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Living Longer on the Land

Sustainable Farm Families in Broadacre Agriculture



Collaborative Partnership for Farm Health & Safety
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Australian Government
**Rural Industries Research and
Development Corporation**

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Sustainable Farm Families in Broadacre Agriculture

*“The farm isn’t the paddocks and the crops and the machinery, the farm is you.
And without you, the farm isn’t worth anything.”*



by Susan Brumby, Professor Bruce Wilson, Stuart Willder

May 2008

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Living Longer on the Land: *Sustainable Farm Families in Broadacre Agriculture*

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Foreword

The current health of all Australians is an important ongoing political priority and significant resources have been allocated to determine the current health status and needs of both metropolitan and rural/remote populations. The Joint Research Venture for Farm Health and Safety, managed by the Rural Industries Research and Development Corporation (RIRDC) has placed high priority on research into the health and well-being of farming families. In 2003 the Joint Research Venture provided funding to Western District Health Service and its collaborative partners to undertake a project to investigate the state of farmer health within the broad acre industries of Victoria, southern New South Wales and eastern South Australia for a period of three years.

Determining the current health status of farming families was addressed through structured education programs coordinated over the three year period. Data gathered to address key research questions has enabled the identification of health and well-being factors that directly effect rural farming families. Over 128 farming family members actively recruited by collaborative partners were monitored and educated over the three year period. The results indicate an overall improvement in the health of the farming family member during this time.

Farming families have embraced this research and are incorporating health as an important business indicator that affects their 'triple bottom line'. The Sustainable Farm Families program has grown in its capacity and has been extended to other agricultural industries to test its transferability and to further investigate the health of farming families.

Key outcomes from the project reveal:

- improvement in health indicators in farming members at risk of diseases throughout the program
- positive retention of knowledge gained through the education process
- overall improvement of the participants' health through measurable indicators
- recommendation of the health program to others by 100 per cent of farming participants.

Current publications and peer reviewed publications are available through the Sustainable Farm Families website, www.sustainablefarmfamilies.org.au.

This project was funded by the RIRDC-managed Joint Research Venture for Farm Health and Safety, whose partners include the Rural Industries Research and Development Corporation, Grains Research & Development Corporation, Sugar Research & Development Corporation, Cotton Research & Development Corporation, Meat and Livestock Australia, Australian Wool Innovation Corporation and Dairy Australia.

This report, an addition to RIRDC's diverse range of over 1800 research publications, forms part of our Joint Research Venture for Farm Health and Safety program, which focuses on the adoption of improved systems for Farm Health and Safety.

Most of our publications are available for viewing, downloading or purchasing online through our website:

- downloads at www.rirc.gov.au/fullreports/index.html
- purchases at www.rirc.gov.au/eshop

Peter O'Brien

Managing Director

Rural Industries Research and Development Corporation

Acknowledgments

The publication of this report has taken a great deal of time and effort from all involved. The most important of all is those farming families who agreed to participate and be involved in the Sustainable Farm Families Project. The 128 farming participants played an integral part in the program and their dedication and goodwill to continue each year is to be commended.

Credit must be directed to the Joint Research Venture on Farm Health and Safety for their support and dedication to the promotion of rural farm health. Appreciation to the Western District Health Service board and its chief executive officer, Jim Fletcher, for the organisational support and strategic vision in backing the Sustainable Farm Families – the human resource in the triple bottom line. Their encouragement and strong interest has been fantastic.

Recognition must be directed to the collaborative partners for ongoing support and dedication to the support and promotion of rural farming health. The goal of improving the health of rural farming families was always a priority and this report reflects that dedication. Collaborative partners at the commencement included:

- Farm Management 500
- LandConnect Australia
- Australian Women in Agriculture
- RMIT University
- Department of Primary Industries, Victoria
- Meat and Livestock Australia
- Victorian Farmers Federation

Professor John Martin, La Trobe University, Jennifer Maggs, Ann Curran, Oscar Brumby-Rendell, Michelle McClure, staff at Western District Health Service in Corporate Services, Finance and Health Information, South West Primary Mental Health Team and Victorian FarmSafe Alliance have all made important contributions.

This project depended on bringing together a team of primary producers, health professionals, industry representatives and university academics that were committed to making the health of rural farming families a priority. We would like to thank personally all members for their dedication, patience and assistance in making the research project the catalyst of new research and evidence based practice that will assist in making the health of rural farming families a priority in Australia.

The Sustainable Farm Families would also like to acknowledge formally the dedication and efforts made by all Steering Committee members who were integral in the development, dissemination and ongoing joint management of the project.

Included were:

- Professor Bruce Wilson, RMIT University, Melbourne, Victoria
- Professor John Martin, La Trobe University, Bendigo, Victoria
- Ms Airlie Worrall, Senior Advisor, Department Primary Industries, Victoria
- Ms Susan Leahy, Australian Women in Agriculture
- Ms Delwyn Seebeck, Victorian Farmers Federation
- Mr Neale Price, Meat and Livestock Australia
- Mr Warren Straw, Department of Primary Industries, Victoria.
- Dr Roslyn Prinsley, Research Manager, RIRDC
- Ms Victoria Mack, LandConnect Australia.
- Mr Alastair Dawson, Executive Officer, Victorian Farmers Federation
- Ms Jane Fisher, RIRDC
- Mr John Marriott, Farm Management 500, Victoria

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Executive Summary

What the report is about

The current health of all Australians is an important ongoing political priority and significant resources have been allocated to determine the current health status and the needs of both metropolitan and rural/remote populations. Current data reveals that the health status of rural populations is poorer than their city counterparts (ABS 2000). However, we do not currently have an adequate understanding of the specific health statistics of rural *farming* populations. The current statistical classification groups rural populations within townships, regions and local government shires rather than by employment or vocation.

Farmers participating in this program showed that they are interested in their health, well-being and safety. This report tells the story of a program developed by farmers, for farmers, with health, industry, universities, training organisations and agricultural industries all working together to develop and pilot the Sustainable Farming Families (SFF) program.

The report provides a glimpse of the current health status of rural farming families. It increases our understanding of what affects farming families' health and identifies measures to improve their health, well-being and safety. Many of the specific strategies to improve farming family health were provided by farmers themselves.

Who is the report targeted at?

The report is targeted at those involved in rural health, agricultural industries and the farming workforce, with particular emphasis on those involved in policy and resource allocation decisions. Research bodies including universities, health services and agricultural industries will find the information useful in future planning to effectively service the needs of Australian agriculture. Policy makers and government agencies will find this report of value in developing better policy to improve farmers' and rural health, and in allocating future funding for rural farming family populations. This report also gives the general reader a snapshot of the health status and needs of rural farm families, and of the attitudes of these families towards their own health.

Background to the SFF

The basis for the SFF is unique and proving to be versatile across a range of agricultural industries. It has been driven through the passion of two registered nurses with an interest in farming family health and the future direction of farming throughout Australian agriculture. In association with university-based researchers, they developed the evidence-based health promotion program that is the SFF. The project was structured initially around a specific target group of farming families and covered many health issues including cardiovascular, diabetes, stress, gender specific issues, cancers, injury, safety and mental health. The program content reflected the primary health factors known to affect farmers and rural communities more generally. The program was also planned to recognise the complex environment of farms as workplaces, homes and businesses. Given this complexity farming families were key players in the shaping, feedback and further development of the program through discussion of shared issues and common problems.

The funding allocated by the RIRDC managed Joint Research Venture in Farm Health and Safety has been a key factor in the development and implementation of the SFF project. This report will be significant in shaping future directions in the health, well-being and safety of rural farming families.

Aims and Objectives

The initial aims and objectives of the SFF project were developed in response to the evidence that little is known about the health status of the farming families (men, women and extended families). While there are health statistics regarding rural and metropolitan health there is little empirical evidence of the status of farming families. Our aims for the project were to:

- investigate the link between farming family health, farm related accidents and farm sustainability
- build capacity across rural health disciplines
- enhance farm family and rural disciplines' awareness of early signs of poor health and factors associated with potential illness and potential injury
- enhance farming family health (reduced cardiovascular disease, lower risk factors for cancer – skin, bowel, breast), and to reduce farm related injury
- enable farmers to make comparisons of family health and practice with other farmers in similar and different agricultural sectors
- recommend changes to farming families' lifestyle and OH&S practices to promote good health and OH&S on the farm by developing a family health action plan consistent with other farming practices such as business and natural resource management planning.

Methods used

The goal was to develop and trial a program that enabled farmers to increase their control over and improve their health, well-being and safety. Methods used within the program incorporated a wide range of evidence-based data collection and evaluative frameworks. Participants were recruited by collaborative partners and Farm Management 500, who had a large number of farming family clients from which participants could be recruited. Structured evaluative frameworks were utilised to gather and interpret information under the guidance of Professor John Martin (who was based at RMIT University's Hamilton Campus) at the start of the project, and in the latter stages, Professor Bruce Wilson.

The project's research and education activities included:

- a literature search based on farmer health (health promotion, extension and farmer education workshops)
- focus group discussions regarding attitudes to health, well-being and safety
- structured annual workshops over three years using established learning models and theories
- pre and post knowledge questionnaires
- program process evaluation
- physical assessment process and data collation of health indicators
- demographic and self reported surveys
- data analysis using Statistical Packaging Social Sciences (SPSS)
- action planning to address behaviour and lifestyle decisions
- case studies.

Using these assessment and data collection methods, the project team collated information on the physical health status of de-identified participants with statistical analysis of the data (derived from questionnaires, focus groups and observations) about their own health perceptions, their initiatives to improve their health, their business decisions, and other aspects of their lives. Output from this analysis has been used to prepare conference papers, produce published papers and to share with the Joint Research Venture for Farm Health and Safety and other bodies interested in the health, well-being and safety of farming families. The research has also been used to gather farmer feedback and to improve the program's content and delivery.

Results/Key findings

The SFF project has achieved some very important outcomes and research findings during the past three years. The significant outcomes include:

- high retention rates of project participants over three years
- retention of new knowledge gained over three years by participants
- a separate economic evaluation which has demonstrated the viability of SFF intervention on health and well-being of participants and its overall value for money
- statistically significant reduction of clinical indicators which correlate to major diseases including cardiovascular disease and type 2 diabetes

- increased use of protective aids and equipment on farms and positive lifestyle changes consistent with action planning by participants to commit to family holidays and other stress reduction activities
- generation of further research into the health, well-being and safety of farming families across Australia
- three fully refereed conference papers published highlighting the positive health outcomes of the research with additional abstracts presented at numerous conferences
- recommendation of the program to other farming families by all participants.

