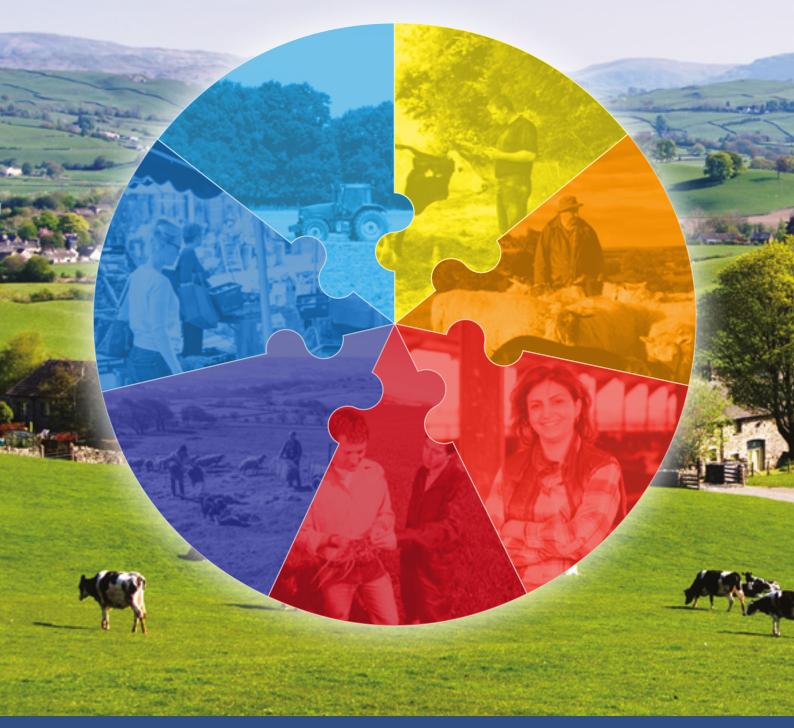




Supporting farming communities at times of uncertainty

An action framework to support the mental health and well-being of farmers and their families



Alisha R. Davies, Lucia Homolova, Charlotte N.B. Grey, Jackie Fisher, Nicole Burchett, Antonis Kousoulis

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Foreword

Farming families and rural communities are an integral part of Wales – an asset, shaping our natural environment, culture, and contributing to the well-being of the Welsh population and our economy.



For generations, farmers and their families have faced challenges, responding to these by drawing on their own strengths and support across Wales. However, often the need to also protect against the potential detrimental impact of challenge and uncertainty on health and mental well-being is not recognised.

As the UK moves towards leaving the European Union, it brings with it considerable uncertainty for individuals and sectors. The potential impact of Brexit on the farming sector in Wales in particular has been highlighted, and it is timely for us to better understand how can we best support the farming community to cope in such unprecedented times of uncertainty.

This action framework draws on lessons from across national and international examples of programmes supporting farming families and communities, and has been shaped by the excellent engagement and valued contributions of many organisations linked to the agricultural sector in Wales. The findings highlight the importance of preventing the causes of stress and anxiety amongst farming families including; viability and financial pressures, difficulties in succession planning, lack of digital infrastructure and a farming culture which can be supportive but also, at times, a barrier to seeking advice and support from others. Solutions include farmers being involved in co-creating a vision for a sustainable future of farming in Wales, and putting in place key actions to protect and promote mental health and well-being across farming communities, including increasing awareness of the impact of uncertainty on health, and the advantages of peer-to-peer models of support.

Considering the important contribution our farming families and rural communities can make to the Well-being of Future Generations across Wales, supporting the health and well-being of farmers and their families is essential. This framework will help inform action to ensure a sustainable future for farming in Wales for the next generation.

Sian Bolton

Transition Director of Knowledge Public Health Wales



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1. Executive summary

Periods of uncertainty can increase anxiety and have a detrimental impact on mental health and well-being.

Farmers and those living in rural communities in Wales are facing a period of significant uncertainty, in the short to medium term, with a potential negative impact on their mental health and well-being. In such times, efforts to address the underlying causes of anxiety and distress, and support mental health and well-being should be intensified.

The aim of this research programme was to develop a framework to support the mental health and well-being of farmers at times of uncertainty, and consider how it could be translated into action. To inform the framework, we combined an evidence review of the international literature from the past ten years, with the collective views of 45 stakeholders from across the farming sector in Wales.

Key findings

Improving the mental health and well-being of farmers and their families is of considerable importance, enhancing the resilience needed to manage and overcome uncertainty. A preventative approach is required that includes: **preventing** uncertainty and the challenges from adversity, **protecting** against the potential impact of those challenges on mental health and well-being, and **promoting** mental health and well-being amongst farmers and farming communities to strengthen resilience (Figure 1).

Figure 1: A preventative approach to uncertainty and challenge from adversity, and the impact on mental health and well-being.





Preventing uncertainty and challenge from adversity, and protecting against the impact on mental health and well-being (Section 4.1)

Reflections from the stakeholder engagement identified six key uncertainties and challenges facing farmers in Wales, and potential approaches to prevent and protect against the impact on mental health and well-being. The key challenge, in relation to Brexit, was the uncertainty and viability of farming in Wales (Section 4.1.1). However, many other challenges extended beyond Brexit, including succession planning (Section 4.1.2), regulation, administration and digitalisation (Section 4.1.3), prioritising their own health (Section 4.1.4), isolation and loneliness (Section 4.1.5) and the underlying culture and expectations in farming (Section 4.1.6). Solutions largely focused on the need for better awareness of the support available, working across organisations to recognise stress and anxiety, and for farmer-led, peer-to-peer solutions including the need for a cultural shift in accessing and accepting support, for both business and health concerns (Figure 2 see page 18).

Promoting mental health and well-being (Section 4.2.1)

Stakeholders identified four types of existing approaches that seek to address the mental health and well-being of the farming sector within Wales. These included (i) raising awareness about mental well-being and support targeted to the farming sector, (ii) increasing mental health literacy amongst support agencies, (iii) partnership working in order to integrate mental health and well-being across farm facing services, and (iv) outreach programmes. However, many of these approaches rely on short term funding, and none have been evaluated to understand the uptake and impact on the health and well-being of farmers.



International examples addressing the mental health and well-being of farmers (Section 4.2.2)

Within the international literature, the lack of robust, evidence-based programmes specifically designed to support farmers and their families was a key challenge. Three programmes which had a strong rationale, sound theoretical approach, and were developed and implemented in partnership with farmers and organisations linked to agriculture were identified, but the evidence of impact on outcomes was weak:

- Sustainable Farm Families/Sustainable Dairy Farm Families Programmes (Australia): a structured programme over three years embedding health and well-being narrative into farming through links to the farm business. The impact included identification of unmet health needs (including mental health), changes in the expressed approach to health, and small, but positive reductions in health indicators in those involved.
- Farm-Link (Australia): a programme focused on developing mental health literacy across the farming sector, and strengthening co-ordinated, cross-agency networks to facilitate access to health support, and raise awareness of mental well-being. An increase in mental health literacy and linkages across key organisations was evident, but there was no evaluation of the impact on farmers' mental well-being.
- Mental health literacy (Australia, New Zealand): programmes including Mental Health First Aid, implemented to improve mental health literacy in the agricultural sector and farming communities. Programmes have been well received by those trained, and there is evidence of improved understanding and awareness amongst trainees. However, as yet, no empirical evidence exists which suggests it has a long-term beneficial impact on the recipients' (farmers) mental health or well-being outcomes.

Common factors supporting good engagement across the agricultural sector were identified and should inform future action. These include using appropriate language, utilising peer/link workers or building on existing networks to engage with farmers, maintaining a focus on business, and ensuring co-production of programmes and tools with the farming sector (summarised in Table 1).

Table 1: Key challenges engaging farmers in health and lessons from the approaches identified within the literature review

Challenges to engaging farmers in mental health	Approaches identified in the review
Reluctance to engage in health – stoicism, tendency to self-manage, work ethic, independence, stigma	 Linking the well-being of the farming business to the farmers' resilience helps to engage them in looking after their general health and well-being (e.g. Sustainable Farming Families).
	 Using local contacts and frontline agricultural agencies can be a useful resource to assist farmers' in accessing mental health support. Building mental health literacy can give knowledge and confidence to deal with farmers' stress.
	 Use positive language - e.g. Farmstrong (focusing on assets and strengths), Good Yarn (yarn is a colloquial language for an informal discussion).
	 Include farmers in the development to tailor content to their needs.
A traditional focus on 'practical' problem solving as opposed to 'seeking help'	 Using asset-based approaches and language helps to destigmatise and encourage positive solution-focused approaches (e.g. Sustainable Farming Families, Farmstrong).
	 Provide support which is goal and action orientated.
Reluctance to engage with health professionals	 Delivery of support through non-health professionals (other professions linked to agriculture with knowledge of farming life). For example during the Foot and Mouth crisis (2001), studies suggested that farmers found it easier to talk to veterinarians and other agencies that were offering practical information.
	 Peer-led interventions can break down barriers and promote social capacity (e.g. Farmstrong).
	 Deliver through existing networks to increase participation.
Interventions or support provided is not sustained	• Draw on existing, or build strong local links between agricultural agencies, community organisations and health services leading to sustainable rural community capacity (e.g. Farm-Link).

Recommendations

This programme was undertaken within the context of the UK leaving the EU, but many of the uncertainties identified in the stakeholder engagement are longstanding issues, where Brexit may exacerbate the impact. Drawing on the stakeholder engagement and evidence review of the international literature, the recommendations to prevent, protect and promote mental health and well-being in farmers in Wales for consideration are:

A. Preventing uncertainty and challenge from adversity, and protecting against the impact on mental health and well-being

Recommendation: Co-produce the national vision for the future of the farming sector, highlighting its value as a natural resource supporting the Well-being of Future Generations (Wales) Act (1).

Recommendation: Assess progress against the Working Smarter (2) recommendations to streamline the administrative and regulatory processes in farming.

Recommendation: Ensure effective approaches are implemented to support the digital inclusion of farmers and rural communities.

Recommendation: Review the uptake, coverage and effectiveness of business skills and workplace health programmes, and co-produce models (e.g. peer-to-peer) to engage the most vulnerable.

Recommendation: Facilitate partnership working and integration of governmental and non-governmental support agencies, using co-production methods of engagement with the farming community as standard.

B. Promote mental health and well-being amongst farmers and farming communities

Recommendation: Support a farming sector led change in culture to address the stigma associated with seeking business or health advice, and support.

Recommendation: Co-produce, pilot and evaluate a peer-to-peer model to address the mental well-being of the most vulnerable.

Recommendation: Increase the mental health awareness amongst farmers and agencies who work with farmers, evaluating the outcomes on the farmers themselves.

Recommendation: Co-produce an integrated, evidence-based approach to mental health promotion and resilience building, including universal and targeted approaches, and determine the impact through robust evaluation.



2. Context

The Welsh Government, through its national strategy *Prosperity for All* is committed to improving the social, economic, environmental, and cultural well-being of the people of Wales (3).

The impact of the United Kingdom's (UK) planned withdrawal from the European Union (EU) on the health, well-being and prosperity of Wales is unclear, but the Brexit process so far has resulted in significant financial and regulatory uncertainty, in particular for farmers (4–6). Post-Brexit trading scenarios and future funding mechanisms are recognised as challenges to the Welsh farming industry (7). Public Health Wales' recent health impact assessment (HIA) of Brexit, highlighted that farmers and those living in rural communities will probably see a major negative impact in the short to medium term due to the potential loss of income streams and export markets, and readjustment to new regulatory frameworks. However, in the longer term, outlook could be positive if certain assumptions hold, on the basis of new opportunities to shape and tailor agriculture policy in Wales (6). Addressing these issues, and protecting against a potential detrimental impact on the mental health and well-being of farming communities, is needed in order to build a prosperous and resilient agricultural sector for the future (3).

Dealing with uncertainty can increase anxiety and have a detrimental impact on mental well-being (8–11), amongst farmers, their families and rural communities. Farmers experience high levels of stress and anxiety due to a lower sense of control over farming sector processes (competition, regulation and price margins) (12,13) and the wider environment effecting farming practice (disease and weather) (14–17). Farmers are at increased risk of feeling at times that life is not worth living (18,19), having a lack of social support (20), and have been identified as an occupational group at increased risk of suicide (21–23). Family members, whilst often a source of support, can also suffer mental ill-health and be in need of support (24).

