North East
426 England, has had over 1,000 peer reviewed publications and has over 30,000 citations. These
427 indicators suggest that Fuse has been successful in driving change in both public health research and
428 practice, regionally, nationally and internationally.

429 However, these measures and indicators of impact are largely irrelevant for many of our policy and
430 practice partners. Focusing on them pulls academics away from the relationship-building activities
431 that are central to our knowledge exchange model. To encourage real-world impact, incentive
432 structures for academics to get involved in knowledge exchange will have to change considerably as
433 well as the systems within institutions to record these involvements. This would enable us to
434 demonstrate the impact of our work more clearly.

435 This knowledge gap is common for many knowledge exchange models and approaches (Gagliardi et
436 al. 2015) and we are trying to address this gap by developing impact case studies for various projects
437 in our centre over the last 10 years that link together various activities in each project, as outlined in
438 our model, to various types of evidence that demonstrate outcomes and sustainability in the form of
439 an outcome chain. We are guided in this by the evaluation framework that has been suggested by
440 Morton et al. (2018), which uses contribution analysis to design, collect and collate evidence of the
441 impact of KE interventions.

442

443 *Next steps?*

444 Interest is growing in AskFuse, embedded research and the proactive approach to co-producing
445 research as part of the wider knowledge exchange work Fuse has developed over the years. We are
446 keen to build on this experience and welcome views and ideas about how to take this work forward

447   alongside our partners in the National Institute for Health Research School for Public Health
448   Research (NIHR SPHR).

449   We are keen to develop and implement an evaluation framework to research more closely the link
450   between the steps in our model and the impact these steps have on the use of research evidence in
451   policy and practice. This will contribute to a better understanding of how research evidence uptake
452   can be improved, and which knowledge exchange activities are particularly useful for who, when,
453   where and in what combinations.

454

455

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