Improving Access to Healthcare for Farming Communities

'The Farmers' Health Project'

Report to NHS Executive (North West) of Project RDF/LSC/99/0037

Dr Tim Burnett and Dr Maggie Mort

November 2001

Contents

Acknowledgements

We are especially grateful to the following colleagues for their contributions to this report:-

Josephine Baxter, Stephen Brook, Clare Burdon, Heather Cameron, Fiona Cassells, Pat Clelland, Catherine Gerrard, Dee Howkins, Margaret McSherry, Barbara Maudsley, Denis Millar, Carolyn Nuttall, Bronwen Osborne, Hayley Pinington, Margaret Stelfox, Mike Walsh.

We are indebted to all those anonymous respondents who took the time to talk with the telephone researchers about their experience of the project, and to all the farmers and others who contributed to the Lancaster University Television Unit's production of a video on the Farmer's Health Project.

We are also grateful to all the members of the Project Steering Group who have informed us and contributed in many different ways throughout the lifetime of the Project, and we hope that they will recognise in this report the experiences that we shared.

We owe special thanks to Dot and Bruce Lodge for their contributions, valuable advice and support throughout the lifetime of the Project.

This project was funded by the NHS (NorthWest) R&D Fund; The North West Development Agency (Cumbria Rural Development Programme and Lancashire Rural Development Programme). Additional funding for support workers was provided by Joint Finance and the Bowland Initiative (EC/MAFF, now DEFRA). A small grant was made by the Foundation of Nursing Studies to support nursing related dissemination.

We would also like to acknowledge the later support of the Countryside Agency in funding a dissemination initiative so that the lessons learned from this project could be made accessible throughout the UK.

Figures and Appendices

SUMMARY

Nature of the Problem - farming communities are by their nature isolated from mainstream services, and have developed a culture of self-sufficiency and stoicism. Evidence suggests their health needs are actually greater than in many other sectors of society; yet increased demands on services have undermined accessibility for rural inhabitants.

Plan of Action - the 2-year Farmers' Health Project aimed to bridge this gap between health care need and service provision in the farming communities of South Lakeland and North Lancashire, through a Nurse Practitioner-led mobile outreach initiative, which involved visiting auction marts, agricultural shows, other gatherings and making farm visits.

Research Objectives - a) to use action research to examine the particular health needs of the farming communities in both study areas and to address inequalities in the provision of health care to these communities; b) to pilot the role of the Nurse Practitioner in creating new care pathways which cross the boundaries of primary/secondary care; physical/mental health; and between health and social/welfare provision.

Research Outcomes & Findings - Significant progress was demonstrated towards achieving these objectives. The ***particular health needs of farmers have been documented*** in depth, encompassing acute and chronic clinical conditions, mental health problems, and occupational hazards such as accidents and pesticide poisoning. **Significant unmet need has been demonstrated and addressed**. The relationship between clinical and non-clinical conditions and between health and social needs, has been extensively explored. Farmers' usage of the project increased steadily until the advent of the foot and mouth disease epidemic. There is strong evidence that the Project has ***reached those targeted as most needing but under-using mainstream health care – men in the age-range 30 to 65 years.***

Nurse Practitioner skills in a mobile outreach setting have been greatly developed, contributing to the national debate around this role. Such skills include the management of newly presenting undifferentiated clinical problems likely to occur in the target group, which formed a substantial part of the Nurse Practitioner's workload. It was recognised that time was needed to establish networks and communicate with other agencies in solving problems which presented initially as clinical. The location of the project at the intersection of primary, community and secondary care, coupled with the current (much criticised) medico-legal framework unfortunately prevented the nurse practitioner from using existing prescribing skills and experience. *(See Recommendations)*

The action research evidence shows that this new model of providing health care to farmers, farmworkers and their families is ***effective, complementary to that of the general practitioner, and demonstrates a multi-agency approach to addressing the complex problems found in this community.***

Keywords: Rural Health; Outreach Service; Action Research; Nurse Practitioner; Access to Healthcare

INTRODUCTION AND BACKGROUND

The Farmers' Health Project ('the Project'), which began in July 1999, arose out of shared concerns among health professionals, social agencies and charities in the South Lakeland/ North Lancashire area about problems experienced by the local farming community in the 1990's. There was particular anxiety about the effect on the mental health of livestock farmers during the drastic fall in income resulting from the BSE crisis and other market factors. But the concern was also more general, encompassing the vulnerability of farmers to the dangers inherent in their work from accidents and chemicals, and the chronic occupational conditions (such as arthritis) that many of them develop. Against these clear needs was the observation by general practitioners and community psychiatric nurses that farmers were under-users of health services. Many reasons were given for this: farming communities' culture of stoicism and self-reliance; geographical isolation; the organisation of primary care which makes it difficult for them to attend, and the deficits in professional knowledge about farm related health problems (e.g. zoonoses and effects of pesticides).

These observations were made at a conference held at Westmorland General Hospital entitled 'Mental Health Issues for Rural Practices' on 26 February 1998. A multi-disciplinary working group (health workers, academics, agencies and charities) was set up following this event to look at possible solutions to the problem, and attention was drawn at the first meeting to a doctoral research study and paper by Gerrard (1998). Her analysis of interviews with 150 farmers in three counties, and subsequent interviews with health professionals, concluded that farmers were a high risk group whose health needs were not being met. She had called for an *action research project* to pilot a dedicated farmers' health scheme. Such a project would reach into the farming community and have an awareness of the complexities of farming life. The working group insisted therefore that further primary research was **not** needed, but that a research bid *incorporating action and evaluation* should be developed. This work was to emphasise the *development* part of Research and Development. The resultant bid for 2 year funding was eventually successful and also attracted about 35% match funding from the North West Development Agency (NWDA) and an EC/MAFF scheme (Bowland Initiative) and Joint Finance. This match funding allowed for the recruitment of primary care support workers.

The project management team then began recruiting two Nurse Practitioners, each with a support worker, who would use a purpose designed and equipped vehicle to offer access to the health service in the places farmers frequented – mainly the auction marts, but also agricultural shows and (if invited) on farms.

The central aim of the study therefore was to test the feasibility and workability of this model for improved access for a marginalised community, using action and ongoing evaluation.

Action Research was the preferred framework for a number of reasons:

- Gerrard's earlier study demonstrated the communities' needs in detail
- The problems in the farming community were urgent and serious
- Existing patterns of access were known to be poor

- Intervention in a cycle of inquiry and evaluation was preferred by the working group
- The problems were seen to be complex and multi-faceted.
- Ongoing evaluation would allow for user views to be incorporated into delivery.

Key principles were established which would underpin the project:

1. No one from a farming or related occupation accessing the project would be turned away.
2. Users' problems would be dealt with in the first instance wherever possible, rather than 'signposted' to other 'experts' or services.
3. Consultations would be user-led, the care offered would be supportive and non-judgemental.
4. Care would be offered in the farm/rural environment as far as possible.

METHODS: ACTION RESEARCH FRAMEWORK

In a piece of action research, a variety of methods are often used to facilitate ongoing evaluation and action. Here a **mixed method approach** was adopted, which was based on the **building of non-hierarchical structures** for the process of inquiry, action and evaluation to be managed. What follows is an account of these structures as methodological tools for development. Qualitative and quantitative methods of data collection are also described.

1. Evolution of the management structure

A project Management Group was devised to act as the principal action learning set for the initiative.

This **Management Group** was comprised of members of the previous working party whose experience was seen as necessary to guide the Project. It included the five co-applicants who represented general practice, health research, nursing studies and community psychiatric nursing. Management expertise was provided by the Mental Health Services Manager and Primary Care Nursing Manager from the then Bay Community NHS Trust ('the Trust'). The group also included a health visitor and a primary care nurse practitioner, both highly experienced.

Throughout the course of the Project, the Management Group met monthly with a formal agenda. (In the absence of a secretary, minute taking was rotated round the members as a small exercise in building understanding.) Early on, it was realised that smaller, special interest ad hoc meetings would be required, so a sub-committee structure was established to discuss matters in the four separate areas of primary care, mental health, the nurse practitioner role, and research needs; any decisions being referred to the full Management Group for approval.

It was also clearly necessary for the Project to report back to and be informed by the working party that set it up, so this was reconstituted as a Steering Group that would meet every three months immediately following a Management Group meeting. In

effect the Steering Group acted as a wider learning set with members who could offer strategic, policy and practical advice, in some cases from complementary roles and disciplines.

The **Steering Group** included all members of the Management Group together with representatives of the funding bodies and health authority, of Cumbria County Council and the South Eden Project, of the NFU and the farming community, of Cumbria Farm Link and the CAB, and others from the Bay Community Health Promotion Unit, MIND, Lancaster University and general practice. This meant that a possible 40 people could attend the meetings, although the average attendance during the course of the Project was 18.

A formal agenda was sent out a fortnight before each Steering Group meeting, and secretarial support was available. Both Management and Steering Group meetings were chaired by Dr Tim Burnett (lead applicant), but the ethos throughout remained non-hierarchical – a concept that occasionally challenged traditional attitudes. Once they had been appointed, the Nurse Practitioner/Nurse and Support Workers, (the 'Project Team') became integral members of both groups.

A full set of minutes for both bodies for the 2-year period is available on request. In the spirit of action research, these are now being reviewed as data for a further study into the process of innovation in health care, being carried out by a doctoral student (funded by the Royal College of Nursing) at Lancaster University.

2. Recruitment process of the Project Team

The first task of the Management Group was to recruit the staff with the necessary skills and background to undertake the sensitive and complex tasks anticipated.

Agreement was reached with the Trust to use its own recruitment procedures. The Project was to be **Nurse Practitioner** (NP)-led, and job specifications and person requirements were drawn up by the Management Group, with advertisements being placed in the local and national nursing press in April 1999. This resulted in more than 60 enquiries and eventually 30 applications, from which 6 were selected for interview on the 14th June 1999. Only one these candidates, Ms Dee Howkins, had both nurse practitioner qualifications and a background in farming/agriculture, and she was duly appointed. From the others, Ms Carolyn Nuttall, a school nurse from a horticultural background, was appointed, with arrangements being made for her to develop the necessary clinical skills by undertaking nurse practitioner training modules at St Martin's College, Lancaster during the first year of the Project. However, this meant from the start that there was a change of role from the Project's intention (see page 5 above) of appointing a Nurse Practitioner for each of the two areas: instead, there would be a Nurse Practitioner in one area and a Nurse in the other, and expectations had to be adapted accordingly *(see Findings for the implications this had*).

The Management Group decided it was practical for the Trust to act on behalf of the Project as the employer of the nurses (rather than e.g. a primary care centre), and a two-year contract was agreed, with work starting on July 26th 1999. Early publicity

was vital both for the farming community and the wider health service, and a press launch was arranged on the 21st July on farms in both North Lancashire and South Lakeland. All local primary care teams received a letter about the new initiative at this time. The launch resulted in useful coverage in local newspapers and radio.

There had been no provision or funding in the R&D bid for the appointment of **Support Workers** (SW**)**, but it was recognised very early on that the nurses would need assistance to enable them to devote enough time to clinical and health advice work. Fortunately, funding became available through Joint Finance and the Bowland Initiative for a full-time SW in South Lakeland (who under the JF rules would undertake a NVQ in Care) and for a part-time SW in North Lancashire. These two posts were advertised in July with the short-listed candidates being interviewed by a sub-group on the 5th August 1999, with Mr Denis Millar being appointed in South Lakeland and Mrs Josephine Baxter in North Lancashire.

In line with the aims of action research and the philosophy of the project which prioritised the cultural aspects of access to healthcare, it was specified during recruitment that **all Project workers should either come from farming backgrounds or have extensive experience of farming communities.** This came to be seen by project users as one of the main strengths of the Farmers' Health Project. (*See Telephone Evaluation*)

3. Process of establishing the Project Team

The team members were pioneers, in the sense that there were no known precedents or existing models of service in the UK. In effect, they were faced with a 'blank sheet' and had to use their experience and existing know-how in taking the first steps in the complex task being undertaken. Whilst was *some* structure in place, a lot more needed to be purpose built and often amended in response to the team members' experiences on the ground. In addition, in practical terms, it was some months before it could be said that the team was fully equipped.

The following summarises the structures that were set up to enable the Project to function: -

- It was decided there would be a 'base' in each of the Project's two areas, and that these would be at **Grange Clinic** in South Lakeland and **Carnforth Clinic** in North Lancashire. Both offered the advantage of contacts with other primary health care workers. The relationship between 'base' and mobile outreach working had to be worked out on the ground when it was discovered how much healthcare could take place in 'non-health' settings.
- Both bases were provided with a computer, telephone, mobile telephones and pager. Leaflets and stationery were purpose designed for the project.
- The NP and Project Nurse arranged access to **pathology laboratory support** for processing any samples or specimens they needed to collect in the course of seeing patients. Much time was also spent in attempting to set up a scheme which would allow the NP to prescribe (see Recommendations).

- Protocols were established by the team for **keeping records** on the patients who registered with the Project, with confidentiality and other NHS rules applying.
- The Project Team designed standard forms for use in either **notifying a patient's GP** of the Project's intervention, or referring the patient on for further primary or secondary care.
- The SWs established a computer database for **data collection** for research purposes, with anonymity assured. This included a consent form for patients who were willing to be contacted by telephone researchers later undertaking evaluative interviews with a sample of users. In addition, **reflective diaries** were to be kept by most members of the Project team.
- Geographical boundaries of the **Project areas were influenced largely by auction mart locations**, some of which are situated at the extremes of health authority areas *(Figure 1)*. The construction of Project boundaries therefore needed to be flexible. Maps were acquired onto which a 'project area' was sketched. But it was recognised that some farmers or related workers would come from outside these areas to attend the designated auction marts, and so become users of the service. Again, that no one accessing the project should be turned away was a firmly agreed principle of this Project.
- The visible presence of the Farmers' Health Project in the farming community was to be achieved largely through a **high roof vehicle** or van, equipped for confidential interviews, examinations and diagnostic procedures. With appropriate livery on the outside, this would act both as a mobile clinic and as an advertisement for the Project when taken to auction marts and agricultural shows. While ordered in June 1999, this was not delivered until October, and unfortunately was not fully satisfactory until January 2000.
- The NP and Project Nurse needed the usual **diagnostic equipment** (sphygmomanometer etc), and after some delay were also provided with an ECG machine when it became clear that this would enhance the range of skills they could use and the data which could be gathered.
- A **clinical supervision** structure for the nurses was available through the Primary Care Nursing Manager and for mental health problems from the CPN attached to Project. There was also mentoring from the nurse practitioner, health visitor and general practitioner members of the Management Group.
- Both teams (Grange and Carnforth) would report back to the monthly meetings of the Management Group, and provide **written reports** to the quarterly Steering Group meetings.