Given the uncertainties surrounding Brexit and the challenges facing farmers, there is a need to better understand how to best support mental health and well-being among farming populations in Wales. The aim of this programme, funded by the Welsh Government, was to develop a framework to support the mental health and well-being of farmers at times of uncertainty, and identify considerations for translation into action. The findings will help inform building a resilient agricultural sector in Wales.

3. Our approach

To develop a framework to support the mental health and well-being of farmers at times of uncertainty, we combined an evidence review of the international literature with the collective views of representatives from across the farming sector in Wales.

Evidence review

We carried out a review using systematic principles to review the international evidence base for interventions specifically focused on supporting farmers' mental health, well-being and resilience published from 2009 to 2019 in five key health research databases. Given the time available, we have not completed a full, in-depth systematic review, or fully explored supporting evidence-based practice from non-farming populations, which may be transferrable to this population. A key limitation was the lack of robust, evidence-based programmes specifically designed to support the mental health, well-being and resilience in farmers with a demonstrable impact on outcomes. Full details of the review are available at Public Health Wales at www.publichealthwales.org/supporting-farmers-appendix^a.

Engagement with the farming sector

To ensure relevance to the farming sector in Wales we undertook focused stakeholder engagement activities in May 2019 to (i) discuss the key challenges to mental health and well-being amongst farmers, (ii) understand and map existing support, (iii) identify transferrable lessons from the evidence review (above) to a Welsh context, and (iv) considerations for a framework of sustainable action.

Organisations represented included local and national government, the farming support sector, mental health sector, local public health teams, farming unions, agricultural organisations, and farmers (see Acknowledgements Table).

A total of 45 key stakeholders contributed through the following:

- Two structured 'World Café' **workshops**^b (Welshpool (8 attendees) and Cardiff (11 attendees)). Discussions were summarised thematically and shared with attendees for comments to ensure expressed views were captured.
- Engagement at two **farming events** (Royal Welsh Agricultural Society: Smallholding and Countryside Festival (Builth Wells) and the National Sheep Association Welsh Sheep 2019 event (Caernarfon). Interviews with 19 farmers through a semi-structured questionnaire^a.
- Semi-structured^a telephone **interviews** with key stakeholders (7 interviewees), who were unable to attend the workshops.

The stakeholder discussions and interviews were analysed thematically. The quotes throughout this document are from those discussions, or from the written input captured on engagement materials.

^a The questionnaire and topic guides for the interviews are available in the online supplementary Appendix available at Public Health Wales at www.publichealthwales.org/supporting-farmers-appendix

^b World Café methodology is a flexible format for facilitating a larger group dialogue or consultation, suitable as a starting point for building engagement and exploring in depth key issues, more information available at www.theworldcafe.com/key-concepts-resources/world-cafe-method or www.mind.org.uk/media/9684240/world-cafe-method.pdf

4. A framework for preventative action

The benefits of a resilient farming sector can extend beyond farmers themselves, contributing towards the health and well-being of rural communities, local economies, and Welsh culture.

Therefore, improving the mental health and well-being of farmers and their families is of considerable importance, enhancing the resilience needed to manage and overcome uncertainty. A preventative approach is required that includes: preventing uncertainty and the challenges from adversity, protecting against the potential impact of those challenges on mental health and well-being, and promoting mental health and well-being amongst farmers and farming communities to support resilience (Figure 1).

Figure 1: A preventative approach to uncertainty and challenge, and the impact on mental well-being.



The structure of this report includes a summary of stakeholders' views on the key uncertainties and challenges to maintaining good mental health and well-being in farming communities and opportunities to **prevent** and **protect** against the impact (Section 4.1); followed by solutions to **promote** mental health and well-being, drawing from examples in Wales and the international evidence base (Section 4.2). Together this information provides the basis for a framework to protect and promote farmers mental health and well-being (Section 5).

4.1. Preventing uncertainty and challenge, and protecting against the impact on mental well-being: Stakeholder views

The key uncertainties and adverse challenges facing farmers in Wales were collated into six themes, described below, alongside the actions needed to prevent or protect against the detrimental impact on mental health and well-being.

4.1.1. Key challenge 1: Viability of the farming sector

Farmers operate at considerable economic vulnerability; less than 50% of farmers are making a living from farming and levels of borrowing have nearly doubled in the last ten years (2014/15 figures) (25). Farmers in Wales are heavily reliant on subsidies (in 2017/18, 73% of net agricultural income for all farm types was from subsidies) and the majority operate at a net loss (26,27). Over 80% of food and live animals exports from Wales go to the EU (28) meaning that market access under new or different EU trade arrangements is of key concern (29,30).

During the engagement events, financial stress was highlighted as a significant challenge. This was described in terms of low levels of current income, uncertainty about financial stability in the immediate future (for example, market price fluctuations, access to markets and funding post-Brexit (e.g. the Basic Payment Scheme^c)), and the longer term viability of the farming economic model, in particular for small traditional farms;

'We are lambing today, but we still don't know if we even have a business by end of the year'. 'The traditional farmers, uphill land farmers are already on the corporate risk register in some areas, as there is a potential of these becoming wiped out'.

Stakeholders reported that many farms are functioning in debt, forcing farming families to find additional income. Some perceived an increase in farmers changing to be part-time, or supplementing farm income with alternative income streams (e.g. contracting work; renting parts of land for grazing), or farm diversification (e.g. intensive poultry farming or leasing land for grazing). Diversification was considered by some as a potential solution, but others felt the opportunities may not be available to all (e.g. small farms in isolated areas, uphill farms) and that diversification was not without risks (e.g. requiring new long-term financial commitments, or oversaturating the market, such as poultry).

'It is a worrying trend [diversifying into chicken sheds], as this market is already becoming oversaturated, which is causing the egg prices to drop. It is also an additional long - term investment, which means you will spend the next 25 years paying off the sheds..., which can mean a significant financial burden for the farmer.'

The financial and business uncertainty often translated into farmers' experiencing high levels of anxiety, 'paralysed' decision-making, and the impact extending across the family.

^c Basic Payment Scheme represented 59% of farmers annual income in Wales in 2017-18 (Basic/single farm payment and agri-environmental payment 73%, and farm income and diversification 26%; these figures were lower for 16-17 at 79%, 96% and 4% respectively. Source: Welsh Government (26).

Opportunities identified for prevention and protection

Action: Prevention by co-producing a long-term vision for farming in Wales

Stakeholders reflected that a long-term vision for farming was needed, demonstrating the value of farming as a social, economic, environmental and cultural asset for Wales. The importance of co-producing future policy decisions with the farming community was emphasised to ensure solutions can sustain a viable farming business and be implemented effectively, rather than taking a top-down approach without practical consideration. Some also reflected that a viable business model with integrated business support, could help attract young farmers to enter the profession (linked to Section 4.1.2).

'We need a policy that values the social, economic and cultural contribution of farming to Wales: in addition to cultivating environment'.

'There needs to be a policy coproduction from the development point, with farmers at the centre, using the expertise in the industry'.

Action: Prevention by addressing the financial instability and achieving a fair price

Suggestions to achieve stability included a co-production approach to the development of future financial models (e.g. levels of funding, implementation, timeliness (to support cash flow)), and creating opportunities for farmers to gain greater price control (e.g. through setting price margins, influence price through creation of localised markets, or establishing co-operatives increasing decision-making powers). Stakeholders reflected on the need to provide farmers with a fair price for their produce, and the need to better reflect the valuable contribution of farmers/farming as a natural resource of Wales in relation to the Well-being of Future Generations (Wales) Act (1).

Action: Protection against the impact by strengthening business and financial management skills

To mitigate the impact of business and financial uncertainty, stakeholders highlighted the need to strengthen farmers' skills and support in business and financial management (including forecasting) to inform future business decisions. Stakeholders reflected on the current business support available (See Appendix, Table A1), but it was evident that each organisation represented was not fully aware of the assets available across Wales. Stakeholders also highlighted concerns about the accessibility, awareness and reluctance amongst farmers to seek and accept support early. Actions to protect included improving linkage across organisations to increase awareness and signpost to the support available, developing other approaches (such as informal peer support models) and raising awareness of the support available to wider family members, often significantly involved on the farm. For example, Farming Connect (31) support is accessible to the principal farmer and other farming family members, distributing skills within the farming business.

4.1.2. Key challenge 2: Succession planning: the next generation

In Wales, comparable to the rest of the UK, a third of farmers are aged over 65 years (32). Stakeholders reported that many farming businesses are without succession plans (33), and identified a number of key barriers to enabling the next generation to farm. These included; a farmers inability to retire because of their reliance on the farm income and lack of pension, inability to move due to a lack of affordable housing in the local area, building restrictions on farmland, a reluctance to consider alternatives away from the local community, or having caring responsibilities (for ageing parents).

'The 70 and above generation is still farming, as it is the only way of life they know. There is often no get out for the farmer, no backup plan, not really having other options than to continue farming'.

Identifying a successor is also a key challenge. Stakeholders reflected that young people see their families struggle with high workloads and pressures for little income and can be dis-incentivised from wanting to join the farming sector.

'If a farmer hasn't got a successor, it can have life-changing consequences, if they have to sell, they will have to change their whole lifestyle.'

Opportunities identified for prevention and protection

Action: Protection against the impact by encouraging early engagement in succession planning

The impact of succession decisions on mental well-being could be mitigated by early business planning, including due consideration of the farmers financial and housing situation. For farmers with no successor, stakeholders identified schemes such as *Farming Connect Venture* which matches established farmers with new entrants to the sector^d, or the *Young People into Agriculture* scheme providing Welsh Government funding to successful young farmers (aged under 40 years) to establish as a farm holding (34). However, the level of awareness amongst farmers and *existing* support organisations about such programmes, and their effectiveness was questioned.

^d In 2016, the programme engaged with 56 landowners/established farmers and 84 new entrants, and resulted in 26 matches and the establishment of three joint venture enterprises (101).



4.1.3. Key challenge 3: Regulation, administration and digitalisation

Stakeholders reflected on farming as being a highly regulated industry, including managing demands from inspections, paperwork, notifiable disease and crop pest outbreak management, and administration in some cases (if a farm spans England and Wales) across two systems. Many reflected on high levels of stress due to the complexity, and anxiety about changing regulations and fear of making mistakes that can result in financial penalties. Some highlighted incidences where an inspection led to an immediate financial penalty without a discussion on whether it could be resolved quickly, nor consideration of the significant distress caused, especially if the farmer was already struggling financially. This was a frequently described scenario, particularly amongst those farmers who have gone on to develop poor mental health, and from farming wives/partners commonly dealing with the consequences, including suicide. The move to digitalisation was also highlighted as a challenge, in particular for those with lower levels of literacy or digital literacy, or in areas with poor internet connectivity, as well as a reluctance for some, particularly older farmers, to embrace digital technology.

'We are moving more into the digital agenda, broadband and a good digital infrastructure is a key issue. A lot of older farmers still prefer pen and paper.'

Opportunities identified for prevention and protection

Action: Prevention by streamlining the administrative burden and raising awareness of support available

Stakeholders reflected on the need to streamline the administrative burden, raise awareness, and improve ease of access to available business and training support (e.g. through Farming Connect), and to encourage farmers to engage with due processes early, rather than waiting until it is 'too late'. Other suggestions included supporting an informal approach to skills-sharing or co-operative principles. Reducing administrative demands and due consideration of cross-border farms in a UK-wide regulatory approach were also highlighted as needing due consideration.

Action: Protection against the impact by increasing awareness amongst agencies of the impact on mental well-being, and signpost to support

Stakeholders felt that many regulatory agencies should be supportive and consider the impact of their processes on the farmer's well-being, rather than just viewing them as a 'holding number'. For example, inspectors could be a gateway to support, as 'mistakes' can be an indicator of a struggling farm/farmer. Inspectors could identify challenges early, signpost to existing support from other organisations to help, co-ordinate and create a supporting system for farms identified as vulnerable: 'supporting rather than policing'. Mental health awareness training amongst key farming stakeholders was considered by the majority as a positive way forwarde.

'Encourage all enforcement agencies to co-ordinate action, with opportunity for the role of inspectors to become supportive rather than oppressive'.

Action: Protection against the impact by improving rural connectivity and digital literacy

A shift towards digitalisation needs to be complemented by the provision of fast internet connectivity, especially in rural areas, alongside addressing gaps in digital skills and literacy. Regulation and administrative processes and communication channels need to accommodate more traditional approaches (e.g. in print), alongside digital platforms. Stakeholders commented specifically on the importance of information delivered in paper format such as Gwlad^f, for engaging farmers.