Implications for relevant stakeholders

Industry

The implications of the SFF project for Australian agriculture are significant. Industry involvement has been a key factor in the coordination of this project and has played a leading role in the steering committee and recruitment of the sample population. Industry shares the ownership of the success of the research and is now using this success to foster additional programs for key farming communities. Industry has also benefited from the association with broad inter-sectoral collaboration in the development and implementation of this project. This has been useful for the broad acre industry and lays a foundation for similar projects in other agricultural communities.

Farming Communities

Significant community impacts from the research have occurred with many of the programs across the three states generating ongoing activities. Community involvement has generated the desire for programs beyond the funding timeframes and encouraged future program development by other agricultural industries and health services. Positive community response has seen the program receive major awards in 2005 and 2006. Initiation of work safe programs, additional funds for health and well-being grants and even supermarkets changing the foods they stock all constitute part of the benefits for particular communities.

Policy Makers

The SFF research has seen an emerging interest from government and policy makers in gaining more understanding about farming health, well-being and the future of the family farm enterprise. This has resulted in some additional funding to expand the action research, number of participants and training opportunities. The involvement of the Victorian Department of Primary Industries, Victorian Farmers Federation and more recently the Victorian Department of Human Services has generated a broader cross-section of institutions interested in the Victorian dairy industry, together with training of a small number of health professionals and the production of resource materials to assist in program development.

Others

Interest in the SFF program has been generated with key collaborative industry and sector partners coming together to continue the development of the SFF initiatives to improve the health, well-being and safety of farming families. This positive response from the wider Australian agricultural industry has been a key outcome for the SFF program. It is remarkable that a small rural health service has been able to draw on its grounded experience and develop this initiative to the stage where it now has such a prominent national and international focus.

Recommendations

These recommendations have implications for all levels of government, health, industry, local populations and individuals. An appropriate response will require government and industry to work collaboratively in assessing the specific policy implications of the project, and to apply the resources necessary to bring significant benefits to the health and well-being of Australian farm families.

It is recommended that:

1. The Australian government fund a national SFF program to establish regional partnerships with rural and regional health services.
2. The SFF program be included in the annual health promotion plan of rural and regional community health services with ongoing financial support from the Australian government.
3. Future SFF programs be structured around partnership arrangements with institutions and organisations in health, government, industry, education and community.
4. The evidence-based approach remains a cornerstone of the SFF project as it is adopted by rural and regional health services across Australia.
5. The Australian government work with the Western District Health Service to fund a five year program to implement the previous recommendations in the report.

1. Introduction

The Farm is You ... So on Your Bike

By Melissa Marino – *Ground Cover*, January – February 2007

THE FARM IS YOU ... SO ON YOUR BIKE

It took a bit of arm-twisting to get Jacci Rabone involved in the Sustainable Farm Families program. While her husband Harry was keen to volunteer, Jacci, despite being fit and always looking after herself, was not sure it would be her thing. "I'm not exactly a health nut," she says.

After some convincing, she reluctantly accompanied Harry on the 90-minute drive from their Kaniva property to Horsham, Victoria, for the first two-day session.

Attending was a big commitment for the couple, who farm 1214 hectares and have two young boys. But three years later and with their program completed, both Jacci and Harry are very happy she went, because it may well have saved her life.

After the first session, Jacci was referred to a specialist, who ordered two suspicious-looking moles to be tested. One was malignant.

"If I hadn't gone to the forum, it wouldn't have been detected," Jacci says. "I was a bit lucky."

While not quite as dramatic, Harry too found the program addressed some specific health concerns, particularly stress. He had an inkling that the long bike rides he enjoyed helped him relax and at the course he was told that exercise was indeed directly linked to mental health.

Now he has tools to help manage stress and a legitimate excuse to get on the bike. "If I'm feeling stressed out and I have time, I try to go for a ride," he says.

The stress management methods taught at the program have helped the Rabones cope with a drought that saw them harvest only five or six per cent of their crop.

But not only has the program addressed specific issues, it has enhanced their health overall. "Everything from eating to de-stressing to safety," Jacci says.

Jacci and Harry have improved in every measure – hip-to-waist ratio, BMI, blood sugar and cholesterol. They have also undertaken a safety audit of the farm.

And after a guided trip to the supermarket

on the program's first day taught the Rabones how to read food labels to identify healthier options, the proprietors of Jacci's local general store agreed to stock low-fat and low-GI products.

Jacci says the course changed her perspective: "The farm isn't the paddocks and the crops and the machinery. The farm is you. And without you, the farm isn't worth anything."

— Melissa Marino

Improving in every measure: Harry and Jacci Rabone, participants in the Sustainable Farm Families program, on their Kaniva property. PHOTO: MELISSA MARINO



This case study by Melissa Marino for the Grains Research & Development Corporation publication, *Ground Cover*, points to many of the issues which have arisen in this program. Jacci and Harry are not alone. As reported by the Australian Institute of Health and Welfare report in 1998, '... the general health of rural people is, by urban standards, very poor. Rural populations have above average rates of premature mortality and death through heart disease, cancer and suicide' (AIHW 1998). In 2002 the AIHW again noted that death rates are indeed higher outside metropolitan areas (AIHW 2002).

Rural workers have reported increased substance abuse, low morale and depression – the long hours of work lead to greater risks of accident and to withdrawal from community activities and involvement. This is consistent with research conducted by Fragar and Franklin (2000) who noted that male farmers face a 40 per cent increase in age-standardised deaths compared to the general male population. Most commonly, these deaths are caused by cancer, farm injury, cardiovascular disease, and suicide. International research has highlighted hearing deficits (McCullagh et al. 2002) and farm work practices that are consistent with taking pesticides into the home where children and spouses are exposed (Thompson et al. 2003). Unexplained elevated incidence of cancers and mortality in farmers and agricultural workers has also been identified in British Columbia, Canada (Wood et al. 2002).

The full costs of farmer illness, injury and accidents are not known. Fragar and Franklin (2000) noted that the costs of farm injury and illness are probably not being borne by the industry; their impacts affect all of Australian society. The long term consequences of ill health or injury such as disability, accident insurance, decreased production and poor psycho-social outcomes in farming families in Australia are difficult to ascertain. Apart from the lack of formal research, even getting adequate data on farming families from

official sources has been complicated by data-gathering practices. Prior to 1996, only one person per household was able to indicate that they were the farmer in the Australian census questionnaire. This has made comparing female farmer health within the rural population very difficult.

While the data is sketchy and incomplete, sufficient evidence has become available that indicates the health of farming families is at risk and likely to be worsening. The importance of a collaborative effort between governments in Australia to address the health issues of Australians living in rural and remote areas has already been acknowledged in the Healthy Horizons Framework (National Rural Health Policy Forum and the National Rural Health Alliance 1999). Health practitioners now recognise that social context plays an important role in determining occupational health and safety (OH&S) outcomes. Nowhere is this more relevant than for farming families. In Australia, according to the National Farmers Federation (2006), 99 per cent of farms are family owned so the workplace is also the home place. The family is a business unit, yet it also has all the emotional dynamics that can arise in the family context. Building human capacity is a major factor in addressing the health, illness, injury and OH&S outcomes for rural people and farming families. In particular the strength of social capital and community relationships (Doyle et al. 2006) is seen as pivotal to the maintenance of mental health in rural communities, yet it also has been eroded by recent changes to rural life and adverse climatic conditions (National Mental Health Strategy 2000).

The issues arising from this combination of serious concerns about farm families' health, are diverse and complex yet there is inadequate understanding of what is actually happening. This sets the scene for the SFF project. The 'Sustainable Farm Families – the human resource in the triple bottom line' project set out to integrate key farmer health issues with mainstream rural research, farm management analysis and quality assurance programs. Informed by a social model of health, the approach focused on farm families as the key site for intervention, recognising that health and rural sustainability is created where people live, work, love and play (Kickbusch 1989). The principles of 'triple bottom line' thinking were addressed through working with key industry groups and included incorporating farm family health indicators into farm management planning. This would enable health, safety and well-being and farm management issues to be addressed coherently, to broaden the impact of social and economic benefits by addressing rural social health issues alongside farm management development.

Background to the SFF concept

What is the Sustainable Farm Families (SFF) project? The SFF concept is unique and versatile. It has taken shape from the driving passion of two registered nurses with interest in farming family health and the future direction of farming throughout Australian agriculture. It is centred on direct engagement with farming families, informing them about their personal health situation while broadening their understanding of healthy living options and farm safety. It recognises that their family health is essential for them to effectively utilise their economic and natural resources.

The SFF program was delivered to six groups of farming families over three years using a format that engaged them as active learners where they commit to healthy living and safe working practices. Its activities encompassed an annual workshop, newsletters, industry association involvement, pre and post knowledge questionnaires, personal action plans and measurement of clinical indicators. The underlying message has been to increase awareness of the importance of a healthy human resource in the 'triple bottom line' and to focus equally on financial, natural and human resources – all essential for farming success. The project motto was: 'No point in a better bottom line if you're not there to enjoy it.'

Funded through the Joint Research Venture for Farm Health and Safety, managed by the Rural Industries Research and Development Corporation (RIRDC) and led by Western District Health Service (WDHS), the SFF program identified the need for strong inter-sectoral collaboration. Partnerships were developed with Royal Melbourne Institute of Technology (RMIT) University, Farm Management 500 (Farm500) (farmer benchmarking group), LandConnect Australia (a training organisation), Victorian Farmers Federation (VFF), the Victorian Department of Primary Industry (DPI) and Australian Women in Agriculture. The funding was provided to develop, implement and evaluate a three year program to address farming family health issues amongst broad acre farmers in Victoria, South Australia and New South Wales.

Formation of consortium

Susan Brumby and Stuart Willder, both employed through Western District Health Service in the township of Hamilton in Victoria's south-west, are the principal investigator and principal researcher for the SFF project. Susan's extensive farming background, experience in business development in the agricultural industry, previous involvement with women on farms and health qualifications provided an important strategic basis for the project's development. Stu, working as a men's health educator and intensive care nurse, had developed a rural men's health project which educated male farmers regarding health and well-being conducted one night per week over a five week period. This initial experience revealed a great deal about the issues facing farmers and the ways in which informed decision making processes could assist farmer health. Early indications highlighted that farmers were interested in their health and would benefit from health education and assessment.

The previous professional contact with Mr John Marriot, from a state-wide farm consultancy group Farm Management 500, indicated a shared concern about the issues facing farming families and provided an important starting point for industry contact. This contact allowed access to farming families already focused on the benefits of farm family business benchmarking and the importance of triple bottom line thinking. John's expertise in the area of farm family issues and his ability to provide a point of recruitment enabled the project to develop further.