4. Evaluation Plan

This included:-

- Regular activity reports and reviews by Management and Steering Groups
- Analysis of case notes (anonymous)
- Telephone evaluation
- Analysis of anonymised reflective diary entries

The Project Team's regular reports to the Management Group were one way in which the Project as a whole could review and guide its progress.

Built into the Project also was an independently run telephone evaluation with users of the scheme. A random selection was made from those users who had agreed to receive a call (*see under Findings*). Approval from the Local Research Ethics Committees for this procedure was obtained before telephone evaluation began.

Case notes were analysed for demographic and clinical data.

Reflective diaries were called upon to illuminate processes of care, emerging expertise and new ways of working.

Research capability building. In line with the requirements of the NHS R&D Strategy, the Project developed the research capability of the applicants and the Project Team. Clinician and manager members of the Management Group were also asked to reflect on their involvement in the Project and to identify individual learning and development objectives as a result of this involvement.

5. Development of the outreach role

Essentially the Project was designed to offer healthcare in non-health settings. The weekly auction marts held in different towns throughout the Project area were places where farmers, and sometimes their families and those in allied occupations, gathered together, and clearly the regular appearance of a Nurse Practitioner in a mobile clinic van would be a way of creating new access to healthcare and encouraging health awareness more widely. The delay in delivery of the van for the first few months hampered this particular route and meant that efforts were channelled into the other critical activity, **'network building'**.

The networks were broadly of two sorts: those within the farming community, and those of the wider rural community. It was part of the NP and Project Nurse's task to become involved in farmers' organisations such as Young Farmers and Women's Institute, partly to communicate what the Project was offering and partly to create opportunities for health promotion. But it was also necessary for the nurses to become familiar with existing pathways to health care, and to build links with the primary care teams. Equally important was the need to build up knowledge about the agencies and charities which might offer help in resolving some of the problems farmers were encountering.

A **media presence** was seen as important in raising the profile of the Project, both in the farming community and more widely. The farming press and radio and also the nursing press were particular targets. A pro-active approach to this, i.e. issuing press releases and staging events, later gave way to a more re-active response as media interest gathered (*see Findings and Outcomes*).[1]

[1] An extensive file of press cuttings has been maintained and is kept at the Institute for Health Research, Lancaster University.

The Team also devised and produced a series of Project leaflets and occupationally sensitive leaflets for distribution through such avenues as NFU mailings, GP surgeries and auction mart cafes. The first set of leaflets described the healthcare on offer, while the next set revolved around relevant occupational health topics. Again, this targeted both the farming community and health professionals.

The formal casework of the NP and Project Nurse would begin when the first patient registered with the Project. In spite of the publicity effort, it was recognised that uptake would be very slow at first. For a farmer or farmworker to take the first step towards the Project, a high degree of trust had to be established. **It was impossible to anticipate how many people from this community would 'self-refer', neither was it known how many referrals to expect from the agencies and health professionals** who were targeted in the publicity**.**

The service that the Nurses offered was in effect a one-stop drop-in clinic to anyone attending the auction marts visited by the Project van.[2] While a 'health check', involving blood pressure measurement, urine testing and appropriate physical examination, was an unthreatening way to attract clients from such a reticent community, the specific nature of the Nurse Practitioner training meant that any condition that was found at a health check or that presented individually could be appropriately dealt with. In addition, as a result of all the networks built up, it was also possible to offer referral to other agencies for problems to do with finance, farming business, welfare rights, or assistance during illness or hospital treatment. However, it was agreed that the Project's philosophy was to *avoid* becoming a 'signposting' initiative. If a member of the farming community had taken the first step in accessing the project, they should not be passed on to a different 'expert', but receive support then and there. Other agencies and health professionals would become involved when necessary, but the concept of follow-up by the Project team was seen as critical to maintaining trust. Follow-up within the project also maximised the action learning process, so that the NP built up extensive knowledge about health and social outcomes (*see Outcomes*).

The underlying principle of the Project's mobile clinic - that it was a new way of offering **NHS** care, free of charge and dedicated to the needs of all members of the farming community – was one that needed to be reinforced to its clientele, many of whom would at first suspect from its novelty that there must be 'a catch in it' (like having to pay). It was intended that such suspicions would gradually be overcome by the familiarity of seeing the Project vehicle turning up every week at the auction marts and the team members becoming seen as 'regulars'.

6. Parallel studies undertaken

a) A review of farm accidents in the Project area took place from 1999 to 2000.

[2] There are important similarities between this project and the nurse-led walk-in centres which are currently being evaluated. The essential difference is the type of community being served and the geographical scale of the FHP (see map of project area).

This was done through gathering data from 5 general practices (Ambleside, Bentham, Broughton-in-Furness, Dalton-in-Furness, Kirkby Lonsdale), and from an A & E Department (*see Appendix 1*).

b) There was a review of Coroners' inquest records (with permission of coroners) to obtain details of farm related deaths in the Project area. This included findings of suicide and accidental death and how far if at all, health care services were involved (*see Appendix 2*).

FINDINGS AND DISCUSSION (1)

The Context for Data Collection

The Project Team spent the first few months promoting itself around a large geographical area. This began with the **media launch**, and was followed by regular **attendance at auction marts**; so that through circulating and engaging people in conversation, the Team could explain what was being offered. The auction marts visited included **Clitheroe, Lancaster, Bentham, Sedbergh, Kendal, Ulverston, and Broughton-in-Furness**. *(See Fig 1)*

The Project's launch coincided with the start of the **agricultural show season** in the North West and the Team between them attended 16 shows. They established **links with a wide variety of agencies** throughout the farming community, mostly on an individual basis through going to meetings and training sessions, or giving presentations. The networks created through this activity included the National Farmers' Union, the Rural Care Advisory Group, Young Farmers, Royal Agricultural Benevolent Institution, Primary Care Groups and local general practices, the Bowland Initiative, Rural Stress Network, Voluntary Action Cumbria, the Red Cross, Myerscough Agricultural College, rural Citizens' Advice Bureaux, Cumbria Farm Link, ruralMinds, Samaritans, Campaign Against Living Miserably (CALM), Cumbria Youth Service and Age Concern[3]. The time and effort spent establishing these networks paid dividends in the long term both in solving some of the individual problems that were later to present, and when the advent of the **Foot and Mouth (FMD) outbreak caused an abrupt halt in the Project's mobile outreach work and necessitated a complete re-think of ways of reaching the farming community**.

Factors affecting data collection

With the time taken to set up the initiative and build trust within the farming community, **the formal casework of the Project was fully functioning for just 12 months ending in February 2001 with the intervention of FMD** *(Figure 2)*. The quantitative results discussed below thus relate mainly to this period.

[3] For a comprehensive list of organisations and participants see Appendix 3.

Other factors also played a part in the nature of the data collected by the Project workers. In the early part of 2000, it was noted that uptake of the service in the auction marts in South Lakeland was significantly less than in North Lancashire, and the reasons for this were not obvious.

- It was entirely plausible that in a more rural area such as South Lakeland, the farming community was more comfortable with accessing the service already offered by the local GPs[4]; or there might be something more reticent and stoical about these communities; or it was possible that this was due to differences in the service the Project was offering in that area.
- We do know that there were geographical, structural and professional differences between the two areas. The level of engagement with the project by the NFU in North Lancashire was consistently greater as evidenced in the number of NFU referrals, help with publicity and participation on the Project Steering Group. The climate of support from the then PCGs was warmer in North Lancashire, with three practices taking particular interest in aspects of the work of the Project. Such interest and support was less visible in South Lakeland.
- The Management Group took the view that the burden on Ms Nuttall of undertaking the St Martin's College nurse practitioner training modules, supervising the required NVQ training of her attached Support Worker and developing the Project in South Lakeland was too great. It was therefore decided that she should withdraw from the training modules and develop the role as a nurse with special interest in *health promotion* for the farming community. In effect this recognised that there were differences in the type and range of interventions and service between the two areas.

Both Management and Steering Group meetings agreed that these differences and changes were realistic. For a short time, it meant that the Project was operating as two teams with a stronger health promotion focus in South Lakeland and a more interventionist clinical/social role in North Lancashire, until it became clear that what was needed was one team in which these different roles operated throughout. While this was always thought to be desirable, it had not been proposed before because of the huge geographical area which each nurse would then have to cover.

Working through these practical developments and implementing change experimentally became a very important aspect of the **action research** and informed the recommendations which could be made for **service development** once the research project came to an end.

The impact of FMD on the project's work was very great. Because the Team was from farming backgrounds, they were affected personally by the tragedy and themselves endured some of the anxiety and uncertainty which spread across this whole community. Bio-security made contact and access very difficult and was time-consuming. The benefits of the networks already established and the climate of trust

[4] We think this is unlikely on the whole. One interview with two GPs in a large S Lakes practice reported that very few farmers ever attended. Other primary healthcare professionals in the area have concurred.

which the Project Team members had by this time created, placed the Project in a pivotal position for providing support to distressed farmers and their families. Strategies for keep the Project going included moving to a telephone role and assisting those suffering hardship to apply for crisis grants to get them through the worst times. The Project was responsible for facilitating small grants worth at least £20,000 being paid to local farmers[5] (in the event acting as referee for ARC Addington Trust). Its successor is therefore ideally placed to offer further support once the auction marts re-open: a time when, it is agreed, many of the serious health/mental problems caused by the epidemic are likely to appear.[6]

Clinic Work: Patients who registered with the Project

In the 12 months prior to the onset of FMD in early 2001, a total of 277 patients (representing 500 consultations) were seen for consultation and registered with the Project. It must be remembered that this represents the top tier of the pyramid of the Project work. In addition to the analysis below, many of the registered patients needed follow-up consultations, some of them being seen 5 or more times.

Analysis of Clinic Work

Of the 277 patients, the Nurse Practitioner saw 211 and the Nurse 66. Overall, the ratio of men to women was approximately 5:1.

Very few patients were referred to the Project by other health professionals such as GPs and CPNs; there were more through agencies such as the NFU. The vast majority (85%) were **self-referred**, *(see Fig 8)* using the availability of the Nurse Practitioner and the clinic van to drop in, if only for 'just a check up'. Though the **age range** of patients was wide, 70% were over the age of 50 *(Fig. 3)*, fitting precisely with the age group the Project wished to reach – the older men likely to have health problems who only rarely found their way to their GPs' surgeries. (A similar age range pattern was found in the farm accident survey – *see Appendix 1*.)

Of the 211 patients seen by the Nurse Practitioner (NP) –

- **85 presented with specific complaints.**
- The specific complaints showed a spectrum of conditions *(Fig. 4)*. The largest group (21%) was musculo-skeletal problems including those resulting from trauma, while cardiovascular (13%) and mental health (12%) problems featured highly. There was also a significant number (8%) of sufferers from chemical poisoning, especially organo-phosphates (OPs): this could have been influenced by the NP's acquiring an expertise in this field. (*See Outcomes*)
- Other conditions included prostate problems, 3 previously undiagnosed cases of chronic obstructive airways disease and one each of hypothyroidism and

[5] This is a conservative estimate since the outcome of applications was not always known.

[6] This expectation is supported by the comments of the vet David Black, at the Rural Health Study Day at Lancaster University on 4 October 2001. He recalled that after the 1967 FMD epidemic, farmers became very distressed after the crisis was over when their animals developed small/routine illnesses.

Type 2 diabetes, and problems to do with severe osteo-arthritis, varicose veins and ankylosing spondylitis.

- The NP's management of these conditions included investigations (blood tests, ECG, X-Rays) in 53 cases, followed if necessary by appropriate referral. This was usually to the patient's GP: of the 51 so referred, 12 were already being treated by their GP and needed review, while the other 39 were not. Other referrals included to voluntary bodies and to hospital.
- The NP made follow up arrangements for 58 of the patients who presented with specific complaints, and of these 48 (83%) subsequently re-attended at the clinic van.
- Of the 85 patients with specific complaints, 59 (69%) were not currently receiving treatment from their GPs. Very few of these complaints were acute, 29 (34%) having existed for 8 to 30 days and 37 (43%) for 31 days or more. This supports the observation of the culture of stoicism among the farming community, and the possibility that that a mobile outreach service could succeed in breaking down the barriers created by that stoicism *(Fig. 5).*

➢ **126 presented asking for a 'check up'.**

- All these patients were given a general health screen with an appropriate medical history being taken.
- **56** (44%) had no significant factors in their history, nor any abnormal findings on examination.
- The remaining **70 patients (56%) were found to have significant health problems** (i.e. problems needing treatment or active management). Only 17 of these were currently being managed by their GPs.
- The problems uncovered showed a different pattern from those above, the largest groups being mental health (20%) and cardiovascular (18.5%) troubles, while musculoskeletal ones only accounted for 6%. This again may be indicative of what the farming culture perceives is, and is not, acceptable to suffer from: for example, that a farmer finds it far easier to articulate his problem with chronic arthritis than with chronic depression.
- As part of the 'check up', all patients were given health promotion and lifestyle advice relevant to their health problems.
- The 56 patients with no obvious health problems were still offered advice. Some, for example, were given 'flu injections; and some needed referral for financial help, and for counselling for unresolved problems such as bereavement.
- Of the 70 patients who were found to have significant health problems, 29 were referred to their GP – 23 for management of a previously undiagnosed problem, and 6 for review of previous management. Blood investigations were carried out on another 29 patients, and of the remainder 12 needed referral for counselling and 6 for financial advice (to the CAB) or assistance (from RABI).