[°] The DPJ Foundation has been delivering Mental Health First Aid training to agricultural organisations (See Appendix, Table A1).

^f GWLAD offers news to keep farming and forestry business up to date with news, grants and policies, more information is available at https://gov.wales/subscribe-farming-and-forestry-news-gwlad

4.1.4. Key challenge 4: Prioritising and engaging with their own health

Stakeholders reflected on the challenges facing farmers to achieve a good work-life balance that prioritises their own health, especially within the culture of self-reliance, working long hours in a physical job, managing demands, and where additional labour/support is often not affordable. Farmers rarely feel able to take time off or prioritise their own health above the business needs, and as a result, stress accumulates over time contributing to a deterioration of health.

Opportunities identified for prevention and protection

Action: Prevention by valuing health: Embedding a health narrative through healthy farming families in Wales

Stakeholders highlighted the importance of addressing a health narrative with farmers on their terms, and focusing on healthy farming families was seen as a potential approach given the strong cultural references to small traditional family farms in Wales. Embedding health into the farming culture, extended beyond health and safety training provision to include physical and mental health literacy, would help progress towards building a resilient farming community in the future.

'To embed the health and well-being narrative into farming culture: requires a cultural shift; and people knowing where to go for support when needed'.

Action: Prevention by engaging farmers through outreach

Outreach was considered a useful approach as it can engage farmers in considering their own or their families health, delivered within their specific context, be that rurality, a farming working day or seasonal workload. The livestock markets mobile surgery model operating in some areas in North Wales was considered a good example, where farmers are offered an opportunistic blood pressure check, given brief advice and signposted to their GP if needed⁹. During testing, there are opportunities to discuss the stresses of farming and farmers get given a confidential helpline call card (of Farming Community Network) to help raise awareness about the service. Utilising the physical health check as an opportunity for a broader discussion on mental health and well-being was considered a good way to engage with the farmers on discrete, sensitive topics.

⁹ Early findings from the North Wales Dolgellau Mobile Health Check Surgery: October 2018-February 2019, delivered across livestock markets in Anglesey, Porthmadog and Ruthin (Gaerwen market, Dolgellau market; Meirionydd County Fair, Ruthin Market; Bryncir Market, Anglesey show), completed 198 farmer blood pressure checks, detected 51 cases with high blood pressure, provision of 198 helpline call cards for Farming Community Network and anecdotal reports of an increase in calls for support (Source: BCUHB, Personal correspondence, 28th May 2019).

4.1.5. Key challenge 5: Isolation and loneliness

Geographically isolated farmers have a very solitary job, with complete self-reliance, and often limited opportunities for wider social interaction. Stakeholders reflected that opportunities for farmers to connect with others are largely limited to business interactions. Livestock markets were identified as important meeting places, due to the familiarity of place, informal nature, and established social networks.

'Farmers can literally go days without seeing or speaking to anyone'.

The Royal Welsh Show was highlighted as an important event to connect with others around the farming culture. Locally based support and online support groups were mentioned but the awareness and uptake amongst all farmers was not known, and some suggested these can be ineffective because the user-generated content can reinforce challenges and is often not solution-focused. Farmers may also be hesitant to access well-being services in their local area due to concerns around confidentiality and privacy (e.g. accessing the local Mind organisation).

Opportunities identified for prevention and protection

Action: Prevention by increasing peer-led opportunities for farmers to connect

Stakeholders reflected that increasing opportunities to connect should be rooted in a place, and be based on a peer-led approach (e.g. farmer to farmer) in order to meet the needs of those most vulnerable. Livestock markets were identified as a critical source of support, but recognised that not all farmers attend. Other recommended approaches to engage those most vulnerable members of the farming community included befriending, mentoring schemes or time-banking^h.

'The challenge is engaging with the hard to reach who don't know about the services in the first place'.

Action: Prevention by increasing opportunities for farmers and communities to connect

Many stakeholders reflected on the gradual decline of the rural communities, and the opportunities for socialising disappearing (e.g. local pubs). Examples were given of older farmers having limited options to connect with others and young farmers losing the social support once they reached the maximum age for the Young Farmers Club (YFC) membership. Stakeholders suggested opportunities to build more links between farmers and the local community for example, highlighting the local economy farms support¹, and creating farming ambassador roles linked to local schools. Recognising and encouraging social opportunities for farming wives/partners and principal farmers (e.g. through supporting local farming events), were also seen as important, enabling strengthening of social networks.

'Community support is important, if this is disintegrating it adds pressure on individuals...we must look at the individual AND community to support each other'.

^h Time-banking is an innovative form of volunteering and means of skills exchange, utilising existing assets and resources within the community. Community members can support each other directly, through contributing a particular skill, or exchanging unpaid labour in hourly units for time credits (102). The benefits of such approach can be distilled into broader implications for social and economic well-being, and strengthening social networks and social capital (102).

Family farms in Wales procure 80% of goods and services within a 25mile radius of the holding (76).



4.1.6. Key challenge 6: Farming culture and expectations

Stakeholders described farmers as being largely self-reliant, expected to be able to 'just get on with it' and 'cannot be seen to fail', placing particular pressure on young farmers, where previous generations are seen to have succeeded. This culture both contributes to poor mental health and well-being and acts as a barrier to seeking support, be that to address the underlying causes of stress (e.g. financial stress) or health issues (more so for mental health than physical health).

Opportunities identified for prevention and protection

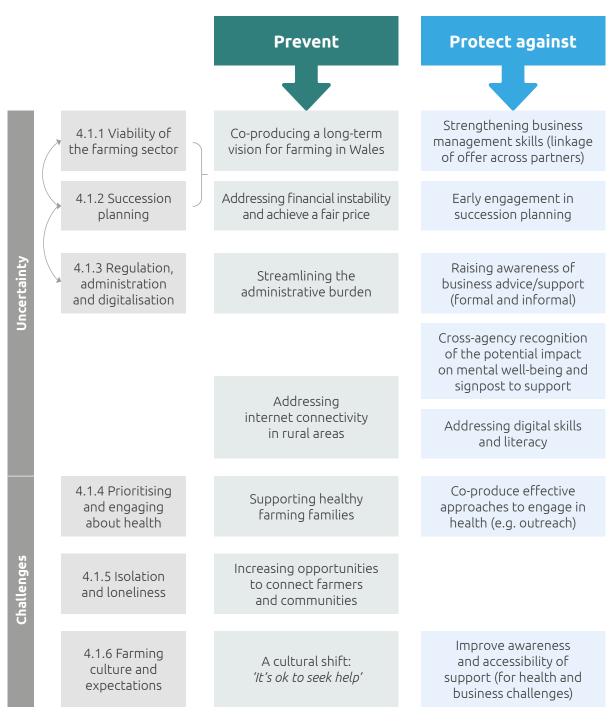
Action: Prevention by supporting a cultural shift to seek advice and value health

Stakeholders suggested that there was a need to change the narrative around seeking and accepting support, both for business and health and mental well-being. There is a need to highlight the importance of keeping healthy and well for the benefit of the farming business and family. This can include promoting positive messages of 'healthy farmer equals healthy farm', 'it is okay to prioritise looking after yourself'; and promoting the value of talking to someone (e.g. peer farmer or an independent person). Stakeholders felt it was imperative that such an initiative be led by farmers themselves, challenge stigma, be open about accessing support to overcome challenges, raise awareness about mental health experiences at key agricultural events, and identify key leaders in the agricultural community to promote positive health. The role of YFC to drive new culture with local campaigns was highlighted as important for early prevention, and notably those starting to drive a narrative that 'Asking for help is okay'. Stakeholder examples included referring to young farmers raising awareness of mental health issues through sponsored walks (35), Gareth Wyn Jones' challenging the stigma attached to mental health (36), campaigns such as the Time to Change Wales (37).

4.1.7. Summary

Reflections from the stakeholder engagement events identified six key uncertainties and challenges facing farmers, their families and farming communities in Wales. The stakeholders' views on approaches to prevent and protect against the impact on mental health and well-being are summarised in Figure 2. The key challenge, in relation to Brexit, was the uncertainty and viability of farming as a business in Wales, but this needs to be placed within the wider challenges that are facing farmers and the cumulative impact on well-being that extends beyond Brexit. Solutions focused on the need for better awareness of the support available, working across organisations to recognise stress and anxiety, and for farmer-led, peer-to-peer solutions, including the need for a cultural shift in farmers accessing and accepting support for business and health concerns.

Figure 2: Preventing uncertainty and challenge, and protecting against the impact on mental well-being.



4.2. Promoting mental health and well-being

Alongside action to prevent the uncertainties facing the farming sector, and protect or lessen the potential distress and anxiety caused, a focus on promoting the mental health and well-being of farmers and their families is essential to building a resilient farming sector in Wales. Within Wales, the Together for Mental Health strategy commits to promoting mental well-being, and protect and improve mental health of all people in Wales (41).

4.2.1. Existing approaches in Wales

The stakeholder engagement identified four types of existing approaches that seek to address the mental health and well-being of the farming sector in Wales. Few of these are available across the breadth of Wales, many are supported by short-term funding, and none have been formally evaluated to understand the uptake and impact on the health and well-being of farmers (See Appendix, Table A1 for overview).

(i) Raising awareness about mental well-being and support targeted to the farming sector

Stakeholders discussed the need to normalise mental health issues, increase understanding of how and why these occur, increase awareness of the support available, and to address the barriers to seeking help. A number of existing campaigns were mentioned including Time to Change Wales (37); Gareth Wyn Jones's mental health stigma challenges (36); Farm Safety Partnership and the Yellow Wellies/Mind your head campaign (38); Mid Powys Mind-Pledge (suicide prevention campaign aimed at men in rural and farming communities, including the 'Take the pledge with a friend' campaign, encouraging men to speak to each other on peer-to-peer basis) (39); and the Young Farmers Club fundraising activities to promote positive mental well-being (35). Mental health support in Wales specific to farmers includes Farming Community Network (FCN) confidential national helpline, The DPJ offering bespoke counselling to support people in rural communities with poor mental health (especially men in the agricultural sector) and in their own home (an all Wales coverage), including online and helpline support, Tir Dewi offering crisis support, helpline and support delivered on the farm (See Appendix, Table A1 for more details).

(ii) Increasing mental health literacy amongst support agencies

There was strong support for improving mental health literacy amongst agricultural agencies, unions, vets and others who have regular contact with the farmers. Existing examples included the DPJ Foundation providing Mental Health First Aid (MHFA), and Mental Health Awareness staff training to frontline agricultural agencies, unions and others. Anecdotally, this has been well received by those trained, in particular the DPJ Foundation translating the language used and illustrated examples to reflect farming.

(iii) Partnership working to integrate mental well-being

An example of an existing initiative in Wales integrating mental well-being within the farming sector is the Rural Stress initiative led by the Powys Association of Voluntary Organisations (PAVO), which brings together representatives from agricultural and mental health sector organisations across Powys, including The DPJ Foundation, to explore how the organisations can work better together to address mental health distress and stigma in the agricultural community in Powys (40).

(iv) Outreach - taking health to farmers

There are a number of initiatives operating across Wales providing health support embedded within livestock markets, offering informal, physical health checks and an opportunity for a broader discussion on well-being (e.g. Dolgellau Outpatient Clinic Blood pressure checks (See footnote 'e' on page 15)). Locally these are considered to be a good way to engage with the farmers about health but have currently not been evaluated.

4.2.2. International examples addressing the mental well-being of farmers

The lack of robust, evidence-based programmes specifically designed to support farmers and their families was a key challenge in the international literature. Nonetheless, three programmes developed specifically to support mental well-being within farmers with a demonstrable impact on outcomes were found (See Appendix, Table A2). Many originate in Australia and New Zealand following Governmental prioritisation of the health and well-being needs of farmers and rural communities (24,42). A number of other initiatives were identified, and whilst their impact on outcomes was not clear, they provide valuable insights into approaches taken to engage with farming communities (summarised in Appendix, Table A2).

(i) Embedding a health narrative into farming: Sustainable Farm Families (SFF) and the Sustainable Dairy Farm Families (SDFF)

The Sustainable Farm Families (SFF) and the Sustainable Dairy Farm Families (SDFF) were developed in Australia in response to concerns over farmers' health (43,44). The programmes have a strong premise that the well-being of the farming industry requires healthy farming families, and as such provide farmers with rationale and permission to practice self-care.