The SFF project application was prepared in partnership with RMIT University's Centre for Rural and Regional Development (also based in Hamilton with the WDHS), LandConnect (with extensive training and educational experience in agriculture and natural resource management), and the Victorian Farmers Federation Social Welfare Committee. These partners saw the potential value of the project and came together to form the Sustainable Farm Families initial Steering Committee. This Committee commenced the initial application and planning process and has continued to meet every three months to monitor and contribute to the ongoing development of the program (see the terms of reference in Appendix 1). The Steering Committee has played an important role in coordinating future directions and undertaking strategic planning in relation to the project. The membership of the Steering Committee has included:

- Australian Women in Agriculture (farmer)
- LandConnect Australia (farmer and trainer)
- Victorian Farmers Federation (farmer representative and member of social issues committee)
- Meat and Livestock Australia
- RMIT University (chairperson)
- Western District Health Service (lead agency)
- RIRDC (representative)
- Farm Management 500 (farmer and director)
- Victorian Department Primary Industries (representative)

Other parties interested in the project were invited to attend as appropriate. Key reporting criteria centred on the following items:

- budget and reporting of expenditure
- project rollout and collaboration with key partners for timetabling
- training and development opportunities
- key results and interpretation
- strategic directions
- farmer representative feedback.

All meetings have been minuted and reported back to collaborative partners and RIRDC.

2. Objectives

The SFF project objectives were:

- to design and deliver a training program that assists farming families to identify strategies to enhance individual, family health and relevant OH&S practices
- to identify and track farming family health indicators for inclusion in Farm Management quality assurance processes
- to provide information on the relationship between family health, health as a social issue in rural communities and farm productivity
- to communicate project findings to farming families and the health and agricultural sectors.

The key strategies employed to achieve these objectives included a training program delivered to farming families that discussed health, well-being, safety and injury in rural and farming populations, individual health assessments and assistance in formulating an individual health improvement plan. This project was seen to complement farming industry initiatives relating to farming occupational health and safety, consistent with the assumption that as a farmer's health and well-being is enhanced, OH&S incidents are reduced.

The hypothesis guiding the research was that there is a relationship between farming family health, the incidence of farm related accidents and farm business sustainability.

The more specific aims of the project were:

- to investigate the link between farming family health, farm related accidents and farm sustainability
- to build capacity across rural disciplines through greater collaboration amongst organisations such as:
 - Farm Management 500 (farm benchmarking and quality assurance)
 - Western District Health Service (rural health)
 - RMIT Hamilton (research and development)
 - LandConnect Australia (skills training and staff development)
 - Meat and Livestock Australia (industry development)
 - FarmBis, Farm Safe, Victorian Farmers Federation
 - Australian Women in Agriculture
- to enhance farm family and rural disciplines' awareness of early signs of poor health and factors associated with potential illness and potential injury
- to enhance farming family health (reduce cardiovascular disease, lower incidence of cancer – skin, bowel, breast), and the reduction of farm related accidents
- to enable farmers to make family health and practice comparisons between other farmers in similar and different agricultural sectors
- to recommend changes to current farming families' lifestyles and OH&S practices to promote good health and OH&S on the farm by developing a family health plan consistent with other farming practices such as business and natural resource management planning.

The deliverables to be offered to the Joint Research Venture for Farm Health and Safety and collaborative partners included:

- a farm family health awareness and improvement program
- provision of information relating to farm family health and sustainable farming
- training materials including a family health and well-being action plan for farmers
- a training module that can be used across a range of farming industries
- benchmark indicators of farm family health to be incorporated into farm business plans and Farm Management 500 groups and other farm benchmarking systems
- communication of research findings through conference papers and articles in industry magazines, journals and radio
- a user-friendly template to identify personal health issues to fit into a farming business plan, which would also be available on CD Rom.

Given the objectives for this project, the report is much more than providing information about research findings. The action and development work implied in the first and fourth objectives has been a central driver of the project and an important part of this report is telling that story:

- How did the workshops with farm families work?
- What kind of information was presented to them?
- How was the educative work integrated with the information gathering and the research strategy?

While the focus of program design was on the workshops, these were supplemented by other important activities. Not least amongst these was the expectation that participants would choose to undertake particular ‘actions’ designed to improve their health, that these would be public within the group, and that they would be asked to report on them.

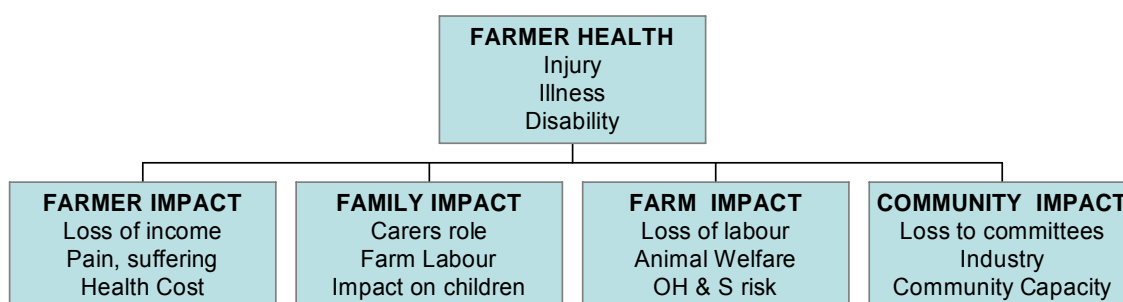
In considering this complexity of objectives and activities, it becomes apparent that this is very much an action research project in which development is undertaken alongside research, and research then informs future action. The report attempts to capture each of these dimensions. The program design was informed not only by the available research, but also by a range of theories related to adult learning and to evaluation. Before presenting the major findings, the next chapter provides some account of the underlying theory and design of the program.

3. Theory and methodology

Sustainable Farm Families concepts and development

The framework underpinning this project was based on the assumption that a farmer's health has a four pronged impact on the health of their family unit, their farm and ultimately the local community (Figure 3.1). It is important to note that most farms in Australian are still family owned and operated (NFF 2006), with health, well-being and safety having a huge impact on family and workplace lives.

Figure 3.1: Relationship showing impact of poor health and injury on farmers, families, farms and communities (Source: Brumby 2005)



Applying the conceptual framework to the development of teaching strategies and evaluative frameworks was the most difficult part of the project. Yet this framework has been fundamental to enabling the project to develop the innovative basis of its success. In planning the project, the knowledge and experience of the WDHS project leaders was enhanced through learning about educational processes, research activities and design of materials. In addition to the support of key partners, such as RMIT and LandConnect (registered training organisation), the project leaders completed a certificate in workplace training and assessment. This learning was important in the development of the participant resource manual, education material and presentations.

Ethics approval for the SFF project was granted as per National Health Medical Research Council guidelines through South West Health Care Ethics Committee (2003). The SFF project was to be available for people who have farmed for more than five years and are aged between 18 and 75 years. It was open to any member of a farming family business and the participants were to be self selecting, typically through networks such as Farm Management 500 and the Victorian Farmers Federation. The opportunity to participate was advertised also in local newspapers.

A great deal of planning, consultation and development occurred in the design and delivery of the SFF project. One benefit of this phase was the strengthening of the focus on rural farming family *health*. This provided an opportunity to address the broader issues of health and well-being. By involving the whole farming family unit the project was able to address health, safety and well-being issues suffered by both men and women and multiple family members.

In developing the SFF project, many theories and principles were used to inform and formulate its innovative approach. The development of the education program had to be appropriate for rural men and women who have differing levels of education and comprehension. Azjen and Fishbein's (1980) theory of 'reasoned action and planned behaviour' guides the learning experienced by participants in the SFF. Azjen and Fishbein's theory suggests that behaviour changes occur through;

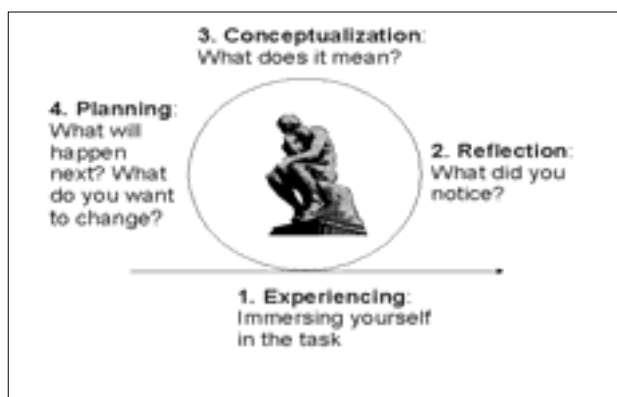
- the sharing of values and beliefs about the health of the farming peer group
- a common commitment to individual physical and knowledge assessment
- sharing with their peers how best to influence health outcomes
- better understanding of the consequences of poor health and safety behaviour of farming families.

The complexity of the issues to be addressed in this program, and the relevance of drawing on several intersecting theoretical perspectives, was considerable. The contributions of the various partners and access to health, research, industry and educational expertise were all essential to the construction of a program that would engage the participants, provide appropriate frameworks for learning, foster real change in practices, and allow the collection of relevant research data.

This approach to learning is appropriate for farming families learning together as it allows particular focus on issues such as farm health and safety, the role of good farm practices and the effects on the farming family unit. This process has allowed participants to use the experience and support of their peers to make informed choices and identify behaviours that affect farming family health.

The training and delivery model was based on Kolb's (1984) experiential learning model (Figure 3.2) which allows participants to follow a systematic approach to identify and comprehend new information. Kolb's model is based on the understanding that adults learn best when they reflect on their own experiences, acquire new concepts, and actively experiment with new ways of working, which then become part of their experience base. This model is supported with videos, graphs, statistics, and reflection on one's own practice.

Figure 3.2: Experiential Learning Model (Source: Kolb 1984)



The Kolb experiential model is based on his observations that people learn best moving through a series of iterations in which they:

1. Immerse themselves in the learning.
2. Reflect on their own concrete experiences of an issue, or topic.
3. Acquire new concepts, information, understanding, and/or attitudes about the issue.
4. Plan to use new knowledge and understand change in their own context.

In this process, the relationship with the leaders of the learning process is important. It has been an important strength of the SFF project that the delivery team has included male and female health professionals with expertise in women's and men's rural health. The project leaders have remained committed to the project throughout its life, thus offering continued support to participants and building trust that has enabled ongoing learning for all participants. Support from the key collaborative partners has also assisted in providing continuous support for participants.

The SFF workshop has been evaluated using Kirkpatrick's (1998) training evaluation framework. This approach to evaluation includes four levels and is carried out over three years:

- positive experience – evaluate reaction of participants
- conceptual understanding – evaluate learning of participants
- can the learning make a difference – evaluate behaviours of participants
- demonstrable outcomes – evaluate results of the workshop.