Of the 66 patients seen by the Project Nurse (PN) –

52 presented with specific complaints
14 presented for a health check

These cases cannot be analysed in the same way as those above, partly because of the changes in organisation that took place towards the end of the Project's first year (see above, and Findings 2), and partly because the PN's skills were different from those of the NP. However, even in this smaller group of patients, some broadly similar patterns emerge, such as follow-up consultations including 7.5% of patients being seen five or more times (as with the NP's cases). (*See Fig. 7)*

There was a comparably high rate of self-referral (76%), with the same age-range pattern peaking in the 60 to 69 year-group. Once again, the main categories of clinical problems were cardiovascular (19%), mental health (18%) and musculo-skeletal (14%); and while there were fewer cases of pesticide poisoning (3%) there were more of minor trauma (13%). It is difficult to identify whether this was the result of the expectations of the service of those who made use of it in the South Lakeland area, or whether the PN's particular interest attracted minor trauma cases. Traditionally, the GP's surgery was the first (and in 75% of cases the only) port of call for the treatment of trauma suffered by farmers, but that availability would appear to have diminished as demands on GP services and complaints against them have increased, and it is certainly possible that this was another aspect in which the Project was meeting a need.

Summary of Clinic Work Findings

The mainspring of the Farmer's Health Project was in the exploration of a method of addressing the unmet health needs of a marginalized community. The data collected through the clinic work strongly supports the success of mobile outreach health care delivery as a route for unmet need to be articulated *(see Fig 5)*. Thus –

- The target age group was men over the age of 50, and 70% of the patients registering with the Project were in this category.
- Of those who presented with specific complaints, 77% had suffered for more than a week and 43% for more than a month; 69% were not currently receiving treatment from their GPs. This not only reinforces the observation of the culture of stoicism, but also suggests that there exists a problem of access to mainstream primary care.
- The usefulness of health checks is often questioned, but there can be few communities within a Western society such as the UK where a 'check up' reveals significant health problems in 56% of those examined. This in itself justifies the sensitive 'user friendly' approach of offering health checks, as well as the Nurse Practitioner's particular skills in carrying them out.
- The major health needs of this community are problems with their mental health and with the cardiovascular and musculo-skeletal systems. This was already suspected, but the data presented here reinforces these needs and in particular the degree of mental health problems.

- The question of accessibility occurs throughout the findings, with a complexity that is both spatial and cultural. The high number of self-referrals (76-85%) must point to the convenience of the Project vehicle (clinic) van being physically present in places where farmers meet, but to that must be added users' awareness of the Project Team's knowledge of farming and its problems. The convenience of the service to its users was also underlined by the number (83%) who attended for follow up after a problem had been diagnosed. The closure of auction marts with the advent of FMD has emphasised the opportunistic character of farmers' attitudes to seeking healthcare.
- The need for sensitivity in approach to a marginalized community is perhaps illustrated by the differences in the ways that problems were presented. Some of those who wanted a 'check up' actually had problems (especially mental health ones) which they did not know how to articulate; while others would overcome this by presenting a 'specific' complaint that was more trivial than their main problem (a behaviour pattern often seen in general practice). This emerges in the number who had 'arthritis' (21%) and mental health problems (12%) as *specific complaints*, whereas on *health check* these figures were 6% and 20% respectively *(Fig. 6).* Patients 'just wanting a check up' often knew they had something wrong with them, but they might not admit this – and some would be from that part of the culture that regarded it as the health worker's job to find out what was wrong, in the same way as a vet would diagnose an animal's problem. By admitting nothing, they could test out and see 'how good you are', and only after a proper history and full examination showed a medical condition would they admit that they had thought something might be wrong.
- Minor trauma cases illustrated a recurring need that is not met because of isolation and the difficulties of access to GP's services and A & E departments.
- Responding to the needs as they occurred led to members of the Project Team developing expertise in conditions found in the farming community, such as pesticide poisoning and zoonoses. *Skill development was patient led.*
- The restrictions imposed by the FMD outbreak in February 2001 brought an end to the Project's visits to weekly auction marts. Alternative strategies of reaching farmers were adopted, using the local media and the many contacts already established to publicise the ways in which the Project could be reached, and further referrals did occur but on a much smaller scale than before FMD. Trials were carried out of taking the Project van to new sites such as supermarket car parks and Myerscough College but as in the first few months of the Project, the uptake was predictably slow.

Case Studies

The following case studies are included as examples of the Project Team's experiences and ways of working. The studies are drawn from both the clinical records and the reflective diaries kept by the Project Nurses.

Case 1 A 73 year old farmer, who was milking three times a week while his son was recovering from a fractured shoulder, presented with a severe thrombo-phlebitis of the leg, and was admitted to hospital. The following week, the NP was surprised to learn he had come home on no medication at all, even though his leg was still very red from ankle to thigh. She explained to him the importance of any breathing difficulties and further signs of thrombosis to look out for; and it was lucky she did, as a change in his breathing later in the day alerted him to contact his doctor quickly. He was admitted to hospital again and started on anticoagulation therapy, and thereafter went to see the NP weekly to check on progress.

Case 2 A 63 year old patient had been getting monthly repeat prescriptions for Nifedipine from his GP for 3 years, but had had no blood tests done during that time. During the consultation with the NP, he mentioned that he had been feeling 'tired all the time' so she did blood tests – which came back as abnormal. She arranged for him to see his GP for further investigations, at the end of which, in a 5 minute appointment, he was given the diagnosis of Chronic Lymphatic Leukaemia and told it was not as bad as in a young person. He went back to the NP, who discussed the diagnosis fully to increase his knowledge and understanding, and advised him on ways of helping himself to stay well.

Case 3 illustrates the way in which the FHP used assertive outreach, a whole family approach and networking with a variety of statutory and non-statutory agencies.

A 50-year old man (J) had sustained severe head injuries in a car accident some years ago. He was left with residual memory loss, and was on medication from his GP for epilepsy and depression. He needed supervision at home from his 80-year old father and 78-year old mother, who also cared for a teenage grandchild. They heard of the Farmers' Health Project through the Project Support Worker at an agricultural show, as a result of which they agreed to being contacted by the NP.
Her intervention consisted of a full health assessment, and referral to the clinical psychologist at the Regional Brain Injury Unit. She also administered 'flu vaccines to J's parents, and helped them obtain financial assistance towards central heating as the cold was aggravating J's father's heart condition. These interventions were all successful in improving the family's quality of life.

<u>Case 4</u> concerns a 29 year old male Wool Grader (H) who telephoned the Project after his sister had noted its number from the van. The interventions from the NP enabled several workplace health and safety issues to be addressed: the patient and his work colleagues were more accurately informed about the side effects of pesticide poisoning, and the patient himself was actively involved in a plan to improve his mental and physical good health.

When H presented to the NP, he reported a complete change of personality, with ideas of self-harm, panic attacks, very poor concentration and mood swings. He had previously seen his GP about this, and had been treated for panic attacks and depression. He had a past history of irritable bowel syndrome but otherwise nothing significant, and he used to be a physically very fit Karate instructor.
However, what he had noticed was that after handling dip-tinted lambs/hogs wool he developed symptoms of severe headaches, extreme lethargy and itchy throat, and this had led on to his presenting symptoms. As a result of his contact with the Project, he was put in touch with the Pesticide Action Network, the Organophosphate Information Network, and the Pesticides Trust, and was well supported by his GP. Also, the HSE inspected his workplace and made recommendations to use masks and latex gloves (although H and his colleagues had already tried these and felt them to be inadequate).

<u>Case 5</u> Farmers and other self-employed people are sometimes caught in a vice between their health needs and the demands of their business, and this case illustrates how the Project Nurse was able to help one farmer out of such an impasse.

.
L was a 72-year-old man who ran his 300-acre farm with his disabled wife. He suffered from such severe osteoarthritis of the hips that at auction mart he was unable to get out of his vehicle. His GP had referred him for urgent hip replacement, but was concerned that he would not take up the hospital place because there was no one to do the farm work if he did. The Project was asked for advice about preparing L for this admission to hospital.
The Nurse managed to develop an excellent rapport with a very proud and self-sufficient man, and both to persuade and to help him to access the Royal Agricultural Benevolent Institution. As a result, he received assistance in employing a worker on the farm for the duration of his hospital stay and convalescence, and until he was fit enough to return to work himself.

Non-clinic work

For every registered patient, there were many more who interacted with the service through conversations at the marts or at meetings where the Project was represented.

- A 'best estimate' was that, **for every patient registered, the Project team spoke informally about health matters to 5 other members of the farming community, and indirectly reached a further 20 people** via the Project's health promotion activities.

- Following the decision in June 2000 for the Nurse Practitioner to take over the clinical service, the Project Nurse took on the task of providing **health promotion**. One aspect of this was regularly to attend the marts with health information on boards and distributing leaflets. There were seasonally targeted 'events', e.g. child accident prevention in summer and chemical poisoning during the dipping season. These 'events' provided a solid reason for being in the mart and an acceptance from the local community, and have led to boards for health promotion material being permanently sited at marts.

- Some farmers had no qualms about discussing their 'minor ailments and injuries' across a cafe table with the Nurse and in front of their fellows, and could talk extensively and openly about stress and depression and how to find help for friends and relatives as well as themselves. The content of conversations could be used to influence the subject matter and method of delivery of the health promotion material.

- The Project Nurse also helped organise **First Aid** training for auction mart staff and a farmers' group, and further sessions in this would have been held but for FMD preventing them happening. The British Red Cross and the St. John Ambulance were brought together with the local Agricultural Society to look at sustaining this provision in the future. The findings of the Farm Accident Survey (*see Appendix 1*) suggest that First Aid training should be vigorously pursued and targeted especially at younger groups such as the Young Farmers' Clubs.

Telephone Evaluation

Farmers and others who had accessed the Project were asked, using the consent form, if they were prepared to be interviewed at a later date about the service. The confidential interviews took place over the phone in the early part of the evening, and the respondents were asked for permission to record their interview.

A total of 116 gave their consent to be contacted and interviewed, 98 were interviewed and 95 agreed for the call to be recorded.[7]

[7] The researchers were unable to interview 18 users: 7 unable to make contact, 6 no phone number, 4 wrong numbers, 1 could not remember using the service

The four topic areas covered in the interview were:

- Their experience of the Project and their reactions/opinions about the service
- Whether they had found the Project helpful
- Whether they felt the service could be improved and, if so, in what way
- Whether they would recommend the Project to others

The interviews were carried out in two waves, the first before February 2001 and the advent of FMD, while the second had to be undertaken during the epidemic. With the latter, it was decided that the interview format would not be changed, but the interviewer would make reference in her introductory remarks to the foot and mouth crisis in agriculture in the area, and its effect on the Project. The opportunity would be taken to remind respondents that the Project was still available for telephone support while the auctions were closed, and that new venues were being tried and certain other events were still being attended. To assist with this, the interviewer was also equipped with names and numbers of organisations offering help with specific problems during FMD.

The interview questions were open-ended to allow users to talk through their experience of the project. Many respondents expanded on this to talk about their dealings with the NHS, problems in farming, FMD, MAFF (now DEFRA) and its literature, at some length. Others gave very precise and short responses. Telephone interviewing is different from face to face interviewing and at first some respondents were wary, but the researchers found that as soon as the respondent realised the call related to the Farmers Health Project, their tone changed and there was much greater willingness to talk[8]. This respondent's first reactions to the service had been very sceptical:

> *"Yeah, I was very sceptical when it first started, I thought it was a waste of money, but it has been a great success …if you want my opinion of it I think it has been a wonderful success and I hope they get funding for another 2 years."*

The views of service users

All 98 service users reported finding the scheme helpful. Typical comments were: *"found it grand, very helpful", "excellent service, non intrusive"*. Eighty-six users of the service could not think of any suggestions to improve the service**.**

There were 16 suggestions for improvement, among them two respondents wanting to see the provision for mental health problems increased:

> *"… the biggest thing with farmers at the moment is mental health, one of the highest suicide rates and in general farming is at very high risk and probably the area that you're doing at,… it's a lonely life out there and probably a lot of people are very very proud especially those 45, 50, 60 you know, with a debt, without even opening up not even to their families, you know, and this is*

[8] In the event telephone interviewing proved to be ideal as farmers were effectively trapped on their farms by FMD.

what leads to all the suicides, so perhaps you could emphasise or perhaps have a look at the mental health side of things"

Others made suggestions about increasing the length of stay at the auction marts; improving the positioning of and facilities in the Project van; the need for more advertising; and also some difficulties created by siting the van in a public place. Suggestions such as:

> *" …site caravan at agricultural stores", "…..advertise a bit more, quite a few farmers don't know enough about it and are reluctant to make enquiries".*

92 users felt that they would recommend the service, with the often-repeated comment: *"O yes definitely, definitely, I already have"*. Six users felt that this was not something they would like to "*….make a fuss about"*, and others said: *"…..if any one asked me, I'd say I was happy with it, wouldn't go around waving a flag but if anyone asked my opinion I'd give a very positive one."*

Many made comparisons between visiting the nurse practitioner in the van and the difficulty they had in both attending and making appointments with their doctor:

> *"You didn't have to wait two or three weeks to see her, something wrong, you see her there and then while you're still at work, not like at the doctor's, it was great for me".*

Many also commented on the time it took preparing to go to see their doctor and how easy it was to put off visiting the doctor, whereas visiting the van involved none of the pressures that discouraged the visit to the surgery:

> *"…the fact you didn't have to get changed to go to the doctor's, it was just there, that was absolutely great particularly for men as well because when they're farming they make appointments with the doctors for tomorrow and then you have a cow calving and you have to get changed, so you end up not going".*

The advantages of having workplace access to health services were appreciated and commented on by more than 50% of those interviewed:

> *"…something that wasn't quite right and had it treated and now working hopefully, I don't think I would have gone to the doctor's straight away, but because it was there I used it. I would have muddled on."*

Significantly, one person who had contracted a zoonotic disease (after the outbreak of FMD) believed that:

> *"I wouldn't have ended spending over a week in the health farm* (hospital) *if the auctions had still been on, I'd have had it looked at* (in the van) *sooner and had it treated".*

Respondents also highlighted the FHP van as an important source of information on health and work related issues that could be accessed easily:

> *"We find it helpful though we're young and not much wrong with us, it's an informal setting in a nice atmosphere so it's good to pop in and ask questions which you probably wouldn't have gone to a GP and asked".*

And importantly such information was there to be shared:

> *"…it gave me lots more information that I couldn't get from anywhere else. Saw them at the auction, they were very helpful, I've been ill, they never really knew what it was … pesticide poisoning. They were very helpful, found information for me and my doctor, leaflets and lots of information".*

Users felt it was important that they felt at ease: *"…lady was so nice, made you feel so at ease",* and: *"Ideal woman for the job."* The fact that both nurses and support workers had background in and current links with the farming and rural life was considered to be very important by a significant number of users:

> *"Yes she was good to talk to. She talked my language. She seemed to understand farmers… She knew what we were about, put it that way, she talked my language",* and: *"…one of us, understands".*

Taking the first step to visit to the van at the auction mart seemed to be a difficulty some users had: *"….after a week or two I called in, it took me a week or two I finally did go"* and: *"…..it took quite a bit to pluck up courage to go and see Dee you know."* But as its presence became more established, farmers were becoming familiar with the service. The absence of the nurse and van (due to holiday) was noted with concern by one user. Several respondents commented that the auctions were not as busy as they used to be (just before FMD outbreak) and expressed concern over the future of farming and its communities, and whether the auctions could survive (after FMD).