The initiatives were developed in partnership with health services, the university, and agricultural agencies, and the programmes were delivered by health, rural and agricultural professionals to farmers using a train-the-trainer approach (45). Between 2003 and 2018, 151 programmes had been delivered to over 2,500 farmers, and in 2014 SFF commenced in Canada (43).

SFF and SDFF take a holistic approach to promoting health, engaging with farmers to provide regular assessment and review. The programme is delivered over a series of workshops and provides participants with information on personal health, well-being, and safety whilst exploring attitudes to personal health (46). The workshops act as a forum for learning about farming and health, and identifying and addressing areas of concern (47). For example, the SFF developed a psychological health and obesity programme called Farming Fit in response to high obesity levels (48,49), another example is the Alcohol Intervention Training Programme (50). Although the initial pilot results of the topic-specific programmes are positive, there is insufficient evidence to draw a definitive conclusion.

In an evaluation of the SFF and SDFF programmes (2003-2005), a sample of 321 men and women (aged 18-75 years) actively involved in farming were followed up at one-day workshops delivered annually by health care professionals aware of rural health (44,51). In the first year of follow up, unmet health issues relating to mental health, alcohol consumption, body pain, poor work practices/safety were identified (60% men, 71% women were referred to a medical practitioner or allied health specialist) (51). Amongst SFF participants who attended all three assessments (n=99), a statistically significant improvement in knowledge and retention of knowledge was found in men (retaining 67% of questions after one year) and women (retaining 88% of questions after one year), and at year three information presented in year one was still retained (85% for men and 86% for women) (51). A significant change in positive approach to farm safety and looking after health and well-being was also evident, with 54% concerned with farm safety and actions to improve personal health, and 24% concerned with improving well-being by spending more time with family and taking a holiday (51). There have been small but positive changes in some health indicators, and a significant reduction in cholesterol was also found amongst participants (but the representativeness of participants is not clear, and findings are in the absence of a control group) (44).

(ii) Building cross-agency working to promote well-being and resilience: Farm-Link

Building capacity across agricultural agencies to respond effectively to the health needs of farmers was common across the programmes identified (See Appendix, Table A2). **Farm-Link** was established in 2007, in Australia, following significant periods of drought and concern for farmers' mental well-being (52). The programme was developed following a needs assessment of key risk factors that impact on farmers' well-being and resilience (42). Farm-Link included (52):

- Project Officers to map farmers links within localities (for example; local markets, veterinary practices, rural banks) and use these contacts to encourage closer relationships between key rural community organisations and health services.
- Building cross-agency networks, bringing together the NSW Farmers Association and Rural Mental Health Network to co-ordinate new services to improve pathways to mental health support.
- Providing mental health literacy training to raise awareness of mental well-being amongst
 the farming professions, build confidence and facilitate access to health support. Courses
 were held in rural communities with populations below 2000, in the belief that high
 visibility of the events helped to embed conversations about mental health and engage
 the wider community. The skills developed in the courses were seen by professionals and
 community members as an extra resource, at no financial cost, that increased awareness
 of mental well-being.

Farm-Link Project Officers were valued as 'brokers' between the agricultural and health sectors, helping to translate the farming landscape and context to health professionals, and building the confidence of agriculture agency workers to take an active role in supporting farmers' well-being. A service network analysis, by Farm-Link Project officers, demonstrated an increase in links between agricultural support agencies and local mental health and well-being services (52). But the evaluation of Farm-Link has its limitations. Firstly, it is not clear over what period the changes were found and if the results were sustained. Secondly, it was prone to bias as the selection of communities and the surveys were administered by employees of Farm-Link, in the absence of control groups to provide an objective comparison. Lastly, whilst this demonstrates improvements in linkages between organisations, it does not demonstrate the impact on farmers' mental well-being.

It is important to recognise that Farm-Link was responding to a serious farming crisis and was working in an environment of rapid change and development (53). Its value was in being able to move quickly, mapping established rural networks and coordinating stronger and more strategic links to support helping pathways for farmers. Using MHFA training adapted to a rural setting helped Farm-Link to actively engage with key agencies and create a forum for talking about mental well-being. An important success factor was the employment of rural development officers with knowledge and experience of farming or rural industry, as well as a good grounding in health and well-being. This enabled Farm-Link to build credibility and trust with the farming community.

(iii) Increasing mental health literacy and awareness amongst farming professionals (e.g. Mental Health First Aid)

Mental health literacy describes the ability to understand and use information to promote and maintain good mental health. Its three key elements are:

- how mental health conditions can be recognised,
- · how good mental health can be maintained, and
- actions for support and prevention of poor mental health (54)

MHFA was originally developed in Australia to build mental health literacy in the general population (55). It has been used extensively as an intervention in different countries, including Wales, and across a range of populations, including emergency workers such as police and firefighters, and corporate office environments. A number of examples of its application to the farming sector were found.

In the Australian MHFA programmes, the course was delivered by trained providers (56), overseen by the Centre for Rural and Remote Mental Health. This included training to frontline agricultural workers and rural non-health professionals (52,56), and farm advisors from government and non-governmental agencies (55,57,58).

In New Zealand, GoodYarn is a licensed mental health literacy programme which is based on a similar premise to Australia's MHFA training programme, further developed by a Primary Health Organisation for farming regions (54). A 'yarn' in New Zealand rural communities is an informal conversation, thus the name GoodYarn identifies the importance of communication and sharing of experiences about mental health and well-being. GoodYarn workshops are delivered by people who have both a farming or rural industry background and personal or close personal experience of mental health problems. This peer delivery model was developed in response to the consultation in New Zealand that articulated 'Farmers don't want to listen to a "health" person, delivering a health message. They want someone they can relate to and who will understand the different issues that rural people experience' (54).

Common findings across all studies are that there is evidence that MHFA as an intervention to increase mental health literacy is well-received by those trained, and the awareness and understanding of mental health improves amongst those who received the training (pre- and post-comparison). But as yet there is no empirical evidence to suggest MHFA has a beneficial impact on the mental health outcomes amongst the end recipients (i.e. the farmers that the trained individuals come into contact with) or across the population (55,57). Public Health Wales undertook a Health Improvement Review in 2012 that made an assessment of the Welsh Mental Health First Aid programme that has been running since 2011 (59). The review concluded there was some evidence MHFA had the potential to increase confidence and skills in recognising mental health problems and reducing stigma. But there was inconsistent evidence that those trained would intervene when they recognised potential distress, and no evidence that widespread MHFA training has the potential to impact on population mental health outcomes (59). More recent systematic reviews have also concluded that MHFA training led to an improvement in knowledge, understanding and stigma amongst those trained, and some evidence of improvements in support to others, but the longevity of any improvement is unclear (60,61). A Cochrane systematic review of MHFA, which aims to understand the impact of the programme on outcomes amongst the recipients in the community (i.e. those who the trained individuals come in contact with) across a range of settings, is currently underway (62).

There is a need for further study to explore the potential impact amongst farming communities in the longer term, on mental health awareness, help-seeking behaviours, stigma and outcomes. Careful consideration is also needed to ensure a supportive and sustainable infrastructure is in place so those identified who need support can access it.

4.2.3. Other initiatives implemented in rural farming communities

The literature review also identified many other initiatives to specifically address the health needs of farming populations, but for many the description of the intervention was unclear and none have been evaluated. Further details are provided in the full literature review available at www.publichealthwales.org/supporting-farmers-appendix, but as an overview these included:

- farming specific health care clinics and outreach programmes across the UK (63–67)
- national campaigns (e.g. The Farm Safety Foundation (2014) Yellow Wellies Who Would Fill Your Boots? and Mind Your Head, to tackle stigma and raise awareness of farm safety and mental health and suicide (38))
- dedicated occupational health services have a role in farmers' well-being (in Finland (12,14), and Sweden (68))
- health pit-stop programmes at local farming events (for example the Dairy Farmer Wellness and Well-being Programme in New Zealand (69), or Men's Health Pit Stop in Australia (70))
- mental health support lines (71), or peer support groups (66)
- online digital tools (for example The Ripple Effect (2015, Australia) is an interactive online digital tool that aims to reduce stigma among males with a personal experience of suicide in the farming community). An uncontrolled evaluation with self-selected participants reported 62% of participants were involved in farming, 38% had never farmed, more females contacted the site (66%), however a higher proportion of males were more likely to have had a direct personal experience of suicide (attempted or had thoughts of suicide) than females (72)
- national programmes tackling the culture of health and farming (for example, Farmstrong (2015, New Zealand) is a nationwide rural well-being programme for farmers to help them 'Farm Well Live Well', under the objective that farmers are the most important asset on the farm and increasing well-being will increase resilience (66,73)). Over two years, over 120,000 people visited the website, 16% visited more than once, over 8,500 visitors spent more than five minutes on the website; also nearly 300,000 social media views. The survey found that 39% of participants reported improved 'ability to cope with the ups and downs of farming' as a result of Farmstrong, and three-quarters attributed at least one dashboard measure of improvement to Farmstrong (73)



4.2.4. Summary

Promoting the mental health and well-being of farmers and their families is essential to building a resilient farming sector in Wales. The examples from Wales and the international literature highlight the concerted efforts by many countries to better support the mental well-being of farmers. A key challenge is the lack of robust, evidence-based studies amongst farmers that demonstrate an impact on outcomes. Three programmes were identified which had a strong rationale, a sound theoretical approach, and were developed and implemented in partnership with farmers and the agricultural sector. Whilst most demonstrated high levels of engagement amongst rural communities (largely through the links with agricultural partners and peer support elements), and a change in knowledge and awareness of mental health, none demonstrated a significant improvement in farmers' mental health and well-being as an outcome. Nonetheless, common factors which likely support good engagement across the agricultural sector were evident in many initiatives and should be used to inform future action. These include using appropriate language, utilising peer/link workers or building on existing networks to engage with farmers, maintaining a focus on business, and ensuring co-production of programmes and tools with the sector (See Table 1).

Table 1: Key challenges engaging farmers in health and lessons from the approaches identified within the literature review

Challenges to engaging farmers in mental health	Approaches identified in the review
Reluctance to engage in health – stoicism, tendency to self-manage, work ethic, independence, stigma	• Linking the well-being of the farming business to the farmers' resilience helps engage them in looking after their general health and well-being (e.g. Sustainable Farming Families).
	 Using local contacts and frontline agricultural agencies can be a useful resource to assist farmers' in accessing mental health support. Building mental health literacy can give knowledge and confidence to deal with farmers' stress.
	 Use positive language - e.g. Farmstrong (focusing on assets and strengths), Good Yarn (yarn is a colloquial language for an informal discussion).
	 Include farmers in the development to tailor content to their needs.
A traditional focus on 'practical' problem solving as opposed to 'seeking help'	 Using asset-based approaches and language helps to destigmatise and encourage positive solution-focused approaches (e.g. Sustainable Farming Families, Farmstrong).
	• Provide support which is goal and action orientated.
Reluctance to engage with health professionals	 Delivery of support through non-health professionals (other professions linked to agriculture with knowledge of farming life). For example during the Foot and Mouth crisis (2001), studies suggested that farmers found it easier to talk to veterinarians and other agencies that were offering practical information.
	 Peer-led interventions can break down barriers and promote social capacity (e.g. Farmstrong).
	 Deliver through existing networks to increase participation.
Interventions or support provided is not sustained	 Draw on existing, or build, strong local links between agricultural agencies, community organisations and health services leading to sustainable rural community capacity (e.g. Farm-Link).

5. Summary and recommendations for action

A framework to support the mental well-being of farmers at times of uncertainty needs a preventative approach which includes a focus on:

- preventing uncertainty and the challenges from adversity,
- **protecting** against the potential impact of those challenges on mental health and well-being, and
- **promoting** mental health and well-being amongst farmers and farming communities to support resilience (Figure 1).

Drawing on the stakeholder engagement and evidence review this section outlines key actions under those themes.