Rogers (1983) research on the diffusion of innovation has also helped to understand how new ideas and practices are adopted in groups. His work, which included adoption of innovation among farming communities, defines diffusion as 'the process by which innovation is communicated through certain channels over time by members of a social system'. The SFF project involved a number of key groups to assist in the early adoption of the health and safety practices advocated in the program. Importantly a central group has been the farmers who have participated in this program and still meet regularly (through Farm500) to discuss farming matters with an agenda which now includes health, well-being and safety. The Farm500 group was chosen for this research because they are regarded as innovators in farm management and can be considered as such in Rogers' typology. The rationale in working with this group was to obtain

evidence on the relationship between health, farm related accidents and farm business sustainability. Early adopters were targeted to refine the workshop approach, identify issues and engage in a collaboration which could extend across the three years of the health and well-being program. As discussed later in this report, the results suggest that participants think first about their own health, that of their family and then their farming business in following through on the impact of the program.

Data gathering methods

From the outset, a variety of data were important in this project. These included both physical health data, as well as self-reported perceptions of health status and of social and family context. Other data related to the learning process itself, and the different methods which were employed in the program. The remainder of this section provides a summary of the key data gathering sources.

Demographic and health information

All participants were assigned a SFF identifier number, which allowed for all information to remain anonymous. Prior to the commencement of the workshop demographic information including age, gender, ethnic background, health conditions and health behaviours were collected using the Victorian Department of Human Service Coordination Tools (see Appendices 5, 6, and 7). These tools draw from the health promotion literature and practice reviews, as well as incorporating key consumer information including social, psychological, medical and physical data useful in determining risk and trigger referrals and the need for further assessment. A copy of the Service Coordination Tools is available at website <http://www.dhs.vic.gov.au/health/pcps/coordination/scct2006.htm>.

Sustainable Farm Families workshops

This was the centrepiece of the SFF program (Plate 3.1). At the commencement of the program, a two-day workshop was conducted, followed by a one day workshop approximately 12 months later, with the third workshop a further year later. The workshops were clearly significant interventions in themselves, but also served as key markers in the collection of other data on the participating families and their circumstances.



Plate 3.1: Participants at a Sustainable Farm Families workshop

Workshops were used to enlighten farmers about the factors that affect farm family health, health and safety and farming business (see Appendix 3 for workshop programs). They served also as an opportunity to undertake the initial health assessment and to monitor health status over time. A variety of aids were used, including table group discussions, videos, medical models, supermarket tours and label reading, medical equipment, power point presentations, specific health promotion literature and the developed SFF participant manual. These workshops were evaluated using Kirkpatrick's (1998) evaluation methods. A copy of the evaluation questionnaires is located in Appendix 10.

Health assessments

The physical health assessment process involved the assessment and collation of physical data derived from each participant in the project (see Appendix 4). Under ethical guidelines, information and biometric measurements were collated in a private and confidential format. Each participant had numerous measurements assessed as per guidelines from the NHMRC for indicators such as fasting cholesterol and blood glucose, weight for height, body mass index, waist-to-hip ratio, blood pressure and pulse. Following interpretation of these readings, and with reference to ethical guidelines and standards for acceptable results, individuals were referred for relevant further assessment or intervention. Individuals also underwent a one-on-one physical assessment in which a discussion of their initial assessment was given along with further evaluation of other physical and social indicators. The collation of this data was stored under privacy legislation in a completed health record safely stored by the lead agency.



Plate 3.2: SFF Team Members traveled to remote locations to work with farming families



Plate 3.3: Participating farmers working in table groups as part of focus group reflection

Focus groups

Focus groups (Plate 3.3) were used throughout the workshops to assist the participating families to identify farm family health issues. As this project is as much about consciousness raising as about understanding the relationship between farm family health, farm related accidents and farm sustainability, focus groups were an important vehicle for eliciting information and developing understanding. Responses from focus groups were collated and analysis undertaken in conjunction with the research partners.

Farm safety surveys

These surveys collected information about farming practice, use of sunscreen, personal protective equipment, roll-over protection and power take-off guards on tractors, first aid qualifications and use of helmets (added in year 3). They also recorded any self-reported farm injury that had occurred over the previous 12 months. After the program had commenced, there was some consultation between the project team and the Australian Centre for Agricultural Health and Safety. As a result, there was some amendment to the survey after Year 1. A copy of this survey is included as Appendix 8.

Pre and post knowledge surveys

Knowledge surveys (Appendix 9) were given to participants at the commencement of each workshop and were a mixture of recognition questions (multi-choice), true/false and short answer recall questions (Kay 2002). Testing the change in knowledge of the participants was assessed by fitting a generalised linear model with binomial distribution and logit

link. Where this method failed to predict a result (converge), Fisher's exact test was used. All statistical analyses were performed using GenStat® (GenStat Committee 2003). This analysis was performed by an independent biometrician working with the Department of Primary Industries Pastoral and Veterinary Institute at Hamilton, Victoria.

Participant action planning

Within one month of completing the SFF workshop, action plan templates were sent to participants. The templates requested information on areas that participants would like to address, the method of how they were going to address these and how they would report back on their progress the following year. The choices for actions were analysed according to theme at the conclusion of the program. At the following year workshop after the health assessment had been undertaken, all participants rated themselves according to the SFF action plan scale (a behaviourally-anchored scale developed by John Martin specifically for this project). These results were documented in the health records and also analysed for frequency from SPSS in terms of how participants had performed.

Workshop evaluation

Following each workshop, session participants were requested to complete an evaluation form to assess the session activity and their satisfaction with the program. This required reflection on the information

provided, learning techniques, the degree of active learning, assessment of the resource kit, and the application of learning to their life and farm. A four point scale was used (anchored at strongly agree, agree, disagree and strongly disagree), together with the opportunity for open comments. Feedback on the venue, food and information dissemination was also gathered (see Appendix 10).


Impact evaluation

This included undertaking pre and post knowledge questionnaires and changes in individual behaviour and intentions through the action planning process. An example for both men and women is included in the pre and post questionnaire and also the participant action planning (see Appendix 11).

Outcome evaluation

A project was funded by RIRDC to assess the economic values of the clinical indicators from the SFF project and brought two evaluation experts (Boymal and Rogers) into the team. This measured the longer term effects of the project and the changes in health indicators particularly. It addressed questions such as: Have the number of overweight people decreased? Was there a change in the number of participants with high total cholesterol? Were the changes maintained over the life of the SFF project? Were more people wearing personal protective equipment following participating in the project? This sequence of intended outcomes is illustrated in the Table 3.1.

Table 3.1: Sequence of intended outcomes from the SFF project (Source: Boymal et al. 2007)



Participation in SFF project	Behaviour changes	Changes in clinical indicators	Changes in morbidity and mortality	Benefits of these changes
	Self-report	Measured after 1 year and after 2 years	Projected changes	Estimated benefits
	<ul style="list-style-type: none"> Eating healthier food More exercise Safer farming work practices Health follow up checks 	<ul style="list-style-type: none"> Obesity-related indicators: <ul style="list-style-type: none"> Waist circumference Body mass index Waist-to-hip ratio Percentage of fat in body mass Blood sugar level Blood pressure <ul style="list-style-type: none"> Systolic Diastolic Cholesterol levels Pulse rate General health score (not measured in year 2) 	<ul style="list-style-type: none"> Reduced risk of <ul style="list-style-type: none"> Cardio-vascular event Death due to cardio-vascular event Diabetes <p>In addition, there are likely to be reductions in</p> <ul style="list-style-type: none"> <i>Farming accidents</i> Cancer Anxiety and Depression 	<ul style="list-style-type: none"> Increased Quality Adjusted Life Years Downstream cost savings

Table 3.2 provides a summary of the data gathering schedule over the life of the project. This includes a listing of the surveys, the physical assessments, and supplementary activities such as the action plans and focus groups. The information from all of these sources has been recorded and used in the preparation of this report, and parts of it used for the related RIRDC project on the economic evaluation of the program (Boymal et al. 2007).

Table 3.2: Table of methods used throughout the program – survey, assessment and action plans undertaken

Sustainable Farm Families Methodological Tools	Year 1	Year 2	Year 3
1. SFF workshop education	2 days	1 day	1 day
2. Health assessment	√	√	√
3. Demographics	√		
4. Health conditions and behaviours	√		√
5. Kessler K 10		√	
6. Farm Safety Survey	√	√	√
7. Pre Knowledge Questionnaire	√	√	
8. Post Knowledge Questionnaire	√	√	√
9. Workshop Evaluation	√	√	√
10. Participant Action Planning	√	√	
11. Action Plan Achievement		√	√
12. Business Decisions Survey			√
13. Focus Groups	√	√	√

4. Objective 1: Design and delivery of the Sustainable Farm Families program

Development and recruitment

The development of the SFF project began at the WDHS in early 2002 when the concept of health education delivery to farming families and agricultural sectors was investigated with Farm Management 500 (Farm500). Farm500 is a farm consultancy service which was interested in linking such a program to farming business indicators. From the prior experience of both WDHS and Farm500, the need to focus on farm health and well-being, farm safety and the sustainability of the farm was very real, and there was an opportunity for an innovative research and educational program to be developed addressing the relationships between these factors.

It was apparent that the success of the initiative would depend on broadening the partnership. There would need to be some expertise in adult learning, training program design and evaluation for example. The philosophical underpinning of the members in the partnership was to develop a program that would best suit the needs of farming families. LandConnect, a registered training organisation, was contracted to assist in the design and coordination of the resource manual and RMIT University assisted in the development of research-based frameworks and the selection of data gathering techniques for the project. Recruitment of participants was coordinated through Farm500 and the Victorian Farmers Federation. Other collaborative partners included Australian Women in Agriculture, the Victorian Department of Primary Industry, and Meat and Livestock Australia. A steering committee with representation from these organisations met quarterly in both metropolitan and rural areas to provide leadership and strategic directions for the project.

This groundwork was essential to the success of the project, providing a strong foundation for a collaborative approach which brought together health, university, agricultural and industry representatives to improve the health of farming populations. Teleconferences enabled the health professionals to speak to farmers at local Farm500 meetings. Their explanation of the education and assessment process assisted farmer recruitment. Early responses were that recruitment was enhanced as participants received a full 30-minute physical assessment within the program. This was reinforced when participants were asked why they came along to the first session and the majority answered that the physical assessment was a major reason for them attending the program.