Summary

- Every respondent stated that the Project was useful, and 92 (94%) said they would recommend others to use it.
- 50 respondents (51%) commented on the ease of access to the NP and the benefits of a work place health service, compared to conventional primary care services such as general practices.
- 26 respondents (27%) commented on the high quality of the staff running the Service, and 24% on the quality and relevance of the information given and its ease of understanding.
- 19% of the respondents remarked on the importance of the NP having a good working relationship with the GP.
- 18% had found great difficulty in taking the first step into the van to see the NP, but had no regrets once they had done so.

Dissemination

This has taken place in two ways –

- Ongoing local service feedback about the Project
- Presenting findings beyond the study area, a process which is continuous in action research

The **Project Team** was heavily involved in the first by the very nature of their work, attending auction marts, shows, discussion groups in the farming community, PCG meetings, primary care team and Trust meetings, and in responding to requests from press, radio and TV.

The **Management Group**, (which included the Project Team), also responded to requests to make presentations about the Project organisation and its emerging findings through PGEA meetings and study days, by attending conferences and following up contacts, by writing articles for the medical and other press, and by giving presentations to funding and other interested bodies.

A Project website was devised by the support worker Denis Millar. This is partly to act as a dissemination tool and partly to continue the Project's innovatory role in the delivery of healthcare. In this way www.farm-ruralhealth.org.uk *(see Fig 9)* contains basic information about the Project and includes the text about farm related diseases written by the team members. It also contains useful links and background reading for those with a developing interest in rural health.

A 30-minute film about setting up the Project was made by a professional television unit and funded separately by the Countryside Agency, which wanted to help disseminate the lessons learned to a national audience. **'Taking Action in Rural Health: the case of farmers'** has been very well received by its viewers. It has greatly assisted in dealing with the huge demand on all members of the Management Group for further information about the Project. The Agency has also funded a part-time researcher (Margaret Stelfox), based at Lancaster University, to assist with this dissemination.

FINDINGS AND DISCUSSION (2)

The Project's action research framework was chosen to allow the flexibility for changes to be made in response to feedback from the experiences gained by the Project Team. It was very important to all those involved in the Project from its conception that it should provide *practical* experience in addressing the serious health problems of the farming communities it served; and further, should make a start at alleviating some of the burdens both of poor health and of social problems experienced by this group. This section, by looking at the Project's original seven

aims and seeing how far they have been answered, attempts to assess how much was achieved through the action research framework.

Aims of the Project

- ***To gain an understanding of the particular health needs of the farming population of the Morecambe Bay Health Authority area.***

This was addressed not only by talking to great numbers of farmers and people in the wider agricultural community, but also by gleaning insights into why conventional/mainstream services were not being used. Opportunities for these contacts and experiences occurred throughout the life of the Project, with the most detailed pictures coming from running clinics in the Project van at the auction marts.

The data collected by the Project Team document the health needs in terms of the **clinical conditions** encountered. These have already been discussed and include significantly large groups affected by mental health problems, cardiovascular disease and musculo-skeletal conditions: notably the extent to which **mental health problems** were disclosed by people who traditionally have difficulty articulating them. The Project also revealed the number of symptoms caused by **pesticide poisoning**, a notoriously difficult diagnostic area.

The vulnerability of farmworkers to **accidents** is already well documented, for example through HSE statistics, but the Project's Farm Accident Survey carried out during 1999/2000 showed this continues to be a source of significant morbidity and hardship, if not tragedy. *(See Appendix 1)*

Also documented through the Project's work were the reasons why farmers had been perceived as under-using conventional services, and this has been described both through the clinic data and in the replies received to the telephone evaluation.

- ***To address the problem of exclusion of many farmers from mainstream health care.***

Exclusion in this context has been shown to be multi-faceted. The great number of self-referrals indicates that both trust and physical location are important. By the nature of their work and their stoical attitudes to health problems, some farmers exclude themselves. For others, knowing that the provider of care was part of their culture was hugely important to taking the first step – there was a built-in empathy and rapport and importantly an expertise of the complex nature of risk in farming life.

Providing a health service on their doorstep was therefore only part of the answer to exclusion. It needed in addition the agricultural knowledge of the Project workers, and the time taken in building up trust, for this service to start being used. Where necessary, patients were led back into mainstream health care through referrals to primary or secondary care, but the large number of those who returned to the project

for a follow-up consultation indicates that traditional patterns of primary care were not seen as accessible. *(See Fig. 7)*

The Project provided **patient advocacy**, in that a number of patients came back after hospital appointments or in-patient stays to discuss their treatment/prescriptions and progress. In one case this resulted in early re-admission and intervention in what could have been a serious health problem *(Case study 1)*. The NP also saw patients before specialist appointments and helped them get the most from these appointments.

- ***To examine whether creating new pathways of health care can address inequalities in rural health care.***

The provision of a mobile 'drop-in' clinic was intended to act both as a 'one-stop' service in itself and as the gateway to existing pathways within the mainstream service. For it to be effective, this provision had to be well signposted in many ways, including availability on the telephone; attendance at agricultural events; health articles in farming magazines; interviews in local (and sometimes national) press, radio and TV; talks and presentations at farmers' discussion groups, WIs Young Farmers; and leaving leaflets on auction mart cafeteria tables. All these had some effect, and complemented the actual presence of the Project within the farming community. The intention was to make absolutely clear what the Project was there for, and to underline that it was a new form of access to health care.

The inequalities in rural health care were perceived as being the unmet needs of the farming community and their difficulties of access to existing health services. The extent to which these were addressed by the Project has been explored in the summary of clinic work findings (above), which leave little doubt about the effectiveness of the approach used. Cultural barriers, such as those that resulted from stoicism or from giving a low priority to health problems, were broken down by providing easy access to a service delivered by health workers who had 'street credibility' in the farming community, as well as the clinical and social expertise needed to solve the problems that presented.

- ***To explore the interface of primary and secondary care in rural settings.***

This was a very important aspect of the Project's work, and one in which it was difficult to make uniform – and sometimes even significant – progress. Initially, a great deal of time and effort was spent in introducing **Primary Health Care Teams** (PHCTs) to the work of the Project: which was explained through mailings to every general practice, through PGEA meetings, and through some individual visits. Some GPs told the Team they did not want to receive referral letters from the Project, so forms were designed giving clear details of a patient's presentation and treatment - to aid communication between the Project Team and PHCTs. Despite this, there were more referrals over the two years from the NFU than from local GPs, and communication with PHCTs was largely one-way, ie from the Project.

Later, an offer was made to 8 practices for the Nurse Practitioner to carry out assessments on those rural patients who had not been seen in the practice for more

than 3 years. One practice responded that this might fragment the service and confuse the patients, while another was concerned about uncovering a lot of problems which it didn't have the resources to deal with.[9] These attitudes are in contrast to that of most of the patients interviewed who were more than happy to access the Farmers' Health Service so long as their GPs were notified.

Generally, among PHCTs the Project was well received, though passively. It is known that general practices have their own cultures, and some were more prepared than others to provide feedback to the Nurse Practitioner, who often had to contact the patients or their families to find out the outcome of a referral. This probably reflects the pressures and difficulties that GPs are under, and the feeling of some that the Project was identifying patient needs without the resources being available to address them.

At the beginning of the Project, it was not at all clear what sort of relationship those who worked for it would have with the primary care teams across the area it covered. There were, after all, 70 or 80 general practices within this area, and for many of them the problem of farmers' access to healthcare was at best peripheral. By the end of the Project, it was possible to show that the work done could be firmly rooted in mainstream primary health care, and complemented that offered by general practices in farming communities – indeed, in some cases added value to it.

It was also possible to say that there were strong links to **community** services, built up through the establishment of the clinic bases in Carnforth and Grange, and also in the **health promotion** and **occupational health** fields. Referral to hospital departments was usually negotiated in general practice, though in a few appropriate individual cases, the Nurse Practitioner had direct access to **secondary** care; and was able to establish dialogues with those in secondary care and **academic medicine** in specialist fields such as pesticide poisoning.

- ***To explore opportunities for joint working/collaboration between physical and mental health services, and between health/social/welfare agencies in a rural setting.***

Joint working between physical and mental health services was extremely successful. Relationships were excellent, with the CPNs referring to the NP where patients needed care from someone with a greater understanding of farming culture: for example, where the CPN thought that giving up farming might be the answer to the problem, the NP could pinpoint ways of reducing the stress caused by that occupation. Alternatively, the NP would refer to the CPN for an expert opinion or advice about a change of medication.
The Project deliberately engaged the help of a CPN who was experienced and knowledgeable about rural and agricultural issues, who provided clinical supervision for the NP, and with whom joint planning and presentations were made on several projects to inform rural communities about mental health issues.[10]

[9] The other 6 practices did not reply.
[10] This relationship has resulted in a separate bid being devised for development of rural CPN services.

Collaboration between health/social/welfare agencies was extensive. The Nurse Practitioner was a trained and experienced clinician, and working outside traditional definitions of 'health' represented a steep learning curve. Such working created a valuable resource and outcome of the Project – the ability to provide an holistic approach to solving the complex problems that farmers presented with, problems in which health, social and welfare factors are intertwined.

Partnerships with over 60 agencies were forged early on in the Project. This was very time consuming, but experience soon showed which were the useful agencies for close working and which could be linked more loosely by, for example, the exchange of the minutes of meetings.

The Support Worker role was invaluable in helping establish these partnerships, since it would not have been possible for the nurses to undertake this amount of liaison. Here again, the importance of intimate knowledge of farming networks and culture cannot be overemphasised. Huge economies in time management were made in this way, and close knowledge of current issues meant that the SW could represent the Project at partnership meetings, farmers' meetings and a range of events where a presence was important and which enabled the NP to be more available to see patients. **This represents expertise beyond that normally expected of Primary Care Support Workers**. (*See Recommendations*) Forging these partnerships was beneficial to patients throughout the Project, but never more so than when FMD struck. The Project Team could then no longer visit agricultural venues, but because of this groundwork and its problem solving approach, it was ideally placed when the crisis occurred.

- ***To examine any emerging differences in practice between two different rural locations.***

In its meetings in 1998/9, the earlier working party drew on the experiences of health, agency and charity workers in South Lakeland and North Lancashire. Funding was sought for the Project to employ two Nurse Practitioners, one for each of these two areas and providing a similar service. At that time. it was felt that it would be valuable to examine any differences that emerged between the two areas, for example in the willingness to use the service or in attitudes towards access to health care.

However, as only one Nurse Practitioner could be appointed (to work in North Lancashire), the requirements asked of the Project Nurse appointed for South Lakeland proved quite unrealistic: doing a day release for the nurse practitioner modules at St Martin's College, and half a day supervising her support worker's NVQ training, put great constraints on her availability for the Project's work and added greatly to its burden. It was some months before this was recognised and action was taken to correct it.

By that time, some differences between the two areas certainly had emerged, and in particular the uptake of the service in South Lakeland was noticeably lower than in North Lancashire (*see Factors affecting Data Collection, above*). After changes were made (in June 2000), there was greater clarity about the differing skills and roles of the NP and Project Nurse; and while the former took over the clinical work, the latter explored and developed the Health Promotion opportunities that the Project's way of working allowed. However, there was insufficient time, especially with the advent of

FMD, for valid investigation of any differences between the farming communities of South Lakeland and North Lancashire. Lessons were nevertheless learnt, and the most important was the need to have understanding of and sensitivity towards *each* community and to have flexibility built into the service provided.

- ***To evaluate the development of the Nurse Practitioner role in rural settings.***

The complexities of nursing qualifications are notorious, and the NP qualification is relatively new in the UK and still often misunderstood by other workers in the NHS – let alone those outside it. NP training became available for experienced nurses in Cumbria/Lancashire in the early 1990's, with the first cohort qualifying in 1995 having done a degree-level course that equipped them to manage newly presenting, undifferentiated clinical problems (and included a knowledge and understanding of the therapeutics involved).

In the planning stage of the Project, it was realised that NPs would be particularly suitable for the task envisaged, as they would have the skills to recognise and take action on the wide spectrum of conditions likely to present from the unmet needs in the farming community. Clearly, with no known precedent for this, and with the relative novelty of the NP qualification, it would be an opportunity to evaluate the NP role in such a setting.

Valuable experience has certainly been gained, with the NP role developing in many ways. **Decision-making** took on increased importance, as in solitary rural locations there is seldom the opportunity for a second opinion from a colleague, or the choice to come back in a few days and 'see how you are'. Just as the GP traditionally has been **the patient's advocate**, so the NP could take on this role for the marginalized community being reached: indeed, the analogy with general practice extends to the **holistic care** that ideally it provides. And it goes beyond that in the way the NP was able to follow up referrals, and act as **co-ordinator** of the networks that helped resolve the more complex problems that presented.

Contact with farmers' problems led to the **development of expertise** in certain areas. For example, there was a huge amount to be learned about the physical and psychological effects of organophosphate poisoning, and the treatment of its symptoms. The diagnosis and management of this condition is a very specialist subject and not easy within the context of general practice, and the NP was able not only to acquire considerable knowledge and expertise but also to educate fellow professionals and give advice about referral when necessary.