A. Preventing uncertainty and challenge from adversity, and protecting against the impact on mental health and well-being (Section 4.1)

The stakeholder engagement and wider evidence identified that financial instability, uncertainty, challenges in succession planning, and a lack of sense of control are considerable sources of stress and anxiety to farmers, and their families. Financial concerns, including debt, are one of the biggest challenges to mental well-being. Within the context of Brexit, the Agriculture Bill legislates for new models of financial support for agriculture (74) including devolved powers to Wales. A recent consultation by the Welsh Government Brexit and our land, received over 12,000 responses, and outlines the ambition for a sustainable agricultural sector in Wales, alongside a commitment to proactively engage with farmers to co-design the underlying details (75). The Well-being of Future Generations (Wales) Act provides an opportunity to demonstrate how the farming sector makes a positive contribution to the health and well-being of the population in Wales and in particular rural communities. For example, for every £1 invested in British farming, farmers put more than £7 back into the local rural economy (76). The good health of farmers themselves is essential to the longer-term resilience of the farming sector, however it is often not considered in this context (29,76,77).

Recommendation: Co-produce the national vision for the future of the farming sector, highlighting its value as a natural resource supporting the Well-being of Future Generations (Wales) Act (1).

The regulatory burden on farmers was a key challenge identified in the stakeholder engagement, and there were concerns about how this might change following Brexit. A review of regulations in farming, *Working Smarter* was completed in 2011 (78), and in response the Welsh Government agreed to take forward the recommendations (2,79). It may be timely to revisit the progress made, within the context of potential future changes to the regulatory system and the digitalisation of farming systems.

Recommendation: Assess progress against the *Working Smarter* (2) recommendations to streamline the administrative and regulatory processes in farming.

Digitalisation within the context of limited levels of internet connectivity in rural areas and digital literacy amongst farmers was a challenge. The importance of ensuring all farmers have the opportunity to capitalise on being connected digitally has been highlighted elsewhere (80). Welsh Government's current digital inclusion strategy framework 'Delivering Digital Inclusion: A Strategic Framework for Wales' includes a focus on rural communities and digital inclusion, alongside planned support specifically for farmers (81). More recently, Digital Communities Wales and Young Farmers members are exploring the potential for training in digital inclusion to provide a peer-to-peer model of support locally (82). Understanding the levels of provision, uptake of (and barriers to) support amongst farmers across Wales is needed to target future support.

Recommendation: Ensure effective approaches are implemented to support the digital inclusion of farmers and rural communities.

A range of business support within Wales was identified for the farming sector (See Appendix, Table A1), but there was confusion amongst the organisations themselves on what each can offer, the geographical coverage and eligibility, illustrating the need for some mechanism to better co-ordinate support. There was also little understanding on the effectiveness of the current offer. Better linkage across governmental and non-governmental agencies can help to co-ordinate and integrate support, and share effective mechanisms to engage with the most vulnerable. As found in Farm-Link, a programme responding to a serious farming crisis working in an environment of rapid change (53), a key value of the Project Support Officers was being able to move quickly, map established rural networks and co-ordinate stronger and more strategic links, building credibility and trust with the farming community. Applying learning from that approach to a Welsh context could help provide more integrated support to farmers, and provide an established national response network linked locally, to ensure co-production of solutions.

Recommendation: Review the uptake, coverage and effectiveness of business skills and workplace health programmes, and co-produce models (e.g. peer-to-peer) to engage the most vulnerable.

Recommendation: Facilitate partnership working and integration of governmental and non-governmental support agencies, using co-production methods of engagement with the farming community as standard.

B. Promote mental health and well-being amongst farmers and farming communities (Section 4.2)

Within the international literature, the lack of robust, evidence-based programmes specifically designed to support farmers and their families was a key challenge. Three programmes which had a strong rationale, sound theoretical approach, and were developed and implemented in partnership with farmers and organisations linked to agriculture were identified, but the evidence of impact on **outcomes** was weak.

When the evidence in an area is not strong enough or widely available to support the development of interventions, from a public health perspective, it is possible to adapt programmes from different countries or settings, pilot locally, and incorporate evaluation to inform learning and programme development. However, the transferability of programmes is often uncertain (83), as an effective model in one area or population, may not be effective in a different context. There are a number of evidence-based approaches to supporting mental well-being which have not been implemented within farming communities specifically (See Appendix, Table A3). There is the potential to consider if these programmes could be transferred to the agricultural sector, adapting and drawing from the lessons learnt in the interventions in farming communities found in this review (See Table 1) to support successful implementation.

The stigma and barriers associated with accessing support for health, in particular mental health, is a key challenge and heightened amongst a male dominated farming sector. The evidence suggests that services which are co-produced with farmers and tailored to the challenges farmers face, and solutions available to them, do have good levels of engagement. Co-producing national mental well-being and anti-stigma campaigns, making them relevant to the farming sector, has the potential to address barriers to support. For example, the Time to Change programme in Wales '#TalkingisaLifeline' includes a focus on men (84), but it is not clear to what extent farmers engage. Examples specific to farming include 'Are Ewe okay?' in Scotland (85), encouraging young farmers to break down the stigma and speak out about mental health.

The stigma also acts as a barrier to seeking early help for business concerns, which can (if not addressed) have a detrimental impact on health. The stakeholders reflected on the need for a cultural shift in the farming sector so that open conversations about seeking help are seen as a sign of strength, not weakness. Learnings can be also taken from Farmstrong (2015, New Zealand), a nationwide rural well-being programme, which has achieved good engagement amongst farmers by integrating health and business under the overarching theme of 'Farm Well Live Well' (66,73).

Recommendation: Support a farming sector led change in culture to address the stigma associated with seeking business or health advice, and support.

There are national mental health support services available in Wales e.g. a universal C.A.L.L (86) emotional support and information on mental health helpline for Wales and directory (funded by the Welsh Government), Samaritans (87), MIND Cymru (88) - but uptake amongst farmers is unknown, and in the stakeholder events many reflected that these services are not relatable to the farming sector, and can be a significant barrier to engagement, also evidenced in the international literature. There is a need for targeted support, in particular for those who are more isolated and do not engage in existing social events or networks (e.g. rural shows or markets). In Wales, alternative approaches suggested included peer support models, which have been shown to be effective in supporting public mental health (89), but not as yet implemented amongst farmers. Operating in some areas of the UK, the National Federation of Young Farmers' Club (NFYFC) Rural + Campaign (90) is a model of peer support, delivered in partnership with the FCN, addressing mental health and isolation, but as yet this has not been evaluated.

Recommendation: Co-produce, pilot and evaluate a peer-to-peer model to address the mental well-being of the most vulnerable.

Increase the mental health literacy of organisations and regulators who work with farmers to recognise the impact of current system pressures, identify those struggling and offer onward support. Such agencies often encounter farmers in distress but do not necessarily know how to help, for example, a national study of financial advisors highlighted a need to build skills and confidence of recognising mental health issues to support farmers in distress (56). MHFA is an example of an intervention for mental health literacy that focuses on increasing awareness of how mental health conditions can be recognised, actions to support and prevent poor mental health and how good mental health can be maintained (55). In Wales, The DPJ Foundation's approach is similar to the *GoodYarn* (New Zealand), supporting mental health literacy through MHFA, delivered by people who have both a farming or rural industry background, and personal or close personal experience of mental health problems. The provision of MHFA training adapted to a rural setting by Farm-Link (New Zealand) helped to build a common language across key agencies and create a forum for talking about mental health and well-being. An important success factor was the employment of rural development officers with knowledge and experience of farming or rural industry as well as a good grounding in health and well-being. However, despite this level of activity, there remains a lack of evidence to demonstrate the impact of MHFA on the recipients (in this case the farming community) directly. Reviews of the literature have concluded that there is some evidence MHFA training has led to an improvement in knowledge, understanding and stigma amongst those trained (59), and some evidence of improvements in support to others, but the longevity of any improvement is unclear (60,61). A Cochrane systematic review of MHFA, which aims to understand the impact of the programme on outcomes amongst the recipients in the community (i.e. those who the trained individuals come in contact with) across a range of settings is currently underway (62). Therefore, implementation needs careful consideration of the benefits, at the cost of other approaches, and if implemented this must be with due consideration with the supporting infrastructure to support those in need, and further study to understand the impact amongst farming communities in the longer term, on mental health awareness, help-seeking behaviours, stigma and outcomes.

Recommendation: Increase the mental health awareness amongst farmers and agencies who work with farmers, evaluating the outcomes on the farmers themselves.

The health of farmers themselves needs due consideration within the context of the longer term resilience of farming in Wales, however it is often absent (29,76,77). Evidence from other studies suggests that framing health in terms of a business asset helps to prioritise health within farming communities – this approach could be taken to address the reluctance to consider health. Farmers are likely to employ few, if any, workers beyond the farming family (91), so maintaining their own health is essential to the success of their business (51). However, this is often not recognised as a priority. Other approaches include learning from international examples of a more comprehensive programme of occupational health for farmers for examples in Sweden (68), or Finland where the farmers' occupational health service (partly funded by farmers and partly by social insurance) includes a mental well-being and health assessment (12,14).

The evidence from Wales and the international literature suggests the need to better integrate health, in particular mental health and well-being, into the farming sector and that any approach will need to be co-produced with the farmers and farming communities. Any approach will require robust evaluation to determine the impact.

Recommendation: Co-produce an integrated, evidence-based approach to mental health promotion and resilience building, including universal and targeted approaches, and determine the impact through robust evaluation.

Conclusion

This report is a collaboration between Public Health Wales and the Mental Health Foundation, informed by the international evidence base, and views from across the farming sector in Wales, including farmers themselves. It is an attempt to address a key area of public health concern, where there is both a need and a demand for action, but a relative lack of clear evidence.

The findings demonstrate that whilst Brexit brings considerable uncertainty and challenge to the farming sector, many underlying causes of anxiety amongst farmers are longstanding. Views from the stakeholders and the international evidence support the need for a preventative approach which includes action to prevent the uncertainty and challenge from adversity, protect against the potential impact on mental health and well-being, and promote mental health and well-being amongst farming communities in the longer term to support a resilient farming sector for the future.

When considering how to best promote mental health and well-being amongst farmers, we found that only a small number of programmes had been evaluated to some extent, but these were largely small pilot studies and did not adequately examine the primary outcome - mental health and well-being amongst farmers. Whilst we recognise that given the time available we may not have identified all studies in this area, there is insufficient evidence to draw a conclusion on a single effective programme to support mental health and well-being amongst farmers. However, there are transferable lessons to inform the implementation of a range of approaches targeted to addressing mental health and well-being amongst farming communities in Wales. Co-production and evaluation should be at the heart of any implementation, and the opportunity exists for Wales to be an innovator in this area.



6. Appendices

Table A1: Overview of key organisations and support available for the farming sector in Wales (Information available as of June 2019).

Services	Type of support	Locality coverage	Funding source/ longevity	Link to website
Tir Dewi (Charity) Established 2015	Crisis support freephone helpline; listening service and signposting service for farmers and farming family Last 12 months supported: 70 Farmers 250 farming family members Since opened (2015-2019) supported: 190 Farmers 800 farming family members	West Wales: Carmarthenshire, Ceredigion and Pembrokeshire Currently looking into opportunities to expand provision to wider geographical areas	The Church in Wales Princess Countryside Fund Currently have funding available until: 2020	www.tirdewi.co.uk
DPJ Foundation (Charity) Established 2017	 Counselling support for people with poor mental health in rural communities (especially for men in the agricultural sector) Mental Health First Aid training to frontline agricultural staff Raising awareness of mental health issues Last 12 months supported: 89 Farmers MHFA training provided to: 150 staff MHFA provided to: Farming Connect Dyfed Powys Rural Crime Team FUW; NFU YFC Agriculture Advisor 	An all Wales coverage 18 volunteers staff the telephone/text helpline	Self-funded (over £100,000) Big Lottery (£20,000) Currently funding available for the next 3 years	www. thedpjfoundation. com

Services	Type of support	Locality coverage	Funding source/ longevity	Link to website
Farming Community Network (FCN) (Charity) For 25 years	A confidential, national helpline and e-helpline which is open every day of the year from 7am-11pm For farmers and farming family Volunteers provide free, confidential, pastoral and practical support Supported over last 12 months: Over 6,000 people a year in England and Wales. Also includes support with paperwork, building relationships with bank managers, acting as family mediators and even supporting farmers through legal issues.	All Welsh counties	Donations from the agricultural community and some agricultural supply companies Welsh Government for specific projects Not relying on public funding- a well-established charity	www.fcn.org.uk
The Farming Help	Confidential helpline for all in the farming industry – which is operated as a 'one stop shop', available between 9am and 11pm every day of the year The Farming Help partnership is a collaboration between the Addington Fund, the Farming Community Network, R.A.B.I, and RSABI	National (UK)	Prince's Countryside Fund	www.farminghelp. co.uk
Grace (Rural Wales) Partnership (Y Grŵp) (Charity)	Christians reaching out to rural community, outreach at local farms, and livestock centers	Based in Carmarthen Their Chaplaincy visits Llandeilo, Llandovery and Sennybridge livestock marts with their mobile base		www.gracewales. wordpress.com
MIND Cymru National Charity	Provides local support offering a range of mental health services Online support for those living with a mental health problem/ or helping to support someone who is –getting the right information about a condition, treatment options or practical issues Provides Infoline for information on types of mental health problems, where to get health, medication, alternative treatments and advocacy	National, 20 local Minds in Wales	Grants, Profit from Mind Charity Shop sales, Public Donations, Challenge events Legacies	www.mind.org.uk/about-us/mind-cymru Exact locations of local Minds in Wales can be found at: www.mind.org.uk/information-support/local-minds