Ethics approval was obtained from the South West Health Care Ethics Committee on the requirement that certain specific objectives were met. The Committee made several recommendations including the need to refer participants with fasting cholesterol levels greater than 5.5 mmols to their general practitioner and to use the Heart Foundation's (2002) minimal requirements for exercise. The formation of a health record for each participant with the safe storage of these records was also recommended by the Committee. These records are stored securely at the WDHS in Hamilton. All participants provided a signed consent form which is kept with their medical record.

Reasons for participating

At the start of the program, the farmers were asked a number of questions including:

- Why were they participating?
- What did they believe were the primary health issues for farming families?
- What were farm families' attitudes to health?
- Where did they access health information?

Their reasons for participating can be grouped into four categories:

- a) Obtaining a free health check
- b) Opportunity to learn about their health
- c) Broader concern for farmer health
- d) Family and farming industry group encouragement (pressure) to participate.

The opportunity of a free health check and information on health (Plate 4.1) was the most commonly cited reason for participating. Farmers recognised it was important to understand their current health status and agreed that follow up contact with their health professional might be required. They also felt the complexity and delays in accessing health services (in rural areas in particular) created apathy or indifference in having regular health checks.



Plate 4.1: Providing information on healthy and good tasting food were an important aspect to the SFF program and learnings

Participants reported that it was important for them to learn about their own health status. Managing stress was a recurring theme and was cited often as a reason for participating in the program. Overall, farmers wanted to improve their family health, especially the health of their children, and the program helped them to do this. Participants also expressed broader concerns for farmer health and recognised that health was linked to farming business success and that research into this aspect of farming had not been a high priority. They were keen to be part of a project which would run over several years, which would enable them to learn about health and to begin to make a difference in their family health status. One group recognised the ‘cost of downhill slide’, which meant that there were increasing costs to their farming business as they became less able to do the work because of poor health.

Some men commented that their partners’ interest in family health was the reason they attended. Their farm industry connection or consultant also influenced their decision (more men attended than women) to attend. Most participants mentioned a regional contact as being a key motivator for their attendance.

Many commented openly that they were concerned about the ability of their partner to continue on with work and the impact on their partner’s health. Women farmers commented it was easier to get their husbands to participate in a farming industry-sponsored health program than to get them to visit a GP.

The learning process for program deliverers

The program deliverers (Brumby and Willder) are registered nurses with Masters in Health Management and Nursing and Certificate IV Workplace Training and Assessment qualifications, respectively. Working with RMIT’s Centre for Regional and Rural Development (Martin has a Masters Degree in Adult and Continuing Education and a Graduate Certificate in Higher Education), the WDHS developed the theoretical bases for the SFF program.

Using Kolb’s (1984) experiential theory of adult learning, each workshop topic was introduced by using his iterative learning cycle. Kolb identified:

- *Reflection and discussion* – What do I think about the issue?
- *Conceptualisation and adding the facts* – What do these facts mean to my family, my farm business and me?
- *Actions* – What will I decide to do with this new information
- *Personal experiences* – New information becomes part of my personal experience.

For example, in the workshop on cardio-vascular disease, the participants are asked to address the following questions in small groups:

- What do you believe are the major causes of heart disease?
- How has heart disease affected you, your family and friends?

- How do you feel about the treatment of heart disease?
- What can you and your family do with this new information?

In the action planning part of the workshop, program participants are invited to identify strategies that they could adopt to prevent themselves succumbing to the disease.

Designing the education process was a challenge, considering the different learning needs of participants and the timelines for the project. Previous feedback from rural men's and women's health projects and input from RMIT University and LandConnect enabled the process to develop. As a pilot project, there was opportunity for constant critical review, adjustment and evaluation throughout the timeframe. Issues such as time of delivery, venue, resources, coordination and facilitation were reviewed by the Steering Committee and all points of view considered in the development of the delivery process. This collaborative approach allowed for all partners to be involved in the structure and logistics of the program rollout.

The design process involved extensive consideration of the factors that affected the participants' access to health education and more specifically, their acceptance of health education, and the physical assessment of their health. As the challenge of recruiting participants occurred at the same time as program design, considerable attention was given in telephone conferences with Farm500 groups to outline the program and its purpose as clearly as possible, using where necessary, the formal plain language statement.

Developing a comprehensive learning program also took into consideration the level of language to be used and the challenge of catering for different modes of learning including videos, tactile touch for anatomical models, assimilation with day to day analogies and the use of picture and reference material. Table group discussions (Plate 4.2) were an important part of the education process with all participants being seated in groupings of four to five. These 'table groups' were asked to consider questions throughout each session as a group. This process allowed time for reflection, sharing, learning from others and reinforcement of key learnings relevant to the family and individual. This process followed the set model proposed by Kolb (1984). Throughout the training, participants were encouraged also to reflect on their learning and to develop a personal action plan using learning logs and personal diary entries to monitor their performance.



Plate 4.2: Participants in table group discussions

Practical issues such as choosing a venue and setting dates also became a challenge, because of factors such as seasonal pressures, room requirements and the need to have close proximity to a supermarket. These issues were reviewed constantly in the first year, and again in planning for subsequent years and setting dates for programs. Some of the specific factors which arose from the specific design of this program included:

- the venue and ease of access
- breakfast provision and amount of food required
- childcare and transportation to and from school
- ability to set room up in café style
- access to parking
- air conditioning or heating
- comfort of venue
- other community events in progress
- other demands of the farmers' time
- adequate breaks and refreshments
- access to supermarket in walking distance of venue
- availability of break out rooms and rooms for private physical assessments.

Running this program in rural Australia highlighted the lack of facilities to run such programs. Facilities used included motel conference rooms, community facilities (e.g. CFA offices, local government offices) industry accommodation, conference rooms and the like.

Program design

The success of the first workshop was clearly very important, as it would set the tone for marketing subsequent programs. As a two day commitment, it asked for a substantial investment of time by the farmers.



Plates 4.3 and 4.4: Focus group sessions

The program design was intended to address the issues of participant motivation as well as delivering appropriate health education and data collection. At the outset of each program the facilitators had to ensure all the appropriate paperwork had been returned by participants. Participants were provided with a unique four digit identification code. The initial reception involved allocation of relevant paperwork and allocating a code to de-identify the participant for statistical purposes; these codes were used subsequently for all research data collection exercises, and for recording and analysis of data. Personal health records were kept in a WDHS medical record subject to the normal conventions for privacy and confidentiality.

Participants were taken individually for a brief physical assessment where standard measurements and blood sampling were captured and noted in the participant's health record. Participants were then given a brief interpretation of their results and a booking for a full 30 minute assessment was made so as to complete the physical assessment in private, typically at the end of the first day of the workshop. Following the initial assessment all participants were offered breakfast and given the opportunity to complete the pre-workshop knowledge questionnaire.

The first session was a structured focus group session (Plates 4.3 and 4.4) where they were asked to reflect on the reason they were here and what they hoped to get out of the program. Data was collected at this point in the way of comments and reflective thoughts of participants to aid in the collation of data on the motivation of farming families to attend to family health issues. This served also as the 'ice breaker', leading into the more formal educative sessions which constituted the major part of the workshop. These are detailed below.

State of rural health

The 'State of Rural Health' is the first topic opening up discussion on the relative health status of rural versus metropolitan populations. Table group discussions aided in the reflection and review of what participants think is the state of rural health. At times this session was a little confronting, as many farmers believed they did have a better health status than metropolitan populations. However, many issues such as stoicism, long working hours, and poor physical resources emerged in the table group discussions, leading to vigorous debate about how to improve rural health. This session is a very good beginning to the workshop program as it generates educational and thought provoking discussions that participants had not expected.

Cardiovascular disease ‘Getting to the heart of things’

This session is designed to give participants the facts regarding one of the biggest killers of men and women in Australia. The session design gives the participants an initial opportunity to share what they know about heart disease, and then to discuss this more fully in their table groups, after they have been presented with the facts. Video support is used, and models are shared to support the delivery of content highlighting the biology, prevention and treatment phases of heart disease. Each session always concluded with participants considering questions about what this means for themselves, their families and their farms.



Plate 4.5: What is this for? Looking down a colonoscope

implies for farmers as employers and the responsibility of employees. It is scheduled late on the first day to allow time for the participants to gain confidence in the presenters before they are asked to tackle the safety issues of real concern on their farm.

This session is very confronting. It uses pictures of people who have suffered injuries on farms and discusses the impact that this has on children and family members. Table group discussion is intense and this session provides a real awakening for many farming family units. Each session concludes, again, with questions about what it means for them, their family (and in this case employees and visitors) and for their farm. How can farm accidents and injury be prevented? If they occur, how do you, or would you, access rehabilitation and what is reasonable compensation?



Plate 4.6: Men learning how to undertake breast examinations during ‘gender bender’ sessions

Cancer ‘You can beat it’

This session begins with reflection on what the participants currently understand about the cause of cancer followed by a presentation on current research and its implications, especially as it relates to farming families. Once again videos, graphic displays and education materials are used to support the learning (Plate 4.5). Participants are encouraged to document relevant issues in their Resource Manual and reflect on these within their table groups.

Farm health and safety ‘Where you live and play’

This session discusses the risks and attitudes associated with farm life and the hazards encountered on many family farms. It explores the responsibility that this

Gender benders

The gender benders topics were an integral part of the program with a particular focus on the issues in health that relate to each sex. Men and women are different and the gender sessions were purposely delivered in single sex sessions to aid the facilitation of the education process. The discussion of topics within these sessions aimed to inform and empower individuals to become more aware of health issues that affect their gender, in an environment that was less threatening than it would have been if discussed in front of the other sex (Plate 4.6).

Women’s session

The focus within the women’s session included:

- breast health and the issues relating to breast cancer detection and treatment
- continence and the health of the pelvic floor and urinary system

- the role of preventative screening for cervical cancer through PAP smears
- menopause, including discussion on attitudes toward same.

Men's session

The focus within the men's session included:

- the problem with men and why men consistently suffer poor health outcomes
- prostate problems including prostatitis, benign prostatic hypertrophy and prostate cancer
- erectile dysfunction, including discussion on incidence, treatment and prevention.

An interesting outcome from these sessions in the first year was that all participants indicated that information about the other sex would be beneficial; as such, they requested that the sessions be swapped for the other sex within the structure of the second year workshop.

Nutrition and diet

Nutrition and diet was incorporated into the year one program because it has such a prominent impact in the other disease processes such as heart disease and cancer. The focus on nutrition was to develop capacity amongst participants to understand the facts about diet and nutrition. Participants were informed about the recommended nutrition levels of fat and fibre within the diet along with information about food claims and the use of these in marketing food products.



Plates 4.7 and 4.8: Food label reading and part of the supermarket tours in each location

Participants were taken to a supermarket (Plates 4.7 and 4.8) and asked to assess the nutritional value of the common food products they consumed within their home setting. This process allowed for practical education on the value of food products and the possibility of education relating to a better choice of products.