Another development for the NP was dealing with the **media**, not an area that health professionals normally have any training in. This became significant because of the high profile the Farmers' Health Project received, and involved frequent interviews with local and national radio and press, television and magazines, and being filmed for two videos that drew on the experience of working on the Farmers' Health Project.

The Project's large Steering Group, made up of sponsors and interested parties, all with distinct priorities, meant there was a danger of the Project Team being stretched in too many directions, particularly in the early days before the participants had come

to understand each others' interests and expectations. Even within the Management Group, there were at first misconceptions about what a NP was able to do, and it was therefore part of the NP's role to be diplomatic and focussed in approaching the work, and to act as a guide in implementing the Project's aims.

A difficulty that occurred in the first few months of the Project was in enabling the NP to **prescribe**. Despite writing a protocol in line with Trust policy, and producing a very limited list of drugs for use in the circumstances of the Farmers' Health Project, NP prescribing was not approved because it remained illegal under The Medicines Act 1968. As the NP would be working across 4 health authority boundaries and with a very large number of GP surgeries, there was no practical way in which existing prescribing skills could be used; so she had to manage with giving best possible advice for 'over the counter ' medicines. However, **the value of providing an outreach service is undermined when the patient has to travel the same distance in the opposite direction to collect medication.** *(See Recommendations)*

A few GPs to whom the NP was well known were still happy to leave a prescription on the basis of the clinical story, but most insisted on seeing the patient – with the NP usually arranging an appointment. Some patients were impressed by this as they were not used to having an appointment at such short notice; which is another way of saying that **people who are not used to using the NHS do not know *how* to use it**, and part of the NP's function was to help them learn to do this.

Project Outcomes

Outcomes are a feature of action research, whereas 'Results' are a feature of traditional research. 'Outcomes' is here defined broadly as the **effect of the project** or that which was **created by the project**. The outcomes listed below have been agreed by the project team and the applicants:

- Establishment of trust and rapport with the farming community
- New pathways to healthcare created – accessibility improved
- Evidence base for unmet needs in mental health
- Evidence base for unmet needs in physical health
- Expertise in outreach working gained – provides a future training resource for the Trust
- Expertise in recognition and management of pesticide poisoning
- Development of the Nurse Practitioner role
- Development of the role of Primary Care Support Worker
- Establishment of problem solving routes for complex health/social conditions
- Established national profile and the ability to advise on similar schemes
- Research capability extended
- Media expertise
- Experience of balancing autonomy (isolation) and professional development/ networks
- A strong endorsement from Project users.

Conclusions

The Project's clinical findings established a base for the unmet needs of the farming community in both mental and physical health.

A mobile outreach clinic is an effective way of addressing the unmet health needs of an isolated community.

A service must be accessible culturally as well as geographically.

It must provide expertise, through comprehensive clinical skills and multi-agency support, delivered in a co-ordinated way convenient to the recipient.

Its place is in primary care because of a) its function as a 'gateway' and b) in providing access to continuing professional development for its staff.

Recommendations

The principle of outreach should be established in rural health provision, as recommended in Section 4 of the 2000 Rural White Paper. The increased central support for outreach working in rural areas promised in policy documents must be implemented to enable such schemes, when successful, to move from pilot projects into mainstream services.

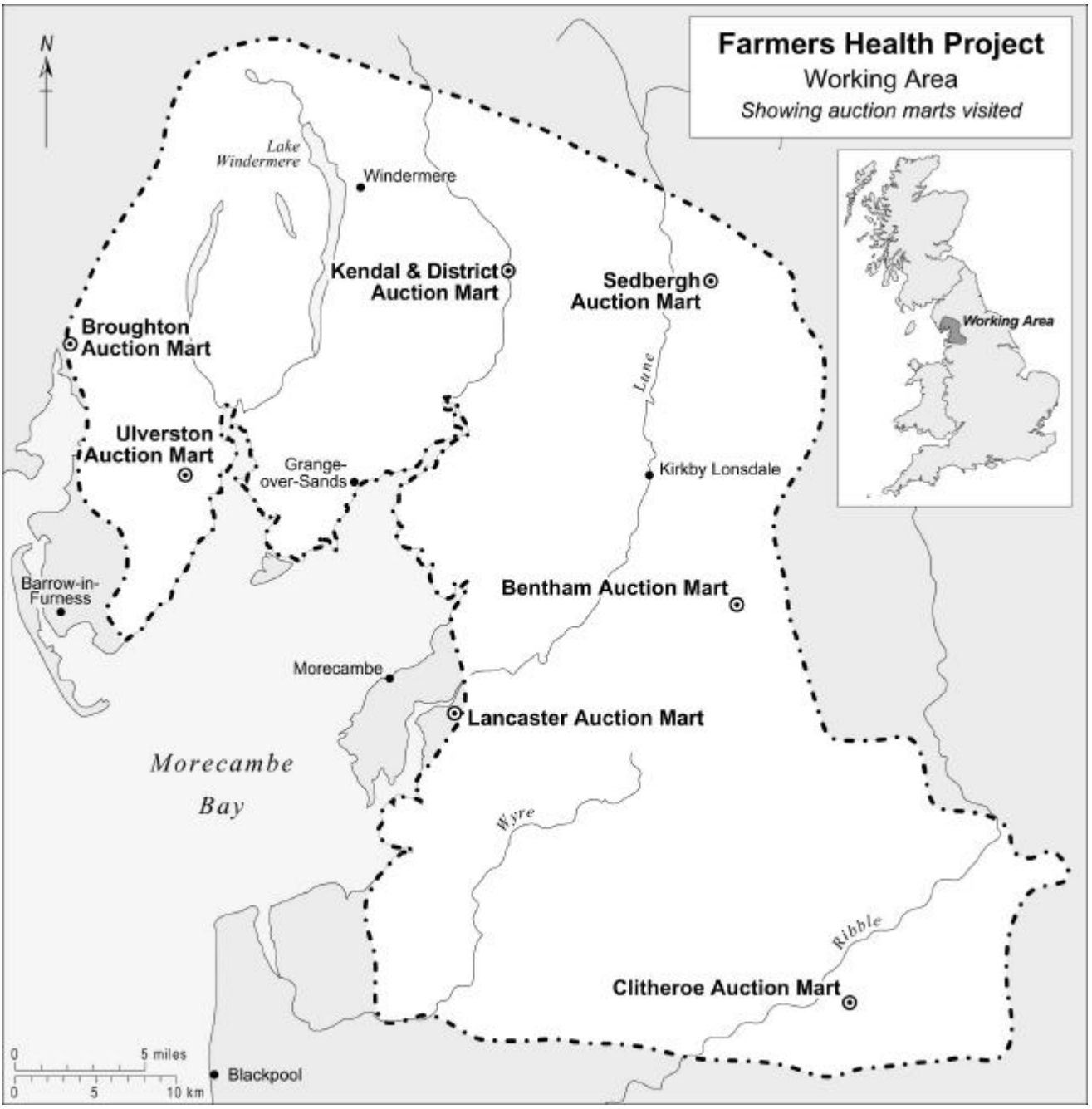
The role of the generalist in rural practice should be recognised as a nursing issue as well as a medical one. Nurse Practitioners have skills in identifying complex needs that include physical, mental and social problems, and rural health inequalities can be addressed by establishing NP led schemes.

Nurse prescribing is integral to an outreach health service for a marginalised community. Urgent attention should be given to the legal framework currently inhibiting practice and undermining the effectiveness of initiatives that seek to redress inequalities of health service provision.

The role of Primary Care Support Worker is currently under-developed. In the rural context, this role often demands a level of expertise well beyond the current definition and career progression of this new form of health worker, and there should be ways of recognising such expertise.

Mental health problems/needs in the farming community need addressing in ways which are more culturally acceptable. Often, especially in isolated rural areas, problems are not identified until too late, or until the symptoms are severe enough for the Mental Health Act to be invoked. Such situations, with all their destructive potential, can be prevented by providing easier access to mental health workers who are familiar with the culture and problems of such communities.

Figure 1 Map of area covered by Project



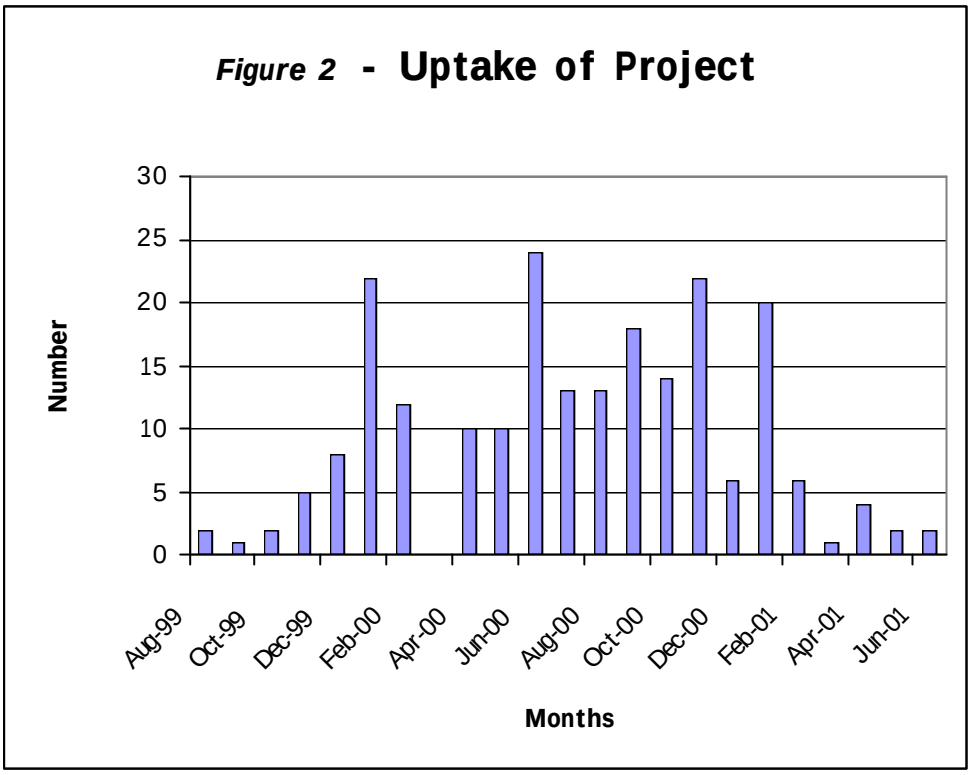
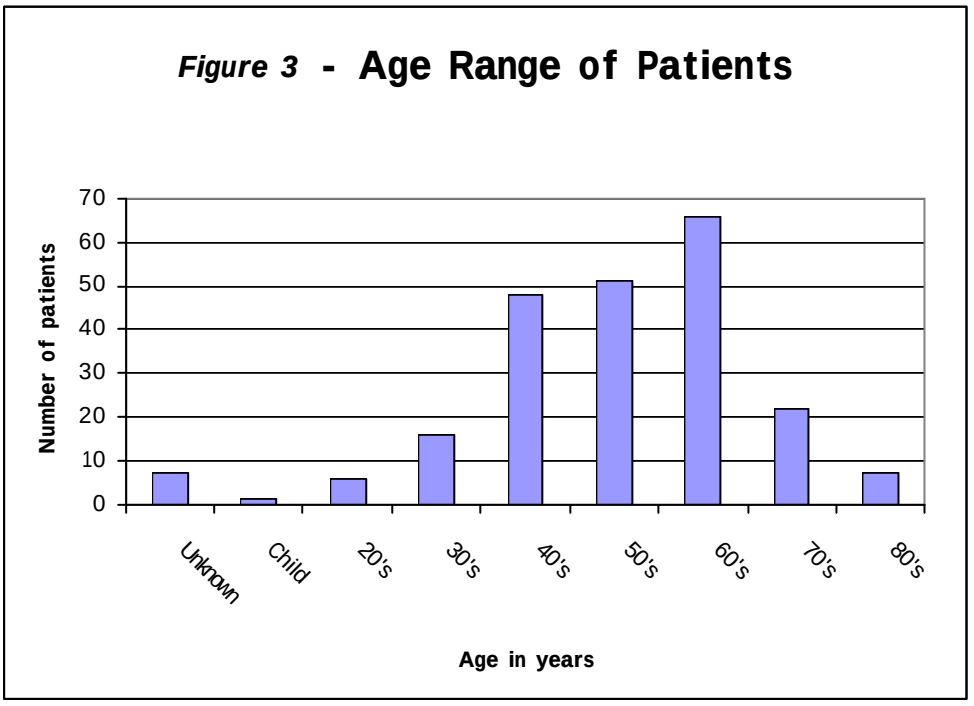


Figure 2 reflects the slow uptake in the first six months, the effect of a busy time of the farming year (March 2000), and the impact of the Foot and Mouth outbreak (February 2001).