Services	Type of support	Locality coverage	Funding source/ longevity	Link to website
Samaritans National Charity	Dedicated to reducing feelings of isolation and disconnection that can lead to suicide Operates a helpline that can be contacted 24-hours a day for free on 116 123	National 600 Samaritans volunteers across Wales	Corporate sponsorship; Direct Mail- donations; Events and Challenges; Legacies; Raffles and Lotteries	www.samaritans.org/ wales/samaritans- cymru
R.A.B.I. Welfare charity	Financial support to those in hardship to all ages and a long term financial support to those over 65 years old working in farming for at least 10 years	Operates in England, Wales	Fundraising events; Donations for individuals/ businesses; Investment income	www.rabi.org.uk
Prince's Countryside Fund Charity	Offers grants for projects aimed at sustaining rural communities/rural business up to £50, 000 Support in emergency crisisemergency fund (e.g. disease outbreak; extreme weather) Offers business skills training to family dairy and livestock farms Topics include budgeting, understanding accounts, business planning, and business 1:1 support	Operates in England and Wales (national)		www. princescountryside fund.org.uk
Farming Connect	Advice for business support, Training (free to anyone from the farming business to attend) Mentorship schemes Succession planning support (venture progression) Also offers funding towards short accredited training courses, if the business is eligible for Farming Connect (the following individuals are eligible: Business partners, immediate family members (spouses, sons & daughters) and employees on PAYE are eligible for subsidised support (training) to a maximum of three courses per annum, (five courses per annum for individuals under 40)	Local officers across Wales	Welsh Government	www.businesswales. gov.wales/ farmingconnect/

Services	Type of support	Locality coverage	Funding source/ longevity	Link to website
Farm Liaison Service	Provides advice about grants and policies including: Basic Payment Scheme (BPS) Rural Payments Wales (RPW) Cross Compliance Animal Health Record keeping Glastir Rural Development Programme Scheme rules	Local representatives across Wales	Welsh Government	www.gov.wales/farm- liaison-service
Farm Safety Foundation (Charity) (NFU Mutual led initiative)	To provide leadership to improve the safety of farms and allied industries To reduce the numbers of deaths and major injuries to farmers, workers and anyone else coming into contact with farming activities Consists of organisations representing a broad spectrum of agricultural interests, including the large farming membership organisations; auctioneers; training providers; farming press; and machinery dealers	National (UK)	NFU Mutual Funded 2014-2018 NFU mutual 2019- 2021 Additional income is raised through fundraising events, donations from individuals, or grants from charitable trusts Funding available for another 3 years	www.yellowwellies.
IAgSA The Institute of Agricultural Secretaries and Administration Limited (Professional organisation)	Provides professional support to farm administrators and bookkeepers working in the UK rural economy Supports career development in rural business administration Promotes a high standard of professional conduct with farm and rural business administration	National, has a Welsh branch	Membership based Prince's Countryside fund for some projects;	www.iagsa.co.uk/ www.iagsa.co.uk/ branches/north- wales
Venture programme (Part of Farming Connect)	Venture is designed to match farmers and landowners who are looking to step back from the industry with new entrants looking for a way into farming It guides people on both sides through the key steps required to find a potential business partner An integrated package of training, mentoring, specialist advice and business support	Local officers across Wales	Welsh Government- EU	www.businesswales. gov.wales/ farmingconnect/ venture

Services	Type of support	Locality coverage	Funding source/ longevity	Link to website
Young People into Agriculture scheme (Scheme)	Provides funding to successful young farmers (aged under 40 years) to establish as a farm holding	Wales national scheme	Welsh Government	www.gov.wales/ young-people- agriculture-2018- guidance-applicants
Dolgellau (BCUHB mobile outreach drop- in clinic)	To encourage farmers to discuss mental health issues and increase referrals uptake of FCN helpline but via the physical health promotion route NHS ran drop-in clinic for Blood Pressure (BP) checks at livestock markets across North Wales Over 6 months: BP checks taken for: 198 farmers Identified high BP: 43 At risk BP 8 Number of FCN helpline cards given out to farmers at drop in clinics: 198 farmers	North Wales markets: Dolgellau market; Meirionydd County Fair Ruthin Market; Bryncir Market; Gaerwen market; Anglesey show	Betsi Cadwaladr University Health Board (BCUHB) Proportion of the programme is delivered with time in kind (staff), on a voluntarily basis and with help from the Farming Community Network.	www.wales.nhs. uk/sitesplus/861/ news/46481/local
Wales Federation of Young Farmers' Clubs (YFC)	Led by young people, for young people, the Young Farmers' Clubs provide their members aged 10 to 26 with a unique opportunity to develop skills, work with their local communities, travel abroad, take part in a varied competitions programme and enjoy a dynamic social life.	Office across Wales	Membership Based	www.yfc-wales.org. uk

Services	Type of support	Locality coverage	Funding source/ longevity	Link to website
National Farmers Union Wales (NFU Cymru)	NFU Cymru is the voice of Welsh farming Promote and protect the interests of Welsh farmers by working with and influencing government, the supply chain and consumers in order to secure a stable and sustainable future for Welsh agriculture Protect interests of Welsh farmers and put in place the conditions that enable productive, profitable and progressive farming businesses to thrive and grow Memb 40 locations throughout Wales		Membership Based	www.nfu-cymru.org. uk
National Sheep Association (NSA)	Represents the views and interests of sheep producers throughout the UK. It is funded by its membership of sheep farmers and its activities involve it in every aspect of the sheep industry.	Offices across England and Wales	Membership Based	www.nationalsheep. org.uk
Farmers Union of Wales (FUW)	Agricultural union that exclusively represents the farmers of Wales, since 1978. Offers specialist advice, provides discounts and special offers, advises on the latest policy developments, and provides a network of local offices, lobby government and decision makers, and gives the farmers of Wales a voice.	Office across Wales	Membership Based	www.fuw.org.uk
The Women's Institute (WI)	Offers women educational opportunities and the chance to build new skills, to take part in a wide variety of activities and to campaign on issues that matter to them and their communities	England and Wales, Scotland Nation-wide	Membership Based	www.thewi.org.uk/ wi-in-wales
Yellow Wellies/Who would wear your wellies? Campaign	In association with Farm Safety Foundation A social media campaign raising awareness about mental health issues and encouraging help- seeking behaviours	England and Wales	NFU Mutual	www.yellowwellies. org www.yellowwellies. org/farm-safety- foundation

Services	Type of support	Locality coverage	Funding source/ longevity	Link to website
Mind Your Head Yellow Wellies Campaign	Produced a pocket guide to understanding mental health and stress management in agriculture The booklet outlines what mental health means, to the ways you can support others through challenging times, this pocket-sized publication offers practical content for those working in agriculture and allied industries	England and Wales	NFU Mutual	www.yellowwellies. org/the-little-book-of- minding-your-head- download-your-copy- here
Time to Change Wales: Men's health & rural health Campaign	Men's health and Rural health awareness-raising campaign: Challenging mental health stigma amongst Men	National	Membership Based	www. timetochangewales. org.uk/en/mental- health-stigma/what- stigma
Pledge Campaign Mid Powys Mind	Pledge is a suicide prevention campaign ran by Mid Powys Mind initiative, aimed at men in rural communities/farming communities Set up in response to 2017, high suicide rate in Wales in Powys area, with 77% of these were men within rural communities Also "Take the Pledge with a friend", is part of this campaign, encouraging men to speak to each other	Mid Powys	Donations	www. midpowysmind. org.uk/suicide- prevention-pledge
Rural + Campaign (NFYFC- National Federation of Young Farmers Clubs)	Provide information and tools to encourage YFC to become a strong support network for rural young people who may experience rural isolation and mental health issues	National	Tama (Farm Grown Solutions) FCN	www.nfyfc.org.uk/ Ruralplus/ruralplus
Cows on Tour Campaign	Educational campaign: Delivered by Welsh farmers to educate children in schools on where food comes from	Wales-wide	Aberystwyth University; IBERS (Institute of Biological, Environmental and Rural Sciences) Been running for 5 years	www.rabi.org.uk/ farmers-take-cows- on-tour
Young farmers fundraising (Campaign)	3 young farmers raising awareness about mental health issues with sponsored hikes	Wales	Public fund-raising activities	www.farminguk. com/news/ young-farmers- raise-11-500-for- mental-health- charity_53253.html

Services	Type of support	Locality coverage	Funding source/ longevity	Link to website
Addington Fund Charity	Provide homes for farming families living in England and Wales who have to leave the industry, through no fault of their own, and by doing so will lose their home It is one of the Farming Help charities	National (England and Wales)	Grants from charitable trusts and foundations; Donations	www.addingtonfund. org.uk
Black Mountain Land Use Partnership	The partnership brings together farmers and graziers who live, work, and manage livestock on the Black Mountains, working alongside land owners, Brecon Beacons National Park Authority, Natural Resources Wales, and Welsh Water, to discuss and collaborate on the current and future management, sustainability and conservation of the Black Mountains The partnership aims to improve the quality of farming and environmental habitats, the protection of natural capital such as water and soil, wildlife and biodiversity, and the wellbeing and economic health of those who live and work in this iconic area	Spans Wales and England across the counties of Breconshire, Monmouthshire, and Herefordshire	European Agricultural Fund for Rural Development (EAFRD) funded through the Welsh Government Rural Communities – Rural Development Programme 2014- 2020	www. blackmountains. wales

Table A2: Overview of key programmes implemented within farming and rural communities

Programme name	Country (year implemented)	Type of Intervention	Programme aims and objectives	Brief description	Population targeted
Sustainable Farm Families Project (SFF) and Sustainable Dairy Farm Families (SDFF) programs (43,44,46–51)	Australia, Victoria, southern New South Wales, and South Australia (2003-ongoing)	Health promotion programme	The SFF project is a health information and physical assessment face to face programme delivered at structured workshops by health professionals with expertise in women's/men's/rural health to farmers. The aim is to improve the poor health status of farm families by addressing farmer health, well-being and safety issues. Additional programmes developed include: • Alcohol Intervention Training Program (AITP) • Farming Fit study (tackling psychological health and obesity)	Individuals followed up over 3 years. Year 1: two-day workshop covering topics linked to relevant health issues in farming, resource manual, and brief physical assessment. Years 2 & 3: one day workshop. Personal goal setting, peer education, and industry collaboration. • AITP training developed as a brief intervention by SFF health professionals to recognise alcohol misuse and with expertise in rural health. Designed to be delivered in four sessions over two days, included training support kit. • Farming Fit: An individualised exercise coaching program for the intervention group designed by an exercise physiologist and undertaken over 6-month period. Regular monitoring of exercise activity and goals by phone, email and/or mobile text message.	Men and women aged 18 to 75 years, with five or more years active involvement in farming (Broadacre farmers producing mainly beef, wool, and grains; or dairy).
Farm-Link (52)	Australia, New South Wales (2007-2011; programme ongoing as Good SPACE)	Two elements: (1) Mental Health First Aid (MHFA) (2) develop cross-agency partnerships	(1) Improving mental health literacy, suicide prevention, improve health and well-being, improve access to and responsiveness of mental health services to the needs of people who live and work on farms (2) Rural Support Serviced Networks developed to facilitate an effective response to mental health challenges and needs.	(1) 12-hour MHFA seminar delivered by trained presenters; (2) Farm-Link project workers established, maintained, and expanded Farmers' mental health networks, also known as rural support service networks, which consisted of workers from the health and welfare sector and agricultural support and service sectors meetings (quarterly) to focus on pathways to care for farmers at a local level.	A range of frontline workers in agriculture, finance, and environmental and livestock management

Table A2: Overview of key programmes implemented within farming and rural communities (continued)

Programme name	Country (year implemented)	Type of Intervention	Programme aims and objectives	Brief description	Population targeted			
Mental Health First Aid (MHFA)	Multiple (see below)	MHFA training	Mental health literacy: increase awareness of signs and symptoms of common mental illnesses, confidence in	Variable (see below)	Variable (see below)			
	Australia, New South Wales. Farmers Association Mental Health Network (2005- 2006) (56)					starting a conversation, and knowledge of help services	12-hour seminar delivered by trained presenters. Training also included introductions to local area mental health representatives.	Workers in the Agricultural Industry, Farmers and their families.
	Australia, Southern Queensland (2007) (55,57,58)			12-hour seminar delivered by trained presenters. Training also included an overview of the major mental health challenges in Australia, and application of the MHFA approaches to depression, anxiety disorders, psychosis and substance use disorders.	Farm Advisors from two government agencies, and two non- government organisations.			
	New Zealand, National programme (2015-2016) Good Yarn (54)				Interactive peer-led (by those with farming industry background) workshop (2.5 hrs) based on MHFA.	Farmers and families, Frontline Agricultural Workers and rural professionals.		
					Recruitment largely through (1) rural organisation/ networks (2) industry bodies, (3) social media.			