Stress and relaxation

The topic of stress and stress management focuses on the common issues relating to daily farming activity and the stressors that influence farming family lives. The aim of this session is to highlight the issues relating to stress and how we can better identify and manage this in our lives. The session particularly focuses on signs and symptoms frequently experienced when suffering from stress and how the body exhibits these symptoms.

Practical exercises included a deep breathing exercise and a short meditation. These are performed by all participants and other strategies that might assist in the early recognition and management of stress are also discussed (for example physical activity, planned holidays).

Action planning

The action planning process was one of the most important parts of the program and a session introducing this completed the first year of the program. Throughout the first two days, there was frequent opportunity for reflection on the topics that were presented, and on how these related to the participants' family business. This reflection process encouraged participants to identify ways and means by which the new information could be used to improve the health of the individual, family or farm. During the final session of the first year workshop, participants were encouraged to think about the information presented and to choose three actions related to this information that they would like to address over the next twelve months.

All participants are sent a reminder form six weeks following the two day program. They were asked to complete the form, outlining their 'action plan', and to return it to the researchers. At the start of the second workshop, approximately twelve months later, the action plans were revisited and participants were required to present to the group their actions and a rating of how they went in achieving these actions. The return rates for these were very high.

The Resource Manual

A Resource Manual was developed by a working group with expertise in adult learning, health promotion, social science, rural health and farming expertise consisting of representatives from the organisations in the partnership. Initially, 25 manuals were developed as a pilot. Following feedback from the first workshop conducted in Benalla in November 2003, adjustments were made before the second group met in Horsham in February 2004.

The Resource Manuals were presented in 2-ring A4 folders, tabbed, indexed, with a small number of colour plates and references. This approach offered a simple means of adding additional chapters in Years 2 and 3 as shown in Table 4.1.

Table 4.1: Resource Manual chapters included over life of the SFF project

Resource Manual chapters	Year 1	Year 2	Year 3
Introduction	✓		
1. Rural Health	✓		
2. Getting to the heart of things	✓		
3. Cancer	✓		
4. Farm Health and Safety	✓		
5. You are what you eat (Diet and Nutrition)	✓		
6. Stress Less	✓		
7. *Men's Health	✓	✓	
8. *Women's Health	✓	✓	
9. Mental Health		✓	
10. Diabetes, Physical Activity			✓

* Chapters used in year 2 when gender sessions swapped

During each workshop, an evaluation was undertaken of each session as well as the program overall to identify areas of improvement. This evaluation process has continued throughout the life of the program and adjustments have been made to subsequent programs. The final version of the Manual from the SFF program was the foundation for the Victorian Sustainable Dairy Farm Families Program.

In the first year, additional information from the Cancer Council, Worksafe, Primary Mental Health Team, National Heart Foundation, National Continence Foundation, Pap screen and Breast screen was provided in the manual, with an additional ten or so brochures, in a plastic envelope at the end of the SFF resource manual. After feedback in the second workshop, it became apparent that participants did not use the additional information and it was removed.

Each chapter followed the format of:

- A. Introduction to topic
- B. The Facts
- C. Taking control

In addition, each chapter included sections where participants could write their thoughts and make notes on their assessment about their own risks, opportunities for change and action planning. The chapters were formatted following the workshop program with active learning logs throughout the manual.

For example, the chapter on 'cancer' had the following sections:

- A. Introduction to topic and discussion
In your table groups discuss: What do you believe are the major cancers affecting males and females in rural Australia?
Write them in your resource kit.
- B. The Facts
Information about risk factors, types of commonly occurring cancers in rural populations
- C. Taking control
In your table groups discuss: In what ways can farming families reduce the risk factors for cancer?
Write them in your resource kit.
For you own reference, identify your specific risks and way you can address or prevent them.

One-on-one physical assessment

One of the most successful facets of the project, and the most influential in gaining attendance, was the physical assessment process undertaken by all participants with a nurse educator (Plate 4.9). Further exploration of this through focus group discussions found that a similar proportion of individuals felt that a full and detailed physical assessment was one thing that their health service failed to deliver. The rationale for the one-on-one assessment during the SFF program is that knowing and understanding their relevant risks empowers people to change lifestyle and risk behaviours, and to seek treatment and intervention. Many of the participants felt that they were not fully aware of the implications of their personal results.

The physical assessment process began with an initial screening of participants on their arrival; they had been asked to fast for a minimum of ten hours to aid in the accuracy of the testing procedures. All the physical assessment testing equipment was internally quality tested with regular control testing and calibration procedures undertaken prior to each workshop. All participants were also re-measured each year with the same equipment to limit measurement inaccuracies. The initial screening included the following privately recorded tests:

- fasting total cholesterol and blood sugar using Accutrend and Medisense calibrated meters
- weight and height measurement
- body mass index
- body fat percentage using hand held Omron Bodylogic meters
- blood pressure and pulse
- waist-to-hip measurement using National Heart Foundation measurement guidelines.



Plate 4.9: Taking blood pressure as part of the physical assessment

This was a confidential process. The results were recorded in the participant's health record, and in the participant's resource manual for their own reference. Although confidential, most participants would openly share this data with their table group and friends with no fear of retribution.

The second step involved a full 30-minute physical assessment, mostly on the afternoon of the first day and in the morning of the second day of the program (or at the end of the day in Years 2 and

3). Bookings were made prior to their breakfast on Day 1 of the program.

Specific topics and discussions undertaken in this assessment process included:

- evaluation and discussion of initial physical assessment results
- allergies and current medications
- familial history and incidence of disease
- neurological assessment
- skin assessment
- cardiovascular assessment
- respiratory assessment
- gastrointestinal assessment and risk for upper and lower GI disorders
- urological assessment for relevant risk and disorders
- sexual history and assessment for disorders
- social history.

The 30-minute assessment was undertaken in a private room and findings were recorded in the health record collated for each participant. Extensive discussions with each participant were made regarding the results and any need that might have arisen for referral to other allied and medical practitioners. Under ethical guidelines a full referral was made using relevant documented health information to each participant's chosen general practitioner or designated health professional. All participants who required referral for health indicators outside the ethically approved levels were sent a copy of the referral letter to reinforce the need for follow-up and to empower individuals to address the health indicator with relevant health professionals.

Year 2 program

The second workshop (held approximately twelve months after the first) was designed as a one-day workshop that would gather more health measurements, reinforce the health learnings from the first workshop, and introduce new information adding to the emphasis on personal responsibility for action. As with the first workshop program, it began with a repeat of the fasting blood tests and the initial physical assessment. Again, these readings were recorded in both the participants' medical record and in their resource manual. A repeat of the one-on-one physical assessment was undertaken at the conclusion of the day.

Action plan reports (through focus group discussion)

Participants began the Year 2 workshop with discussions on their learning from the program and how it had influenced their farming family lives over the past twelve months. Participants were asked to share the action plans which they had developed after the first workshop in their table groups, and then to present this to the whole group. They were asked to rate their results using the 'Martin' scale of achievement (see Appendix 12). This part of the discussion was always interesting, as it generated humour, some poignant moments, and people were always very supportive of each other.

Revisit Year 1 learnings

To assist participants in re-focusing their thoughts on the first workshop, held twelve months earlier, the first session revisited the learnings briefly from that first workshop. Participants were also given a brief overview of the topics covered and the key learnings that were discussed at that time.

Mental health

Discussions and feedback from participants in Year 1 indicated a particular need for further information on mental health and well-being, anxiety and depression and to build on the learnings from the Year 1 stress session. As a result, anxiety and depression was included in the second year's workshop and, with assistance from the Primary Mental Health Team based in south-west Victoria, an additional chapter written for the SFF resource manual. The issue of mental health was rated as a low priority by male participants in the Year 1 survey, yet during focus group discussions in the Year 1 workshop an overwhelming number of participants recognised that mental health was indeed a problem experienced by farming families.

The presentation on mental health covered the signs and symptoms experienced by people with anxiety and depression and the workshop discussed how these can influence farming family life. Strategies for preventing and managing these issues, such as cognitive behaviour therapy, were discussed with the group. Issues relating to suicide and its prevention were discussed also.

Gender topics reversed

Following feedback from participants, the gender specific topics were offered again in the second year. However, this time, the session on female health was presented to the men, and vice versa. These sessions were presented in the same format as in Year 1 with a female presenter discussing female topics and a male presenter presenting male topics. Participant gender balance remained the same during the program (Plate 4.10).



Plate 4.10: Throughout the SFF program 54 per cent of participants were men and 46 per cent were women

Action planning

The final session for Year 2 included action planning for the next twelve months. Information from Year 2 was discussed and the participants were encouraged to focus on their action plans for the following twelve months.

Year 3 program

As with the first two workshops, when the participants arrive, data on their fasting blood samples are collected, and the initial physical assessments performed. This assessment process allows participants to review and assess their physical health status over the three years of the program, and to have a better understanding of the status of their health over time.

Action plan reports (through focus group discussion)

Participants begin the Year 3 workshop with discussion of their learning from the previous two workshops of the program, and how it may have influenced their farming family lives over the past twelve months in particular. Participants are given the opportunity to discuss the progress on their action plans in their table groups, to share their plans and results with the whole group, and to rate their results using the same scale of achievement that was used in the second workshop. These sessions required substantial trust amongst participants, and were an important means of reinforcing many of the key themes of the workshop. Feedback was amusing at times, and also confronting when people shared significant incidents or learnings with each other.

Revisit Year 1 and Year 2 learnings

To assist participants in refocusing their thoughts from the first two workshops, the first presentation briefly revisits the key learnings from Years 1 and 2.

Diabetes

The topic of diabetes is a unique and important topic with particular relevance to farming families and the general population. With the incidence of diabetes increasing, and especially given the number of people with undiagnosed diabetes, this topic was particularly relevant to the participants. Information was provided on the signs and symptoms of diabetes, how to prevent it, and to manage it. Participants were reminded about the nutritional issues, and the importance of genetic influence in relation to this disease.

Physical activity

Physical activity was discussed in the third workshop to empower participants to think of ways to manage and prevent many of the lifestyle related diseases. Participants were sent a pedometer several weeks prior to the third year workshop and were requested to measure the amount of steps taken over a week and record this. This data was shared and discussed following the presentation on physical activity, together with a reflection on the opportunities which farming activities provide for physical activity. Particular attention was given to the value of different forms of exercise, and the benefits to the body including strength, flexibility and endurance.

Business decision-making

Participants were asked to complete a survey prior to the workshop on their perceptions of the relationship between health and farming business decision-making, and the different kinds of changes that they had made to their farm management practices, as a consequence of this project. This session was an opportunity for sharing the data from these surveys, and for exploring its meaning and its implications for further action.