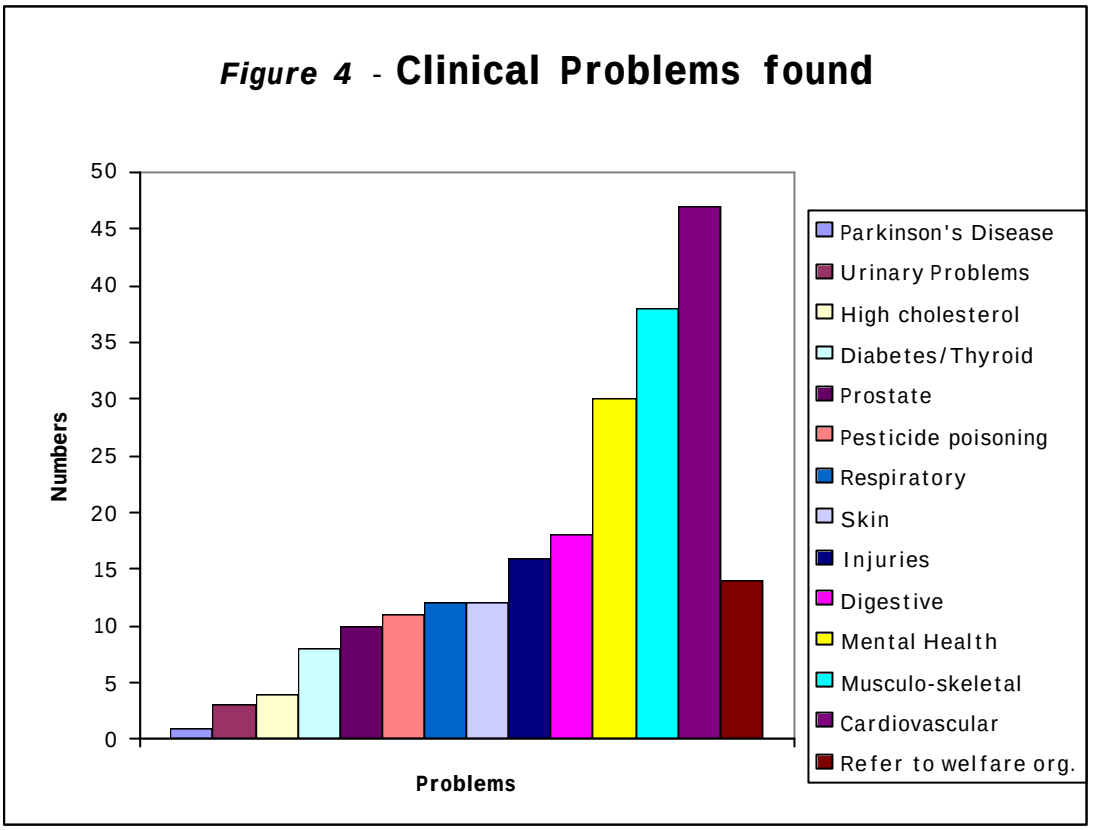


Figure 4 - Clinical Problems found
50
45
40
35
30
25
20
15
10
5
0
Numbers
Problems
Parkinson's Disease
Urinary Problems
High cholesterol
Diabetes/Thyroid
Prostate
Pesticide poisoning
Respiratory
Skin
Injuries
Digestive
Mental Health
Musculo-skeletal
Cardiovascular
Refer to welfare org.

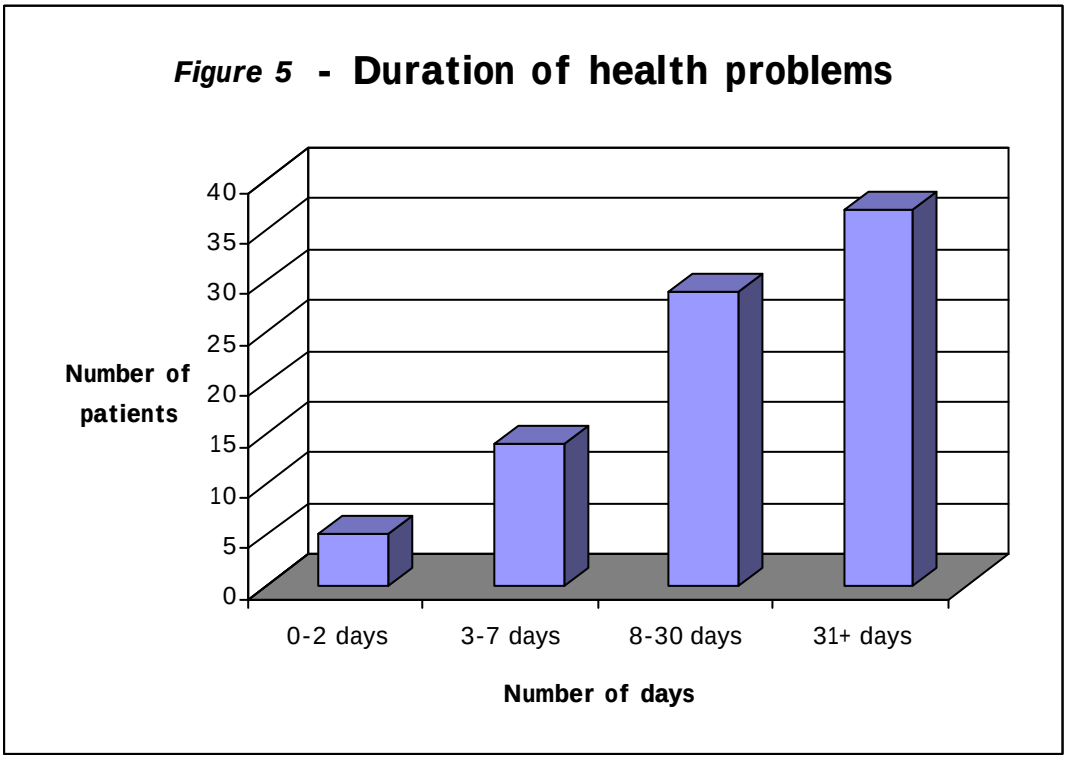


Figure 5 - Duration of health problems
40
35
30
25
20
15
10
5
0
Number of patients
0-2 days
3-7 days
8-30 days
31+ days
Number of days

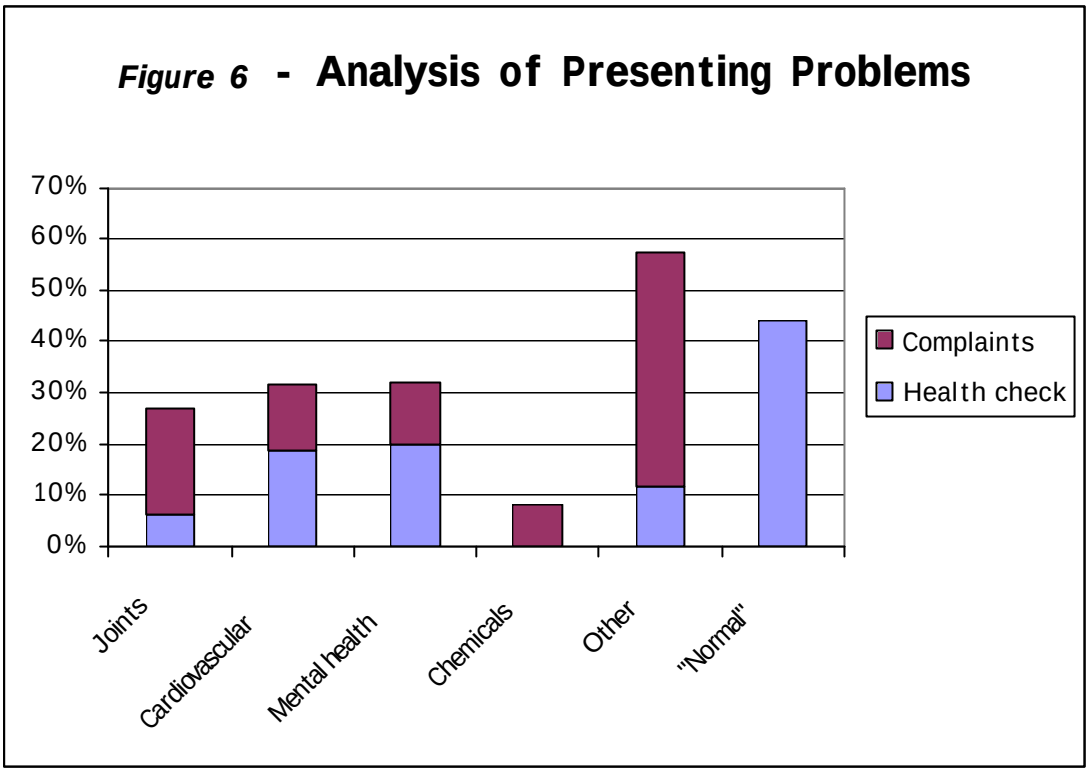


Figure 6 hints at the cultural attitudes to health: for example, how it is easier to complain of arthritis ('joints') than of a mental health problem; and how the latter could be the hidden agenda of a request for a health check.

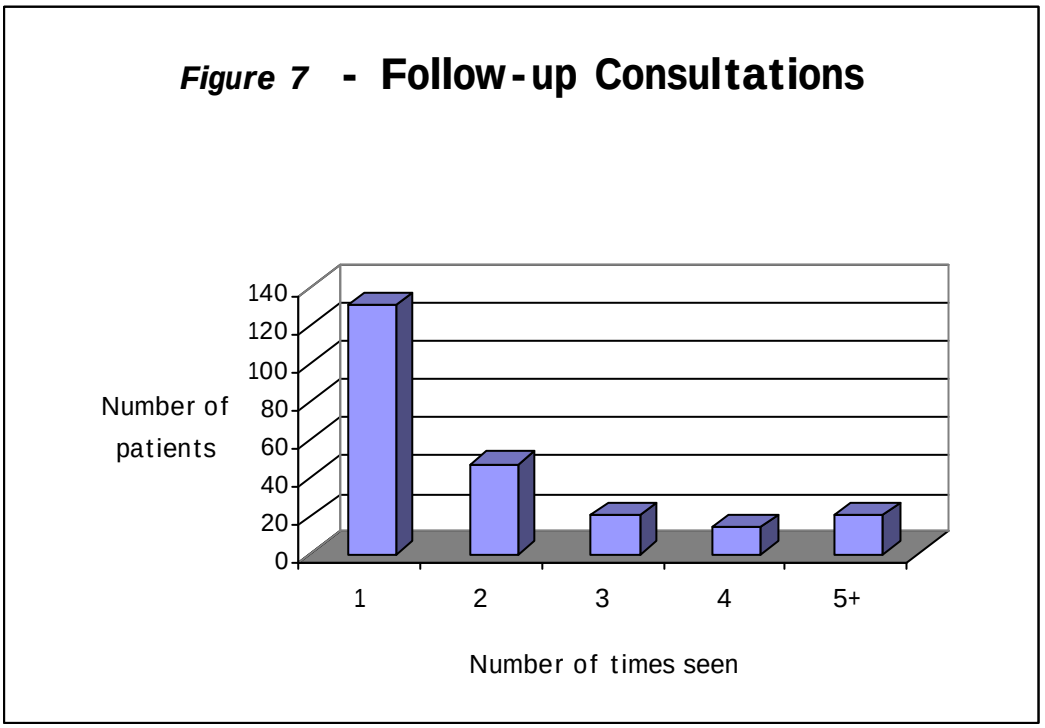
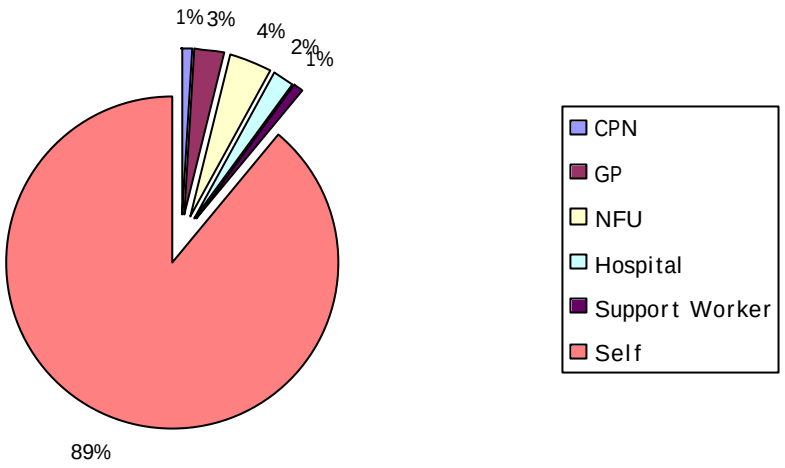


Figure 8 **- Source of Referrals**



The Rural and Farmers Health Service

ww.farm-ruralhealth.org.uk

The Farmers' Health Project

Information contained on this site is for both the 'Service' and research 'Project', which covers the area of North Lancashire and the South Lakeland section of Cumbria in England

Project Funding Links Events News Health tips Contact details

Bibliography

Agnew, T, (1999). Down on the Farm, Health Service Journal, 11 Nov 1999, 16.

Boulanger S/Institute of Rural Health (1999). Farm Suicide in Rural Wales. Report to the Welsh Office.

Burnett, T.M., (1994). Injuries on Farms: Observations in the Lune Valley 1981-1991. Morecambe Bay Medical Journal Vol. 2 No. 1.

Countryside Agency (2000). Not Seen, Not Heard? Social Exclusion in Rural Areas.

Countryside Agency (2000). The Rural Content of Health Improvement Plans, Partnership at Work.

Cox, J, (Ed) (1995). Rural General Practice in the United Kingdom, London RCGP Occasional Paper 71.

Davies, R. Ghouse, A. and Freer, T. (2000). "Chronic Exposure to organophosphates: background and clinical picture", *Advances in Psychiatric Treatment*, 16:3,187-191.

Dept of Health (March 1998). Our Healthier Nation, Green Paper, Cmnd 385; p66; p76-79.

Dept of Health, (1999). Reducing Health Inequalities: An Action Report.

Department of Health (1999). National Service Framework for Mental Health, London: Department of Health.

Dept of Environment, Transport and the Regions, (Nov 2000). Our Countryside: The Future. A Fair Deal for Rural England. White Paper.

Evans A. (1999). Farm Accidents in Rural Areas. Institute of Rural Health, Gregynog, Powys.

.*Farmers' Weekly* (10 April, 1998). Opinion: Time to halt trend to isolationism as more workers leave land.

Farmers' Weekly (13 October, 2000). Occupational health care hits the road.

Farmers' Weekly (6 April 2001). Feature article on the Farmers' Health Project.

Gerrard C (1998), Farmers' occupational health: cause for concern, cause for action. *Journal of Advanced Nursing,* 28 (1) 155-163.

Gerrard C, (1995) Farmers' Occupational Health: a case of policy set-aside? Unpublished PhD thesis, Lancaster University.

Gregoire, A. and Thornicroft, G. (1998) Rural Mental Health, Psychiatric Bulletin, 2, 273-7.

Hart E and Bond M (1995). Action Research for Health and Social Care: A Guide to Practice. OU Press.

Hawton K, et al (1998). Suicide and Stress in Farmers, report to DoH. HMSO.

HSE (2000), Fatal Injuries in Farming, Forestry and Horticulture – annual statistics.

HMSO (1992). Suicide Deaths in England and Wales 198201992: the contribution of occupation and geography. *Population Trends*, No 80.

Orr P.A. and Cumbria Practice Research Group (1994). Study of adverse reactions to Organophosphorus Sheep Dips.

Rural Development Commission (1998). Developing indicators of rural disadvantage: understanding the processes.