Table A3: Examples of public health interventions tested in settings outside farming

Туре	Intervention		Examples
Universal	Anti-stigma campaign	Mass-media interventions, Awareness Raising, Time to Change, See Me	Examples include mass campaigns which have reduced prejudice (which can support help-seeking) (92), or improved lifestyle change outcomes with education of practitioners and volunteers (93)
	Psychoeducation	Educational interventions targeting treatment compliance or better diagnosis	Increasing awareness of symptoms and conditions is recommended by NICE for a range of problems like Post Traumatic Stress Disorder (PTSD) (94)
Targeted	Peer support and self-management	Peer support interventions (peer-led groups, or facilitated groups, or peer mentoring) with self-help and goal setting aspects	NICE recommends peer support and self-management interventions for: subthreshold depressive symptoms, mild to moderate depression, GAD, mild to moderate panic disorder, mild to moderate OCD; PTSD, psychosis (95,96)
Indicated	Co-production (collaborative care)	Co-design of services	Co-production approaches have been shown to improve prevention and care (97), including in depression and anxiety (98)
	Telephone lines	24/7 suicide prevention line, remote peer support	Telephone or text helplines are recommended by NICE for suicide prevention (99). Some evidence to suggest peer support telephone calls can improve health and health-related behaviour (100)



7. References

- National Assembly for Wales. Well-being of Future Generations (Wales) Act. 2015. Available from: http://www.senedd.assembly.wales/ documents/s37945/Well-being of Future Generations Wales Bill, as passed.pdf [Accessed 9th July 2019].
- Davies A. Written Statement 'Working Smarter' (Better Regulation) update: Cabinet Statement. Welsh Government; 2012. Available from https://gov.wales/written-statement-workingsmarter-better-regulation-update [Accessed 9th July 2019].
- Welsh Government. Prosperity for All: the national strategy. Welsh Government; 2017.
- Welsh Government. Summary of EU Exit Scenario Planning Workshops: Paper from the Energy, Planning and Rural Affairs' Evidence and Scenarios Roundtable Sub-Working Group. 2018.
- Welsh Government. EU Transition and Economic 5. Prospects for Large and Medium Sized Firms in Wales. 2017.
- Green L, Edmonds N, Morgan L, Andrew R, Ward M, Azam S, Bellis MA. The Public Health Implications of Brexit in Wales: A Health Impact Assessment Approach. Main Findings. Public Health Wales NHS Trust; 2019.
- NFU Cymru. NFU Cymru and CBI Wales unite over Brexit stance. 2018. Available from https:// www.nfu-cymru.org.uk/news/latest-news/nfucymru-and-cbi-wales-unite-over-brexit-stance/ [Accessed 9th July 2019].
- Davies AR, Homolova L, Grey CNB, Bellis MA. Mass 8. Unemployment Events (MUEs) – Prevention and Response from a Public Health Perspective. Public Health Wales NHS Trust; 2017.
- Ziglio E, Azzopardi-Muscat N, Briguglio L. Resilience and 21st century public health. Eur J Public Health. 2017;27(5):789-90.
- 10. Foresight Mental Capital and Wellbeing Project. Mental capital and wellbeing: Making the most of ourselves in the 21st century: Final Project Report. The Government Office for Science; 2008. Available from: https://assets.publishing.service. gov.uk/government/uploads/system/uploads/ attachment_data/file/292450/mental-capitalwellbeing-report.pdf [Accessed 9th July 2019].
- 11. Southwick SM, Bonanno GA, Masten AS, Panter-Brick C, Yehuda R. Resilience definitions, theory, and challenges: Interdisciplinary perspectives. Eur J Psychotraumatol. 2014;5:1-14.
- 12. Lunner Kolstrup C, Kallioniemi M, Lundqvist P, Kymäläinen HR, Stallones L, Brumby S. International perspectives on psychosocial working conditions, mental health, and stress of dairy farm operators. J Agromedicine. 2013; 18(3):244-55.

- 13. Fraser CE, Smith KB, Judd F, Humphries JS, Fragar LJ, Henderson A. Farming and mental health problems and mental illness. *Int J Soc* Psychiatry. 2005; 51(4):340-9.
- 14. Kallioniemi MK, Simola A, Kinnunen B, Kymäläinen HR. Stress in farm entrepreneurs. In: Langan-Fox J, Cooper CL, editors. *Handbook* of stress in the occupations. Cheltenham: Edward Elgar Publishing; 2011.
- 15. Maciuba SA, Westneat SC, Reed DB. Active coping, personal satisfaction, and attachment to land in older African-American Farmers. *Issues* Ment Health Nurs. 2013; 34(5):335-43.
- 16. Kearney GD, Rafferty AP, Hendricks LR, Allen DL, Tutor-Marcom R. A cross-sectional study of stressors among farmers in Eastern North Carolina. N C Med J. 2014; 75(6):384-92.
- 17. Sanne B, Mykletun A, Moen BE, Dahl AA, Tell GS. Farmers are at risk for anxiety and depression: the Hordaland Health Study. Occup Med (Lond). 2004; 54(2): 92-100.
- 18. Thomas HV, Lewis G, Thomas DR, Salmon RL, Chalmers RM, Coleman TJ, et al. Mental health of British farmers. Occup Env Med. 2003; 60(3):181-6.
- 19. Parry J, Barnes H, Lindsey R, Taylor R. Farmers, farm workers and work-related stress: Research report 362. Policy Studies Institute; 2005. Available from http://www.hse.gov.uk/research/ rrpdf/rr362.pdf [Accessed 9th July 2019].
- 20. Stark C, Belbin A, Hopkins P, Gibbs D, Hay A, Gunnell D. Male suicide and occupation in Scotland. Health Stat Q. 2006; Spring (29):26-9.
- 21. Welsh Government. Talk to me 2: Suicide and self harm prevention strategy for Wales 2015-2020. Welsh Government; 2015. Available at https:// gweddill.gov.wales/topics/health/publications/ health/reports/talk2/?lang=en [Accessed 9th July 2019].
- 22. Milner A, Spittal MJ, Pirkis J, LaMontagne AD. Suicide by occupation:systematic review and metaanalysis. Br J Psychiatry. 2013; 203(6):409-16.
- 23. Office for National Statistics. Suicide by occupation: Wales. 2019. Available from: https://www.ons.gov.uk/ peoplepopulationandcommunity/ birthsdeathsandmarriages/deaths/datasets/ suicidebyoccupationwales [Accessed 9th July 2019].
- 24. Goffin A. Farmers' mental health: A review of the literature. ACC Policy Team; 2014. Available from https://www.mentalhealth.org.nz/assets/ ResourceFinder/wpc134609.pdf [Accessed 9th July 2019].
- 25. Klaskova K. *The cash flow crisis in farming and* its implications for the wider rural economy. The Prince's Countryside Fund; 2016.

- 26. Welsh Government. Statistical First Release: Farm incomes in Wales, 2017-18. Welsh Government, 2018. Available from https://gweddill.gov.wales/statistics-and-research/farm-incomes/?lang=en [Accessed 9th July 2019].
- 27. Welsh Government. Farm incomes: Additional tables-2017-18. Welsh Government; 2018. Available from https://gweddill.gov.wales/statistics-and-research/farm-incomes/?lang=en [Accessed 9th July 2019].
- 28. Senedd Research. *IN BRIEF: Understanding Welsh exports: a look at the latest Regional Trade Statistics.* National Assembly for Wales; 2017. Available from https://seneddresearch.blog/2017/06/05/understanding-welsh-exports-a-look-at-the-latest-regional-trade-statistics-2/[Accessed 9th July].
- Dwyer J. The Implications of Brexit for agriculture, rural areas and land use in Wales. Wales Centre for Public Policy; 2018. Available from https://www. wcpp.org.uk/publication/the-implications-ofbrexit-for-agriculture-rural-areas-and-land-use-inwales/ [Accessed 9th July, 2019].
- National Sheep Association (NSA). NSA policy position on Brexit. 2018. Available from https://www.nationalsheep.org.uk/policy-work/22562/nsa-brexit-positions-and-activity/ [Accessed 9th July 2019].
- 31. Business Wales (Welsh Government). FARMING connect. 2019. Available at https://businesswales.gov.wales/farmingconnect/[Accessed 9th July 2019].
- 32. National Statistics. *Agriculture in the United Kingdom 2018*. Department for Environment, Food & Rural Affairs (DEFRA); 2019. Available from https://www.gov.uk/government/statistics/agriculture-in-the-united-kingdom-2018 [Accessed 9th July 2019].
- 33. Wales Rural Observatory. *A survey of farming households in Wales*. 2010.
- 34. Welsh Government. Young people into Agriculture Scheme 2018: guidance notes. Welsh Government; 2018. Available from https://gov. wales/sites/default/files/publications/2018-05/young-people-into-agriculture-2018-guidance-for-applicants.pdf [Accessed 9th July 2019].
- 35. Farminguk. Young farmers raise £11,500 for mental health charity. 2019. Available from: https://www.farminguk.com/news/young-farmers-raise-11-500-for-mental-health-charity_53253.html [Accessed 9th July 2019].
- 36. Farm Safety Foundation. Farm Safety Blog: Blue Monday. 2017. Available from: https://www.yellowwellies.org/eg-html [Accessed 9th July 2019].
- 37. Time to Change Wales. Making lives better for everyone by ending mental health discrimination in Wales. 2019. Available from https://www.timetochangewales.org.uk/en/[Acccessed 9th July 2019].

- 38. Farm Safety Foundation. *About us.* Available from https://www.timetochangewales.org.uk/en/ [Accessed 9th July 2019].
- 39. Mind Mid Powys. *Suicide Prevention Pledge*. 2019. Available from: https://midpowysmind.org.uk/suicide-prevention-pledge/ [Accessed 9th July 2019].
- 40. Powys Association of Voluntary Organisations. Rural stress – working together to support the agri sector in Powys. 2019. Available from http:// powysmentalhealth.blogspot.com/2019/01/ rural-stress-working-together-to.html [Accessed 9th July 2019].
- 41. Welsh Government. *Together for mental health:* A strategy for mental health and wellbeing in Wales. Welsh Government; 2012. Available from: https://gweddill.gov.wales/docs/dhss/publications/121031tmhfinalen.pdf [Accessed 9th July 2019].
- 42. Fragar L, Kelly B, Peters M, Henderson A, Tonna A. Partnerships to promote mental health of NSW farmers: the New South Wales Farmers Blueprint for Mental Health. *Aust J Rural Heal*. 2008;16(3):170–5.
- 43. Brumby S, Hatherell T, Jensen J, Nelson, L. 1412 Sustainable farm families across the globe – the most important part of any farm is a healthy farm family. *Occup Environ Med.* 2018; 75(Suppl 2): A466-A466.
- 44. Blackburn J, Brumby S, Willder S, McKnight R. Intervening to improve health indicators among Australian farm families. *J Agromedicine*. 2009; 14(3):345–56.
- 45. National Centre for Farmer Health. SFF programs- Sustainable Farm Families™. Available from https://www.farmerhealth. org.au/sustainable-farm-families/sff-programs [Accessed 9th July 2019].
- 46. Brumby SA, Willder SJ, Martin JF. Milking their health for all its worth? Improving the health of farming families through facilitated learning. Ext Farming Syst J. 2009;6(1):1–10.
- 47. Willder S, Brumby S. Health Status and Behaviours of Australian Farming Men. *New Male Stud an Int J.* 2012;1(2):34–48.
- 48. Brumby S, Chandrasekara A, Kremer P, Torres S, McCoombe S, Lewandowski P. The effect of physical activity on psychological distress, cortisol and obesity: results of the Farming Fit intervention program. *BMC Public Health*. 2013;13(1018).
- 49. Brumby S, Chandrasekara A, McCoombe S, Torres S, Kremer P, Lewandowski P. Reducing psychological distress and obesity in Australian farmers by promoting physical activity. *BMC Public Health*. 2011;11(362).
- 50. Brumby SA, Kennedy AJ, Mellor D, McCabe MP, Ricciardelli LA, Head A, Mercer-Grant C. The Alcohol Intervention Training Program (AITP): a response to alcohol misuse in the farming community. *BMC Public Health*. 2011;11(242).