Evaluation of the program

Program (process) evaluation was undertaken with every workshop and the program was modified in line with this feedback. In the early workshops, key areas of modification were in:

- improving the provision of pre-program information
- meeting the request for the gender topics to be made available to the other sex
- providing more information on mental health.

The manual was also evaluated following each workshop and adjusted accordingly.

Pre and post knowledge

The pre and post session questionnaire was used to evaluate the knowledge of all participants at the beginning of each workshop. Questions were asked about their basic understanding of disease processes, risk factors, rural health facts and lifestyle questions. Following the two days of workshop presentations and discussions in the first program the participants were asked to complete the questionnaire again, to assess the gains in their level of understanding and knowledge. Modified questionnaires were repeated at the start and end of subsequent workshops in Years 2 and 3 to assess the retention of knowledge and their pre-knowledge in relation to the new topics that were to be introduced in the specific workshop program.

Testing the change in knowledge of the participants was assessed by fitting a generalised linear model with binomial distribution and logit link (see Appendix 2). Where this method failed to predict a result (converge), Fisher's exact test was then used. All statistical analyses were performed using GenStat® (GenStat Committee 2003).

Steering group development

The Sustainable Farm Families steering group was formed with the aim of assisting in the direction and provision of support for the project (Plate 4.11). Designated representatives from across the partner organisations, industry, health and academia were invited to be involved in the steering group (see the terms of reference in Appendix 1). All members had equal rights in the steering group and were encouraged to share their views, critical or otherwise, on project management, its rollout and service provision. The steering group met on a quarterly basis rotating between Hamilton and Melbourne to share the travelling and as the majority of steering group members originally lived in Hamilton. It was also seen as important to support rural communities as part of the SFF philosophy. Interestingly as the project progressed several of the original members moved to other parts of regional Victoria and it became more practical to hold these meetings in Melbourne. SFF steering groups are still held in Hamilton but less commonly than intended originally.



Plate 4.11: The first steering group meeting, Victorian Farmers Federation, Melbourne (Back left Warren Straw, Neale Price, Delwyn Seebeck, Roslyn Prinsley, Susan Brumby, John Marriot and Stuart Willder; front left, Susan Leahy, Victoria Mack and Professor John Martin)

Key discussion topics in the steering group meetings included:

- budget analysis (WDHS Finance Manager would attend half yearly to answer any queries regarding financial management and to deliver a financial report)
- program rollout
- key results
- recruitment
- training and development
- future development and linkage with other key industries
- grant applications.

Steering group members were encouraged to participate in the programs, with a view to increasing understanding of the role of industry and health cross-collaboration. This move has assisted in the further rollout of programs across other industry sectors. The steering group has been instrumental in the further development of the project into other

agricultural industries throughout Australia, giving the SFF project a comprehensive, national reputation as an innovative program.

In May 2005 the steering group undertook a strategic planning workshop to identify the scope and key messages the members of the group thought were important to further develop the SFF program. The schema setting out the critical success factors, impediments and strategies for overcoming these impediments is shown below in Figure 4.1.

Figure 4.1: Key messages – ‘Taking SFF further’ (May 2005)



Conclusion

This chapter has reported on the process adopted to develop and to govern the implementation of the SFF project. Comprehensive research has been undertaken on both theoretical issues, and on health issues themselves, to ensure that a workshop program (Plate 4.12) has been designed and delivered in accord with the program objectives.



Plate 4.12: Farming families engaged in a presentation and discussion on the state of rural health and its causes

In summary, the chapter demonstrates the following key learnings and principles:

- The program has been developed through a strong partnership with key industry, health and education organisations. This marshalling of key expertise has been central to the effectiveness of the program, and to attracting and retaining participants
- Considerable care has been taken in program design, so as to maximise the quality of the program content, and of the pedagogy with which it has been delivered
- A significant investment has been made in data collection, both in relation to the key research questions on farm families' health and associated issues, and to the health data from the perspective of the participants.

5. Objective 2: Identify and track farming family health indicators

In total, 128 participants (70 men and 58 women) began the Sustainable Farm Families program, spread across six programs in five separate sites. Ninety-eight participated in all three years of the workshop which constitutes the final report data analysis. Participants were self-selecting and needed to be between 18 and 75 years and to have been farming for more than five years.



Plate 5.1: Undertaking physical assessment

Over the three years, a substantial amount of data was collected on a range of personal (Plate 5.1), farm and program evaluation indicators. One of the remarkable aspects of the project has been the relatively high retention of participants, and their willing response to surveys and other forms of data collection between the annual workshops. However, analysis of the data has not been without challenges: what particular framing provides the best option for examining the data, and determining the most useful insights into the various aspects of farm families' health, and for recommending appropriate policy and programmatic initiatives?

A summary of the economic evaluation of the program that was commissioned separately by RIRDC (Boymal et al. 2007) is included also. The report also identifies some of the new research questions that have emerged during the course of the program.

The purpose of this chapter is to present the results on farm families' health indicators. This data was observed as an integral part of the program; participants regularly compared their own data within social networks. Participants also found the de-identified presentation of group data given to each group at the conclusion of each year to be valuable in assessing a snapshot picture of their industries' health. This part of the research was important in providing Farm Management 500 with evidence to support the development of a set of indicators which could be incorporated in their benchmarking program.

Retention rates over the SFF program

The project was successful in retaining the involvement of participants, given the challenges and unpredictable demands of farming. Project demands were high, and participants were required to give up a total of four full days, plus travel time, and to complete a number of surveys between workshops. Apart from the perceived value of the program itself, retention was supported by the active role which WDHS played in contacting participants to follow up on missing information, and in providing information through newsletters and over time, a website (www.sustainablefarmfamilies.org.au). It helped also that most participants were involved in an ongoing way with Farm Management 500. Attendance over the life of the SFF program is set out in Table 5.1.

Table 5.1: Participant attendance at the three SFF workshops

Baseline 2004	Year 2 2005	Year 3 2006	Completed all three workshops
128	115 (89%)	104 (81%)	*97 (76%)

*Full self-reported data, physical assessments and attendance at all three workshops

There are varying sample sizes for data as some participants returned paper work for all three years but may have missed a workshop.

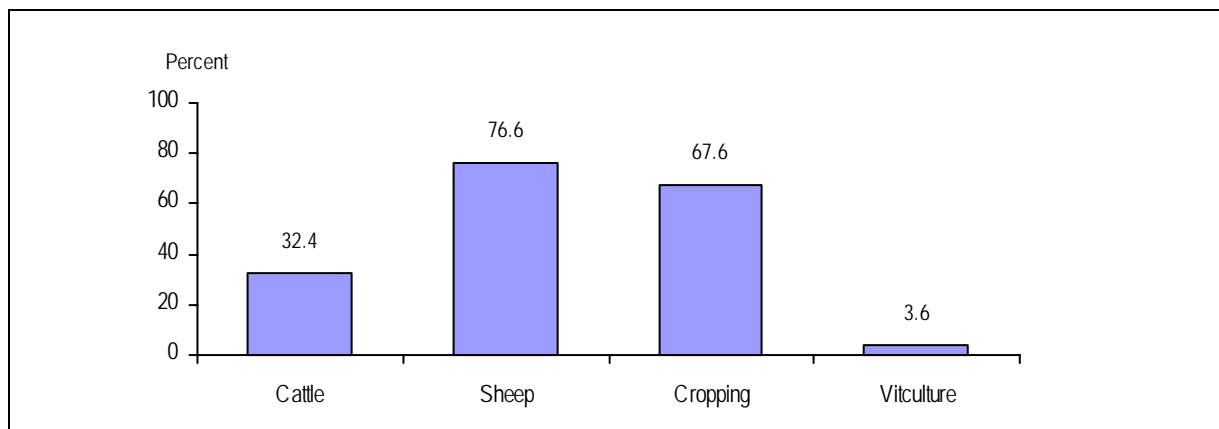
Health of farm families



Plate 5.2: Participant family at the SFF project

The participants came from broad acre farms, many of which were mixed farming operations including two or three differing enterprises (Figure 5.1). Farm survey data was used to form an overall picture of the characteristics of the participants (Plate 5.2).

Figure 5.1: Type of agriculture undertaken by SFF participants



Data was collected annually on key personal health indicators including weight, waist and hip measures, body mass index, waist-to-hip ratio, fasting blood sugar and cholesterol levels and blood pressure (Table 5.2).

Table 5.2: Average baseline characteristics of SFF participants

Variable	Number of participants (n = 128)	Percentage of participants
Male	69	54%
Female	59	46%
Born in Australia	121	95%
Current smoker	5	4%
Previous smoker	28	22%
	Mean	Standard deviation
Age	47	8.79
Body mass index (kg/m ²)	26.06	3.44
Total cholesterol (mmol/L)	5.49	1.10
Waist circumference (cm)	91.18	10.79
Waist-to-hip ratio	0.89	0.09
Blood sugar level	4.88	0.63
Blood pressure (systolic) (mm Hg)	126.28	15.13
Blood pressure (diastolic) (mm Hg)	79.34	9.08
Pulse rate	72.89	9.26

These measures indicated that the aggregate health status of the broad acre farmer participants was poorer than they perceived for themselves. For example, 94 per cent of women and 89 per cent of men reported themselves to be in 'Good' to 'Excellent' health (Table 5.3).

Table 5.3: Self-assessed health status of SFF participants year 1, compared with Australia

	Broad acre farmers ^a			All Australia ^b	
Self-assessed health status	Females	Males		Females	Males
Excellent/Very Good	47.15%	46.6%		59.8%	58.6%
Good	47.15%	43.1%		24.4%	25.4%
Fair/Poor	5.7%	10.3%		15.8%	16.0%

Notes: ^a For SFF broad acre farmers: data includes 19 years or over only. ^b For all Australia: data includes 18 years or over only. (Source: 'General Social Survey 2002, Australia' (Cat. No. 4159.0.55.006) ABS)

Interestingly, significantly fewer farm families reported that their health was either 'Excellent/Very Good' or 'Fair/Poor' than had been found in a national population sample in 2002. Almost half of the SFF participants rated themselves as being in 'Good' health, suggesting a relatively general set of expectations.

Yet, amongst the SFF participants, a pattern of significant risk emerged. The numbers of participants at risk in terms of particular clinical indicators are shown in Table 5.4. These are indicators that are used for determine risk for diseases such as cardiovascular disease and diabetes.