Simkin, S., Hawton, K., Fagg, J. and Malmberg, A. (1998). Stress in farmers: a survey of farmers in England and Wales, Occupational and Environmental Medicine, 55, 729-34.

Walsh M. (2000). Farm Accidents. Emergency Nurse, Vol. 8 No. 7.

Westmorland Gazette (Oct 23, 1998). Crisis in Farming is Blamed for Tragedy, p.1.

Working Group minutes, Lancaster University Rural Mental Health Working Group meeting, 16 April 1998.

Woods (1998), Implementing Advanced Practice: identifying the factors that facilitate and inhibit the process, *Journal of Advanced Nursing*, 7, 265-273.

APPENDIX 1 - FARM ACCIDENT SURVEY

Introduction

The impact of accidents on farms was one of the three areas of major concern about farming communities' health the Farmers' Health Project set out to investigate. Much is already known about the hazardous nature of farming, and the annual death toll between 1986 and 1998 averaged 56, including 4 children[1]. The annual incidence of *non-fatal*, serious injuries is less certain because of gross under-reporting, but has been estimated to be two or three times that of the average industrial worker and probably around 500 per 100,000 workers[2].

The Project's plan of investigation included the proposal to set up a monitoring system involving the Accident and Emergency Departments at Barrow, Kendal and Lancaster to record the incidence of farm accidents resulting in A & E attendance from the Project's areas. In addition, a case study approach to a sample of accidents was proposed, to examine the cause, the possible prevention, and what First Aid was used; and, if any, what its effect was on reducing the severity of injury. It was also hoped that follow-up into the social/economic impact of the accident on the family/farm would be possible, and that this would inform any accident prevention strategies.

In the event, this plan had to be modified – partly because the Bay Hospital Trust had difficulty providing the information needed, and partly because the proposals had unrealistic expectations of what the Project would be able to do in respect of collecting information, when it was not functioning in either of the two places where the victims of accidents were most likely to present – general practices and A & E Departments. The Farm Accident Survey that took place was thus curtailed in that it collected data through only five general practices in the Project's area and the A & E Department at Cumberland Infirmary, Carlisle; and it was carried out for 9 months only, from October 1999 to June 2000.

A full report has been published elsewhere[3], and what follows is a summary of the survey.

Methods

Following research into previous reports on farm accidents and in particular that of Evans[4], a questionnaire was designed for data collection from the recruited general practices and the A & E Department.
The general practices in the Project area were Ambleside, Bentham, Broughton-in-Furness, Dalton-in-Furness and Kirkby Lonsdale, and at each of these the practice nurse or nurse practitioner would complete the questionnaire after seeing and treating a farm accident. These questionnaires and those from the A & E Department were returned to the lead researcher every month for collection and analysis.

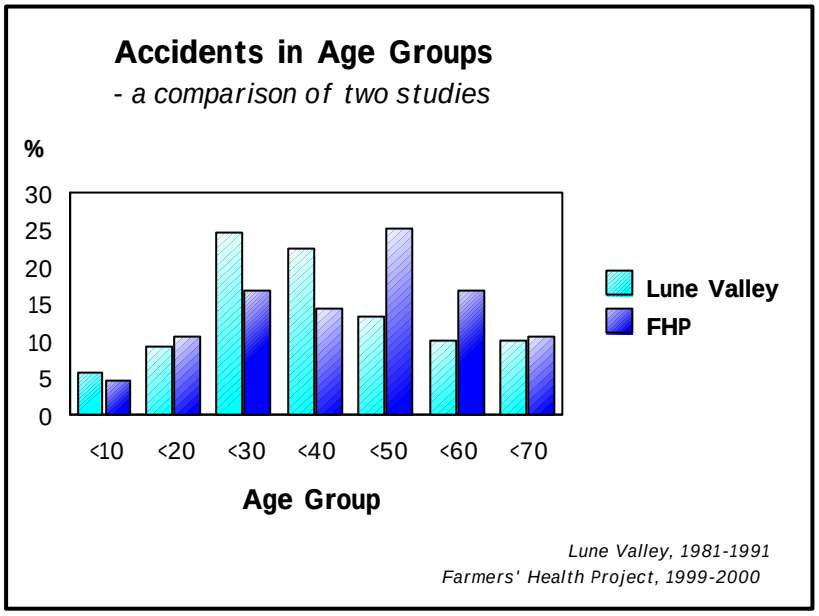
---

[1] HSE – *Fatal Injuries in Farming, Forestry and Horticulture, 2000.*
[2] Burnett T. – *Injuries on Farms, Lune Valley*, Morecambe Bay Medical Journal, 1994
[3] Walsh M. – *Farm Accidents*, Emergency Nurse, Vol. 8 No. 7, Nov. 2000
[4] Evans A. – *Farm Accidents in Rural Areas*, Institute of Rural Health, Gregynog, Powys

Results and Discussion

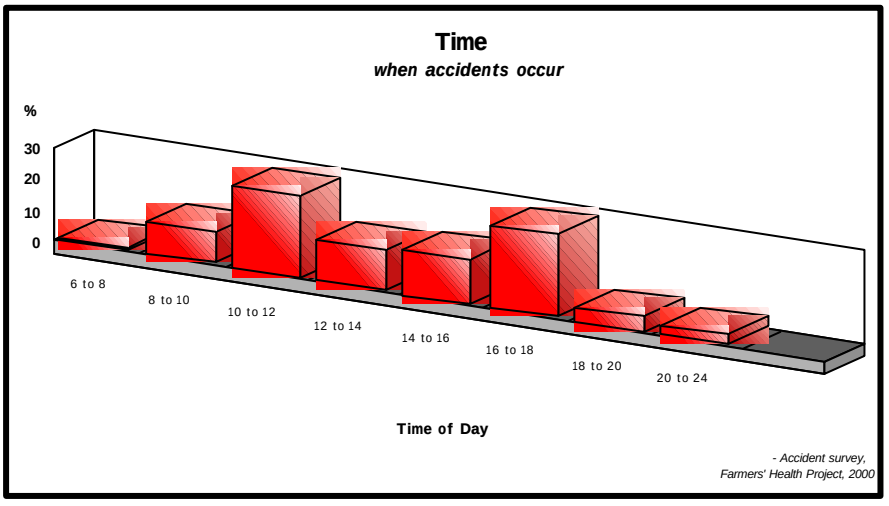
In the 9 months of the survey, the details on 90 incidents resulting in injury were collected.
The **age range** fitted in with previous observations that those who are most active are the most vulnerable. It confirmed that the farm workforce is getting older (*Chart 1* illustrates this), with more than 60% of the injured being over 40 years of age; but there is still cause for concern that 15% were under the age of 20.

Chart 1



The **occupation** of those injured was mostly self-employed, which is the expected pattern for farming in the areas concerned.
The records of the **time of day** when accidents occurred (*Chart 2*) showed clear peaks in the late morning and again in the late afternoon, underlining that fatigue and/or hunger – or trying to complete a task by a deadline – increase vulnerability.

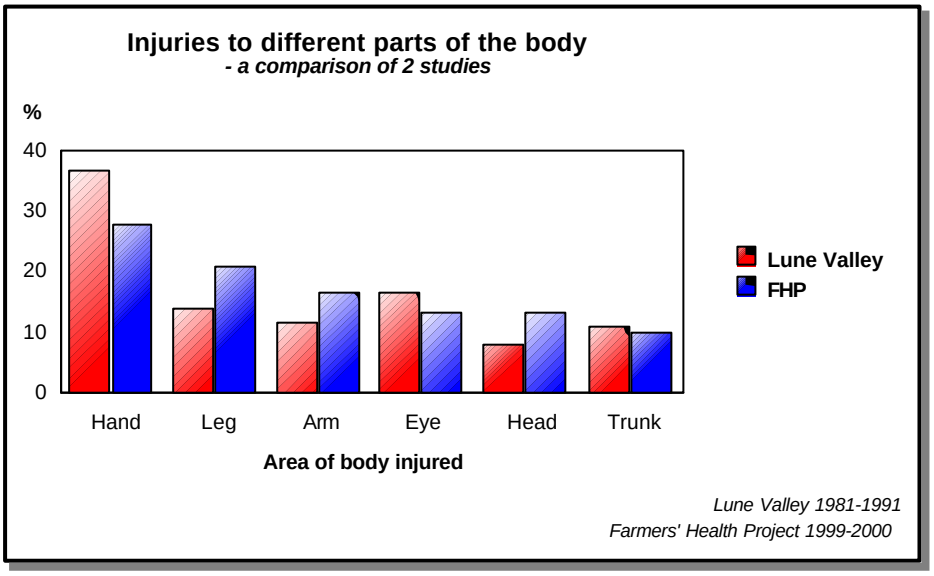
Chart 2



The **nature of an accident** was clearly associated with the **activity** being undertaken at the time. Thus, working at heights led to falls; using tractors or other machinery resulted in injuries from projectiles or foreign bodies, if not worse; being amongst livestock produced its quota of kicks, knocks and bites; and moving objects around, or 'odd-jobbing', led to crush injuries and lacerations. In the 90 cases, there were roughly equal proportions between these four types of accident, with only a handful of cases in other categories such as a chemical burn, or a lifting injury.

The **types of injury** were predominantly musculoskeletal trauma (45%), lacerations (24%) and soft tissue injury (17%). The **area of the body affected** repeated the patterns seen in previous studies[5] (*Chart* 3), hands and eyes being particularly vulnerable and involved in 40% of the injuries seen.

Chart 3



The variety of **equipment involved** was wide-ranging, from tractors and quad-bikes (ATVs) to chain saws, grinders, cattle crushes, trailers and any number of specialised machines. However, it is often over-familiarity with a machine, rather than the converse, that leads to an accident, and this factor also finds expression in the **place of accident.** Here, the survey found that 69% of accidents occurred on the victim's own farm, and it was the areas most familiar to the farmer – the farm buildings and farmyard – where most (61%) of these accidents happened. Those that took place on someone else's farm (24%) included 22 victims who were aged 15 to 38, and only 7 who were in the older age groups. Though this is a significant difference and might suggest that younger people are more careless in unfamiliar places, the likely explanation is that most of the contract work is done by young farmers; and, according to the principle already established, if they are the ones who are going most often to other people's farms, they will be the most vulnerable.

[5] especially Burnett T. – *Ibid.*

A record was kept of the **animals involved** in accidents, and cattle accounted for 74% of these (with sheep 22% and pigs 4%). There were 29 cases in this category, and the average age was significantly older than that of the other categories. This repeats an observation previously made[6] that older farmers lose their agility and are therefore more at risk when they are working with livestock. In a hill-farming area where there are fewer young people in the workforce, more such accidents can be expected unless suitable prevention strategies can be devised.

A question on **prevention** was included in the questionnaire used. Patients were asked if the accident could have been prevented and if so, how? The responses showed that 75% admitted that by taking more care, using protective clothing or following correct procedures better, the accidents would not have happened, but the older ones were more ready than the younger to admit this. There was also a question on the **First Aid** measures taken, which revealed an alarming failure in 66% of the cases to do anything at all.

Summary

The Farm Accident Survey has built on previous studies to show in greater detail what is happening locally in the Project area, and its findings could be used to develop a farm accident prevention strategy for this area. In particular, it has highlighted the following key facts –

- **High risk people –** the self-employed, older men working with livestock, younger men doing contract work on other people's farms, children.
- **High risk places –** those that are most familiar and the most intensively used, the farmyard and the farm buildings.
- **High risk times –** late morning and late afternoon, towards the end of any long shift, or when working to a deadline.
- **High risk activities –** working at heights or with moving objects, tractors and cattle; any activity needing appropriate protective clothing.

The majority of the accidents seen could have been prevented by taking more care, or correctly using protective clothing. Once an accident had happened, the First Aid response was likely to have been inadequate, so any accident prevention strategy should include vigorous First Aid teaching aimed particularly at younger groups such as the Young Farmers' Clubs.

[6] Burnett T. - *Ibid*

APPENDIX 2 - REVIEW OF INQUESTS

Introduction

Most recent discussions of rural health (including e.g. Rural White Paper) mention the elevated rate of suicide amongst farmers. As Hawton et al (1998) explained, there is very little data available about this. Occupational studies of suicide are not routinely carried out by the Office of National Statistics (ONS) and the most recent census data of 1991 is now unreliable as a guide since there have been three different crises in farming since it was carried out.

Our aim was to try to understand the circumstances of sudden death amongst farmers, farm workers and their families in our study area. Findings of suicide were clearly only part of the picture, so we looked at all farm related deaths and how these related to the Project's broader aim to understand the health needs of this group. Therefore accident circumstances, chronic or acute illness and levels of contact with health practitioners were of interest.

Hawton and others have repeatedly cautioned against over reliance on the ONS figures, since these are known to be conservative. We felt that if we could gain access to the actual records we would build up a much clearer picture about farm related deaths. When we began this work, it was soon realised for example, that many agricultural workers could be 'missed' by the ONS meta-data which itself relies on information taken from death certificates. Many death certificates record simply 'Retired', under occupation, requiring the researcher to search further to establish details relevant to occupational health.

We are most grateful to the local coroners, Mr George Howson (Lancaster and District), Mr Ian Smith (Furness) and Mr Cyril Prickett (South Lakeland), for their generous co-operation in the course of this study. Time constraints have limited the scope of what we could do and we are convinced that further study would have added much to what we present here. We have a complete dataset for the years 1998 and 1999 from the three districts, but given the FMD crisis in particular, it would clearly be more valuable to have gathered the set for 2000, and for 2001 when the records become available. Time and resources have prevented us from continuing this work.

The review was undertaken under supervision and a strict undertaking of confidentiality, although it is recognised that proceedings had been completed and certain information was in the public domain. We do not propose to detail the cases we examined and the discussion below represents our anonymised analysis.

Discussion

There were a total of 31 farm-related deaths extracted from the coroners' records from the three districts surveyed for the two years 1998 and 1999, of which 23 were men and 5 were women.

We looked for examples of whether the deceased had been in contact with health/social care agencies in the preceding months and what occupational factors were deemed relevant to the inquest: in particular, with accidental death what were

the immediate circumstances/risks, and in the findings of suicide what were the background factors?