- 51. Brumby SA, Willder SJ, Martin J. The Sustainable Farm Families project: changing attitudes to health. *Rural Remote Health*. 2009; 9(1):1–13.
- 52. Perceval M, Fuller JD, Holley A-M. Farm-Link: Improving the mental health and well-Being of people who live and work on NSW Farms. *Int J Ment Health*. 2011;40(2):88-110.
- 53. Australian Government. The Department of Health. *Evaluation of suicide prevention activities*. Australian Government Department of Health; 2014. Available from https://www.health.gov.au/internet/main/publishing.nsf/Content/mental-pubs-e-evalsuic [Accessed 9th July 2019].
- 54. Morgaine K, Thompson L, Jahnke K, Llewellyn R. GoodYarn: building mental health literacy in New Zealand's rural workforce. *J Public Ment Health*. 2017; 16(4):180–90.
- 55. Hossain D, Gorman D, Eley R, Coutts J. Farm Advisors' reflections on Mental Health First Aid training. *Aust e-Journal Adv Ment Heal*. 2009;8(1).
- Sartore GM, Kelly B, Stain HJ, Fuller J, Fragar L, Tonna A. Improving mental health capacity in rural communities: Mental health first aid delivery in drought-affected rural New South Wales. Aust J Rural Heal. 2008; 16(5):313–8.
- Hossain D, Gorman D, Eley R, Coutts J. Value of Mental Health First Aid training of advisory and extension agents in supporting farmers in rural Queensland. *Rural Remote Health*. 2010; 10(4):1–9.
- 58. Hossain D, Eley R, Coutts J, Gorman D. Mental health of farmers in Southern Queensland: Issues and support. *Aust J Rural Health*. 2008; 16(6):343–8.
- Public Health Wales. Health Improvement Review: Assessment of Mental Health First Aid. [Internal Document]. Public Health Wales NHS Trust; 2012.
- 60. Morgan AJ, Ross A, Reavley NJ. Systematic review and meta-analysis of mental health first aid training: Effects on knowledge, stigma, and helping behaviour. *PLoS One*. 2018; 13(5):1–20.
- 61. Hadlaczky G, Hökby S, Mkrtchian A, Carli V, Wasserman D. Mental Health First Aid is an effective public health intervention for improving knowledge, attitudes, and behaviour: A meta-analysis. *Int Rev Psychiatry*. 2014;26(4):467–75.
- Richardson R, Dale H, Wellby G, McMillan D, Churchill R. Mental Health First Aid as a tool for improving mental health and well-being (Protocol). Cochrane Database Syst Rev. 2018;(9).
- Walsh M. A nurse practitioner-led farmers' health service: setting up and evaluating a UK project. Aust J Rural Health. 2000; 8:214–7.

- 64. Bethea J. A Health Needs Assessment of the Farming Community in Derbyshire.
 2011. Available from https://observatory.
 derbyshire.gov.uk/wp-content/uploads/
 reports/documents/health/specialist_reports_
 and_assessments/2011/A_Health_Needs_
 Assessment_of_the_Farming_Community_in_
 Derbyshire_%2005aug(3).pdf [Accessed 10th July 2019].
- 65. Syson-Nibbs L. Farm Out Health Project. A participatory health needs assessment of the Local Agricultural Community. High Peak and Dales NHS Primary Care Trust; 2001. Available from http://thefarminglifecentre.org.uk/downloads/ [Accessed 10th July 2019].
- 66. Naik A. Supporting farmer wellbeing: addressing mental health in agriculture and horticulture. A Nuffield farming scholarship trust report; 2016. Available from http://www.nuffieldscholar.org/ our-scholars/videos/aarun-naik-supporting-farmerwellbeing-addressing-mental-health-in-agricultureand-horticulture/ [Accessed 10th July 2019].
- 67. Hughes HW, Keady J. The Strategy for Action on Farmers' Emotions (SAFE): working to address the mental health needs of the farming community. *J Psychiatr Ment Health Nurs*. 1996; 3(1):21–8.
- Thelin A, Stiernström E, Holmberg S. Psychosocial conditions and access to an occupational health service among farmers. Int J Occup Environ Health. 2013;6(3):208–14.
- 69. Botha N, White T. Distress and burnout among NZ dairy farmers. APEN International Conference paper; 2013.
- 70. Hart CR, Berry HL, Tonna AM. Original Article Improving the mental health of rural New South Wales communities facing drought and other adversities. *Aust J Rural Heal*. 2011;19(5):231–8.
- 71. Crockett JA, Hart L, Greig J. Assessment of the efficacy and performance of the New South Wales Rural Mental Health Support line. *Aust J Rural Heal*. 2009;17(5):282–3.
- 72. Kennedy AJ, Versace VL, Brumby SA. Research protocol for a digital intervention to reduce stigma among males with a personal experience of suicide in the Australian farming community. *BMC Public Health*. 2016;16(1):1–8.
- 73. Farmstrong. *Two Year Report on Farmstrong:*June 2015 to June 2017. 2017. Available
 from http://farmstrong.co.nz/wp-content/
 uploads/2017/11/Farmstrong_2YearRep2017Final.pdf [Accessed 10th July 2019].
- 74. UK Parliament. *Agriculture Bill 2017-2019*. UK Parliament; 2018. Available from https://services.parliament.uk/Bills/2017-19/agriculture/documents.html [Accessed 10th July 2019].
- 75. Welsh Government. *Brexit and our land: Securing the future of Welsh Farming. Our response.* Welsh Government; 2019. Available from https://gov.wales/sites/default/files/publications/2019-05/brexit-and-our-land-our-response.pdf [Accessed 10th July 2019].

- 76. Welsh Government. Amaeth Cymru:the future of agriculture in Wales: the way forward. Welsh Government; 2017. https://gov.wales/amaeth-cymru-future-agriculture-wales [Accessed 10th July 2019].
- 77. Agriculture and Horticulture Development Board (AHDB). Exploring the implications of Brexit for agriculture and horticulture in Wales. 2018. Available from https://ahdb.org.uk/knowledge-library/exploring-the-implications-of-brexit-for-agriculture-and-horticulture-in-wales-28-june-2018 [Accessed 10th July 2019].
- 78. Williams GJ. Working Smarter: A report of recommendations to the Welsh Government on better regulation in Farming. Welsh Government; 2011.
- 79. Welsh Government. Written Statement–Working Smarter (Better Regulation) update. Cabinet Statement. 2012. Available from https://gov.wales/written-statement-working-smarter-better-regulation-update [Accessed 10th July 2019].
- 80. Philip L, Williams F. Remote rural home based businesses and digital inequalities: understanding needs and expectations in a digitally underserved community. *J Rural Stud.* 2019; 68:306–318.
- 81. Welsh Government. *Delivering digital inclusion:* a strategic framework for Wales. Welsh Government; 2016.
- 82. Welsh Government. *Improving people's lives through digital technologies.* Welsh Government;
 2018
- 83. Evans RE, Craig P, Hoddinott P, Littlecott H, Moore L, Murphy S, et al. When and how do 'effective' interventions need to be adapted and/or re-evaluated in new contexts? The need for guidance. *J Epidemiol Community Heal*. 2019; 73(6):481-482.
- 84. Time to Change Wales. *Talking is a lifeline*. 2019. Available from https://www.timetochangewales.org.uk/en/campaigns/talking-lifeline/ [Accessed 10th July 2019].
- 85. SAYFC. Are Ewe OKAY? 2017. Available from: http://www.sayfc.org/are-ewe-okay [Accessed 10th July 2019].
- 86. C.A.L.L. *Mental Health helpline for Wales.* 2019. Available from: http://www.callhelpline.org.uk/ [Accessed 1st July 2019].
- 87. SAMARITANS. Samaritans Cymru. 2019. Available from: https://www.samaritans.org/wales/samaritans-cymru/ [Accessed 1st July 2019].
- 88. MIND. We're Mind Cymru, the mental health charity. 2019. Available from: https://www.mind.org.uk/about-us/mind-cymru/ [Accessed 1st July 2019].
- 89. Satinsky E, Crepaz-keay D, Kousoulis A. Making peer-focused self-management programmes work in public mental health. *J Ment Heal Training, Educ Pract.* 2018; 13(5):257–63.

- 90. National Federation of Young Farmers' Clubs. Rural + Campaign. Available from: http://www. nfyfc.org.uk/Ruralplus/ruralplus [Accessed 1st July 2019].
- 91. Welsh Government. Statistical First Release: June 2017 Survey of Agriculture and Horticulture: Results for Wales. 2017. Available from https:// gweddill.gov.wales/docs/statistics/2017/171121survey-agriculture-horticulture-june-2017-en.pdf [Accessed 10th July 2019].
- 92. Clement S, Lassman F, Barley E, Evans-Lacko S, Williams P, Yamaguchi S, Slade M, et al. Mass media interventions for reducing mental health-related stigma. *Cochrane Database of Systematic Rev.* 2013;(7).
- 93. National Institute for Health Care Excellence (NICE). *Behaviour change: general approaches*. Public Health Guideline (PH6). 2007.
- National Institute for Health and Care Excellence. Post-traumatic stress disorder. NICE guideline [NG116]. 2018. Available from https://www.nice. org.uk/guidance/ng116 [Accessed 10th July 2019].
- 95. National Institute for Health and Care Excellence. Common mental health problems: identification and pathways to care. Clinical guideline CG123. 2011. Available from https://www.nice.org.uk/guidance/cg123 [Accessed 10th].
- 96. National Institute for Health and Care Excellence. *Psychosis and schizophrenia in adults: prevention and management.* Clinical guideline CG178. 2014. Available from https://www.nice.org.uk/quidance/cq178 [Accessed 10th July 2019].
- 97. Archer J, Bower P, Gilbody S, Lovell K, Richards D, Gask L, et al. Collaborative care for depression and anxiety problems. *Cochrane Database Syst Rev.* 2012; (10).
- 98. Hawkins J, Madden K, Fletcher A, Midgley L, Grant A, Cox G, et al. Development of a framework for the co-production and prototyping of public health interventions. *BMC Public Health*. 2017;17(1):1–11.
- National Institute for Health and Care Excellence. Preventing suicide in community and custodial settings. Guideline NG105. 2018. Available from https://www.nice.org.uk/ guidance/ng105 [Accessed 10th July 2019].
- Dale J, Caramlau IO, Lindenmeyer A, Williams SM. Peer support telephone calls for improving health. Cochrane Database Syst Rev. 2010;(4).
- 101. Farming Connect Welsh Government. Venture-the Farming Connect initiative successfully matching landowners with those seeking a route into farming. 2019. Available from https://businesswales.gov.wales/farmingconnect/posts/venture-%E2%80%93-farming-connect-initiative-successfully-matching-landowners-those-seeking-route [Accessed 10th July 2019].
- 102. Timebanking UK. *What is Timebanking*? 2019. Available from: http://www.timebanking.org/what-is-timebanking/what-are-the-benefits-of-timebanks/ [Accessed 1st July 2019].



Our Priorities 2018-2030

Building & mobilising skills to improve knowledge and health and wellbeing across Wales

care system focused on sustainable health and the development of a prevention and early intervention Supporting

> determinants Influencing the wider of health

a Healthier Future for to Achieve Working Wales

> Improving mental well-being and resilience

Our Values:

the public from

Protecting

environmenta infection and

threats to

Promoting behaviours healthy

together with trust and respect to make a difference

healthy future for the next generation Securing a



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