Recorded findings were:

Open Verdict	1
Misadventure	2
Accidental Death	3
Suicide	9
Natural Causes	16

Natural Causes: Health issues noted were: arthritis, rheumatism, hip replacements, cancer, heart disease (x 8), gout, alcoholic liver disease, asthma/farmer's lung. In one case there was no GP registered. As these deaths were sudden, little contact with primary care health services was noted.

Suicide: Issues identified as relevant to the inquest included loneliness, lack of relationships, problems with relationships, 'flu like symptoms, debt, previous injury, alcohol abuse, access to firearms, depression, serious mental illness.

NB - two further cases (one of Open Verdict, and one of Misadventure) reported characteristics of suicide.

Accidental Death: road accident near the farm; road traffic accident in rural location; multiple injuries trapped under a tractor;

Misadventure: drowning (low spirits and ill health noted); poisoning;

Open Verdict: gunshot wound (ill health noted)

We are aware that caution is needed when attempting to analyse these and any other records held by coroners:

a) Some deaths may be attributed to the previous or following years, depending on the time taken to hold the inquest – for this reason a more longitudinal study, e.g. 5 years, would be preferable.
b) Coroners may be understandably reluctant to pass a verdict of suicide and researchers have for many years believed the numbers recorded to be on the conservative side. Some believe that Open Verdicts should be included in studies which seek to understand suicide (Hawton et al 98).
c) Location is ambiguous – e.g. it is well known that people travel to beauty spots to take their lives.
d) Boundaries are historically based and not necessarily coterminous with e.g. local authority boundaries.

Need for further study

To resolve some of these problems, we feel that a longitudinal study would be valuable. When seeking to understand farm related deaths in the catchment area of the

Farmers' Health Project, it would also be important to take in neighbouring parts of North Yorkshire and North Cumbria to get a more realistic picture of this community. The impact of the recession in agriculture and more recently the FMD disaster points to the need for at least a follow-up trawl of the years 2000 and 2001. Ideally this should be done in March 2002 so as to encompass the 2001 records.

APPENDIX 3 - PARTICIPANTS IN THE FARMERS' HEALTH PROJECT

During the 2 years of the Project, the following were involved in attending the Steering Group and Management Group meetings, either as interested individuals or as representatives of the agencies and other bodies that supported the Project. Those marked * were members of the Management Group.

Mrs Pat Allison, *Cumbria County Council*
Mr John Ascroft, *National Farmers' Union, Lancaster*
*Mrs Josephine Baxter, *Support Worker, Farmers' Health Project*
*Mr Stephen Brook, *Mental Health Services Manager, Bay Community NHS Trust*
*Ms Clare Burdon, *Clinical Manager, Primary Care Nursing, Bay Community NHS Trust*
*Dr Tim Burnett, *General Practitioner, Kirkby Lonsdale, Cumbria*
*Ms Heather Cameron, *Community Psychiatric Nurse, Bay Community NHS Trust*
*Ms Fiona Cassells, *Senior Lecturer in Mental Health, St Martin's College, Lancaster*
Dr Helen Clayson, *General Practitioner, Kirkby-in-Furness, Cumbria*
Ms Pat Clelland, *Institute of Health Research, Lancaster University*
Prof. Julia Davies, *Management School, Lancaster University*
*Ms Paula Easterlow, *Community Psychiatric Nurse, Bay Community NHS Trust*
Ms Jackie Fisher, *MIND, South Eden Project, Kirkby Stephen, Cumbria*
*Dr Catherine Gerrard, *Freelance Consultant*
Ms June Greenwell, *Non-Executive Director, Lancaster Primary Care Group*
*Ms Jenny Hebblethwaite, *Community Psychiatric Nurse, Bay Community NHS Trust*
Ms Louise Houghton, *Assistant, The Bowland Initiative, Clitheroe, Lancashire*
*Ms Dee Howkins, *Nurse Practitioner, Farmers' Health Project*
Dr Diane Langley, *R & D Manager, Institute of Health Research, Lancaster University*
Mrs Dorothy Lodge, *Farmer, Flookburgh, Cumbria*
Ms Sheila Lowrey, *Advocacy Development Worker, MIND, Blackpool*
Mr Peter Lumb, *NFU Branch Chairman, Lancaster*
Ms Ann McMahon, *Royal College of Nursing*
Ms Margaret McSherry, *Independent Researcher, Farmers' Health Project*
*Ms Barbara Maudsley, *Nurse Practitioner, Kirkby Lonsdale, Cumbria*
*Mr Denis Millar, *Support Worker, Farmers' Health Project*
*Dr Maggie Mort, *Institute for Health Research, Lancaster University*
*Ms Carolyn Nuttall, *Project Nurse, Farmers' Health Project*
Dr Ann Orr, *General Practitioner, Sedbergh, Cumbria*
*Ms Bronwen Osborne, *Health Visitor, Sedbergh, Cumbria*

Mr Stephen Parry, *Director of Planning and Development, Morecambe Bay Health Authority*
Ms Hayley Pinington, *Institute of Health Research, Lancaster University*
Ms Sheila Radford, *Countryside Agency*
Ms Jean Scott, *Countryside Agency*
Ms Theresa Shaw, *Foundation of Nursing Studies*
Mrs Sue Smith, *Citizens' Advice Bureau, Windermere, Cumbria*
Ms Karen Spriggs, *Project Officer, R.D.A., Lancaster*
Dr Margaret Stelfox, *Research Assistant, Farmers' Health Project*
Mrs Nancy Tweddell, *Project Manager, Cumbria Farm Link, Penrith, Cumbria*
*Prof. Mike Walsh, *Reader in Nursing, St Martin's College, Carlisle*
Mr John Welbank, *Project Manager, The Bowland Initiative, Clitheroe, Lancashire*
Mr Iain Wilson, *Rural Development Officer, North West Development Agency, Penrith, Cumbria*
Ms Carole Wood, *District Health Promotion Officer, Bay Community NHS Trust, Lancaster*
Mrs Cathy Wynne, *Health Promotion Specialist, Bay Community NHS Trust, Lancaster*

Presentations

The four members of the Project Team were involved throughout with both formal and informal presentations about their work. These are too numerous for all to be included, but the following account gives a summary of the variety of groups, organisations, voluntary bodies and agencies with which the Project engaged. Members of the Management Group also took part in those marked *

(a) Conferences

- at which there were presentations, seminars or posters on the Farmers' Health Project

*Rural Health Forum, Stoneleigh, 1999
Rural MIND Conference, Cheshire
NFU Rural Women's Conference, London
Rural Vicars' seminar, Myerscough College
*RCN Conference, Bournemouth, 2000
*Rural Health Study Days, Lancaster University (2000 and 2001) – *see below for evaluation*
*International Nurse Practitioners' Conferences, Canada (2000) and Dublin (2001)
*Rural Health Conference, Northallerton – presentation, October 2000
*RCN Research Conference, Sheffield
*Farmers' Health evening, Bedford
* Joined Up Countryside: the case for joint provision of services, Countryside Agency, Westminster Conference Centre, London Sept 2001
*Occupational Health in Agriculture Conference, Stoneleigh – presentation, October 2001

Carnforth visit by Karen Spriggs, representatives of Lancs CC& Director of NWDA, presentation given Sept 2000.

Joined Up Countryside Conference, Institute of Rural Health, Powys, February 2001

'Floods, Fuel and Foot and Mouth' Conference, Institute of Rural Health, Powys, September 2001

b) Presentation to Health Service workers

Primary Care Nursing Team, Clitheroe
Ward Nursing Staff, Westmorland General Hospital, Kendal
Community Psychiatric Nursing Team, Ribchester
Health Visitors, Kendal
Northern Nurse Practitioners' Group
*General Practitioners, Lancaster and Kendal Postgraduate Centres
*Rural General Practitioners Conferences, Myerscough College and North Cumbria

c) Health commissioners and statutory agencies

*Lancaster Primary Care Group, Lancaster
*South Lakeland Primary Care Group, Kendal
*Eden Valley Primary Care Group, Penrith
*Morecambe Bay NHS Trust Board, Kendal
*Countryside Agency, London, presentation 19/9/00
*Social Projects meeting, North West Development Agency, Lancaster
Attendance at NWDA consultation meetings Carlisle and St Bees, June 2001

Attendance at "Expert seminar" Countryside Agency, 15/6/00

d) Farming/Rural organisations

Women's Institutes at Pendleton, Firbank, Calder Vale, Pilling, Warton, Arkholme
Young Farmers' Clubs at Winnmarleigh, Lancaster, Kirkham, Longridge, Gosforth, Bilsborrow, Kirkby Lonsdale
NFU Ladies Club, Kendal
Wyresdale Farmers' Club
Cumbria Women's Wool Group with Voluntary Action Cumbria
Lancashire Rural Care Advisory Group, Carnforth
Director of NFU North West, Skelmersdale
Policy Advisor, NFU, on visit to Carnforth
Lyth Valley Farmers' Club
Agricolae (Farm women's discussion group)
Bampton Farmers' discussion group, presentation November 2000

e) Statutory/Voluntary agencies

Citizens Advice Bureau, Clitheroe
Lancashire Youth and Community Services
Age Concern rural care group

Bowland Initiative Steering Group
Lancashire Rural Community Council
Voluntary Action Cumbria
Red Cross
Cumbria Farm Link
WEA, Cumbria
Rural Business Link
Littoral Arts in Agriculture conference Myerscough college July 2000
Short presentation at Littoral "documentation" conference London March 2001
Informal presentation to Andrew Clark, NFU HQ, London March 2001

(f) Media contacts

Radio and TV

The Project Team and members of the Management Group were frequently interviewed on BBC Radio Cumbria and Lancashire, and (once only) Lincolnshire. There was a feature and interview with Radio 4's 'You and Yours' programme, and occasional ones with BBC NorthWest and Border TV.
There was also involvement in the production of HSE videos for Granada TV.

Local, national and medical press

Members of the Project wrote articles about it for a wide variety of publications, ranging from parish magazines, WI magazines and Health Service newsletters to the NFU North West journal and medical journals such as 'Pulse' and 'General Practitioner'.
Articles about the Project, usually based on interviews with its members, also appeared in the Farmers' Guardian, the Farmers' Weekly, the Nursing Times, Health Service Journal and the local press – the Westmorland Gazette and the Lancaster Guardian.

APPENDIX 4 - EVALUATION OF CONFERENCES

Rural Health Study Day 2000

A Rural Health Study Day was held on October 19th 2000 at Lancaster University. The event was a collaboration between the Institute for Health Research and the Farmers' Health Project and attracted 73 participants including GPs, nurses, health visitors, health promotion workers, rural development workers, academics, representatives from PCGs, health authorities, the Countryside Agency, voluntary organisations, farmers and the NFU. Participants attended from all parts of the UK.

Speakers and workshops covered issues including organophosphate exposure, mental health, farm accidents and zoonosis. Discussions revolved around how embedded knowledge and experience possessed by both farmers and health professionals working in rural areas could be drawn upon using innovative methods, with the aim of both treatment and prevention of ill health.

The themes that emerged from the evaluation included:

- Appreciation of the mix of participants.

- The content of presentations was new to many people and of great interest and relevance.
- Several health professionals said they learned much about specific problems such as OP exposure, that they had been alerted to the problem and that this could influence diagnosis and treatment in the future.
- Interest was expressed in investigating promotion of awareness of farm accidents, and greater involvement in prevention initiatives.
- With respect to mental health, respondents expressed that they now had more insight into specifically rural dimensions. One respondent said this had helped generate ideas for commissioning a rural mental health service in another area.
- Respondents asked for more information on OP poisoning and rural mental health in particular.
- There was strong demand expressed for a further study day to build upon the work already done.

Rural Health: After the Crisis, 4th October 2001

A second Rural Health Study Day was held at Lancaster University. The event was organised jointly by the Farmers' Health Project and the Institute for Health Research, and was attended by 93 delegates from all over the UK/Northern Ireland to hear 13 speakers. The aims of the day were to continue the dissemination process from the Farmers' Health Project and to address changing health and social needs resulting from the outbreak of Foot and Mouth Disease. The event received coverage on Northwest BBC TV and Independent TV and radio news, and in farming, health publications and local Press.

Feedback indicated that delegates found the event thought provoking and informative. All participants reported that the day was interesting, had increased their understanding of rural health needs, especially of FMD and its aftermath.

The themes that emerged from the evaluation include:

- The range of perspectives covered during the day was considered good, very good or excellent by all respondents.

  Fascinating, emotional, wide reaching. A comprehensive education into FMD and its effects.

  Impressed by the range of perspectives covered, especially striking were the vet's and farmer's perspectives.

- All but two respondents indicated that they would take action or do things differently as a result of knowledge gained at the study day. Several reported that they would be involved in disseminating information about existing services and new sources of support.

  Cascade information to my clients (District Nurse).

Give a more long-term and frequent contact to farming clients.

Yes, we are having a primary health care meeting in our own practice to address some of the issues.

Yes, be constant in trying to reach out to farming communities, informing GPs and other professionals re: local services/opportunities that might be accessed.

- Others commented that they had ideas for changing their own practice, and developing new initiatives. There were also calls for further work on strengthening rural capacity building, including establishing local rural health forums to encourage communication and enable people to develop their own vision for the future.

  David Black's suggestions around ways of encouraging farmers and rural folk to access sources of support are certainly worth taking forward.

  Heightened awareness of rural issues, clearer understanding of how it happened, worry about the second phase, stimulus to plan for that…

  Will set up local rural forum/partnership.

- Many respondents highlighted the need for further dissemination of information about the support networks discussed during the day, and several felt the issue of support for 'Front Line' workers needed further exploration.

  More concise information to help professionals to refer-on to relevant sources.

  Clearer identification of the 'groups' providing support for those in distress in rural areas.

- Suggestions were also received for a greater focus upon children's needs, projects aimed at improving well being, and more publicity about existing support networks such as the Rural Stress Information Network.

Future Plans: One-day Symposium

Support for health care providers in rural areas to set up similar initiatives will continue. In response to the pressure of requests from people wishing to visit the Farmers, Health Project, or for Project members to give presentations, a one-day symposium is planned for Spring 2002. The location will be in former agricultural buildings in South Cumbria, which have been converted for education and conferences. The day will be dedicated to presenting the main findings from the FHP together with dissemination of practical information. Physical and mental health care in rural communities will be covered, together with the organisational and managerial implications of developing new ways of working.