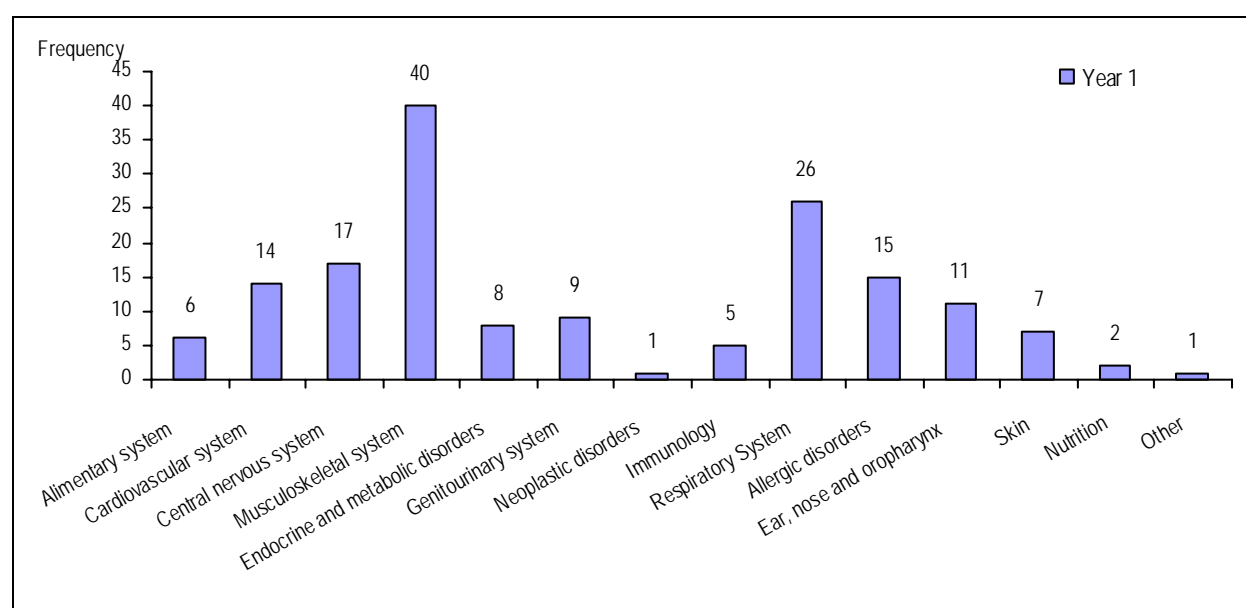
Table 5.4: Participants at risk in base year in terms of particular clinical indicators

Clinical Indicator	Number of participants in base year
Body mass index ≥ 25	67
Total cholesterol level ≥ 5.5 mmol/L	45
Total cholesterol level ≥ 4.5 mmol/L	80
Total Blood sugar level ≥ 5.5 mmol/L	13
Waist-to-hip ratio Men > 0.90 Women > 0.80	70
Waist circumference Women > 88 cm Men > 102 cm	30
Blood pressure (systolic) (mm Hg) ≥ 140	26

Farmers' perceptions of own health conditions

Before the first workshop, the participants were asked to report on specific health conditions which they might have experienced. There were a broad range of conditions reported, although musculoskeletal and respiratory conditions were clearly the most common as illustrate in Figure 5.2.

Figure 5.2: Distribution of self-reported health conditions



A proportion of farmers reported a 'Moderate' to 'Severe' incidence of pain (30 per cent) (Table 5.5) while 37 per cent said their health interfered with their normal activities, even though 89-93 per cent had reported that their health was 'Good' to 'Excellent'. This suggests that farmers accept that pain is a normal part of their existence. In addition 43 per cent of men reported symptoms of incontinence.

Table 5.5: Baseline distribution of degree of bodily pain by gender

How much bodily pain during the past 4 weeks	Broad acre farmers ^a	
	Females	Males
None	39.7%	22.9%
Very Mild	44.8%	47.1%
Moderate	12.1%	27.1%
Severe/very severe	3.4%	2.8%

Note: ^a For broad acre farmers: data includes 19 years or over only

Alcohol and smoking

Alcohol consumption was high for both men and women with only 7.1 per cent of males and 10.3 per cent of females never having a drink containing alcohol (Table 5.6). Interestingly drinking at a risky level (as identified by the National Health Medical Research Council (2001) which was more than 6 standard drinks for men and more than 4 standards drinks for women in a drinking occasion) was 54 per cent for men and 22 per cent for women.

Table 5.6: Baseline distribution of drinking patterns by gender

	Broad acre farmers ^a	
	Females	Males
Never have a drink containing alcohol	10.35%	7.1%
Drinking monthly	24.15%	7.1%
Drinking weekly	17.2%	25.7%
Drinking more than twice a week	51.2%	60%

Note: ^a For broad acre farmers: data includes 19 years or over only

Respiratory and smoking health

The rate per capita of respiratory symptoms was significant, but this did not appear to be related to smoking as illustrated in Table 5.7.

Table 5.7: Baseline distribution of smoking status by gender

Smoking status	Broad acre farmers ^a		All Australia ^b	
	Females	Males	Females	Males
Never smoked	75.9%	72.9%	56.4%	44.7%
Has quit smoking	22.4%	21.4%	22.9%	29.6%
Smoking daily	1.7%	5.7%	18%	21.1%

Notes: ^a For SFF broad acre farmers: data includes 19 years or over only. ^b For all Australia: data includes 18 years or over only. (Source: 'General Social Survey 2002, Australia' (Cat. No. 4159.0.55.006) ABS)

As noted above, rates of smoking were substantially below the Australian average yet 26 participants reported that they had respiratory conditions. Some of these indicated that they were 'seasonal' or related to particular farming activities such as handling grain, working in sheep yards, mustering and dust. This level of incidence supports the findings of Reed & Quartararo (2006), and may be an area worthy of further investigation.

Referrals

Following the baseline workshop, 61 per cent of males were referred on to health professionals for further assessment as were 70 per cent of females. Health professionals were general practitioners, dieticians, counsellors, naturopaths. Eight per cent refused referral

Referral needs varied amongst the participants and within regions. This was also contributed to availability of both allied health services and medical services. Referral indicators were linked to ethics guidelines and thus many of the referrals were made to general practitioners for issues such as elevated cholesterol and blood glucose readings.

Other referral needs in the baseline year included cardiovascular risk factors (25 per cent), obesity (16 per cent), skin conditions or lesions (17 per cent), sexual reproductive issues (8.4 per cent) and elevated blood sugars (5.0 per cent). Some people were referred for more than one reason and may have received referrals to more than one health professional.

Most participants received a copy of their referrals which were sent to the health professional of their choice. This proved to be a very important aspect of the program, as it became apparent in subsequent workshops that many of these referrals had led to diagnoses of early cancer, referral for specialist advice, surgical interventions and initiation or change of medication.

Changes in health indicators over the three years

The emphasis on systematic collection of health data enabled careful monitoring of changes in health status in relation to the key health indicators. While this data was, in one sense, an important source of insight into the effectiveness of the SFF itself, it was important also in terms of providing insights into the capacity for this kind of health education to make a constructive intervention into improving the health of farm families.

Between the first and second set of measurements, there was significant improvement, in all of the key indicators other than diastolic blood pressure and blood glucose level (Table 5.8). Decreases for blood glucose readings from baseline (year1) to year two were not significant, however an increase from baseline to year three is noted. Interpretation of this result is supported by the AIHW 2002 that blood glucose levels increase with age and is reflected in the increasing rates of type 2 diabetes in the Australian population.

The rate of improvement was not so clear from the second to the third set of measurements, but the overall trend was still positive.

Table 5.8: Mean change in clinical parameters and risk parameters from baseline (Year 1) to Year 2 and Year 3 for all participants

	Change from baseline (Year 1) to	
	Year 2	Year 3
	Mean (\pm Standard Error)	Mean (\pm Standard Error)
All participants (n =97)¹		
Body mass index (kg/m ²)	- 0.25 (0.10) *	- 0.27 (0.13) *
Total cholesterol level (mmol/L)	- 0.43 (0.10) ***	- 0.70 (0.09) ***
Waist circumference (cm)	- 1.16 (0.40) ***	- 1.59 (0.39) ***
Waist-to-hip ratio	- 0.01 (0.00) ***	- 0.01 (0.00) ***
Blood sugar level	- 0.06 (0.06)	0.09 (0.06)
Blood pressure (systolic) (mm Hg)	- 2.722 (1.07) *	-3.39 (1.23) **
Blood pressure (diastolic) (mm Hg)	0.92 (0.77)	0.82 (0.83)
Pulse rate	- 0.58 (0.86)	- 0.41 (0.90)

Significance values *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$. Based on two-tailed significance tests. (Source: Boymal et al. 2007)

The significant implication is that changes were achieved in those clinical indicators which relate in particular to cardiovascular disease, diabetes, hypertension, coronary heart disease and syndrome X. Whilst these changes have been reported at the aggregate level, across all of the groups that completed the three years, it is even more interesting to consider those participants that were considered to be at risk during the initial assessments (Table 5.9).

¹ All participants refer to those 97 for whom data were available in each year.

Table 5.9: Mean change in clinical parameters and risk parameters from baseline (Year 1) to Year 2 and Year 3 for those at risk (Source: Boymal et al. 2007)

	Change from baseline (Year 1) to	
	Year 2	Year 3
	Mean (\pm Standard Error)	Mean (\pm Standard Error)
Participants at risk in base year		
Body mass index ≥ 25 (n =67)	- 0.42 (0.13) **	- 0.44 (0.16) **
Total cholesterol level ≥ 5.5 mmol/L (n =45)	- 0.91 (0.13) ***	- 1.26 (0.12) ***
Total cholesterol level ≥ 4.5 mmol/L (n =80)	- 0.59 (0.1) ***	- 0.92 (0.09) ***
Total Blood sugar level ≥ 5.5 mmol/L (n =13)	- 0.62 (0.13) ***	- 0.56 (0.15) **
Waist-to-hip ratio Men > 0.90 Women > 0.80 (n = 70)	- 0.015 (0.00) ***	- 0.016 (0.00) ***
Waist circumference Women > 88 cm Men > 102 cm (n = 30)	-3.50 (0.81) ***	-3.17 (0.69) ***
Blood pressure (systolic) (mm Hg) ≥ 140 (n =26)	-10.38 (1.44) ***	- 12.5 (1.91) ***

Significance values *** $p \leq 0.001$, ** $p \leq 0.01$, * $p \leq 0.05$. Based on two-tailed significance tests.

The statistical tests indicate that the gains on these indicators were significant. It would appear that providing participants with a combination of detailed information on their own health status, together with health education in a supportive and sustained environment (over three years) has established the conditions under which people can make significant improvements to their health status.

Farm health and safety

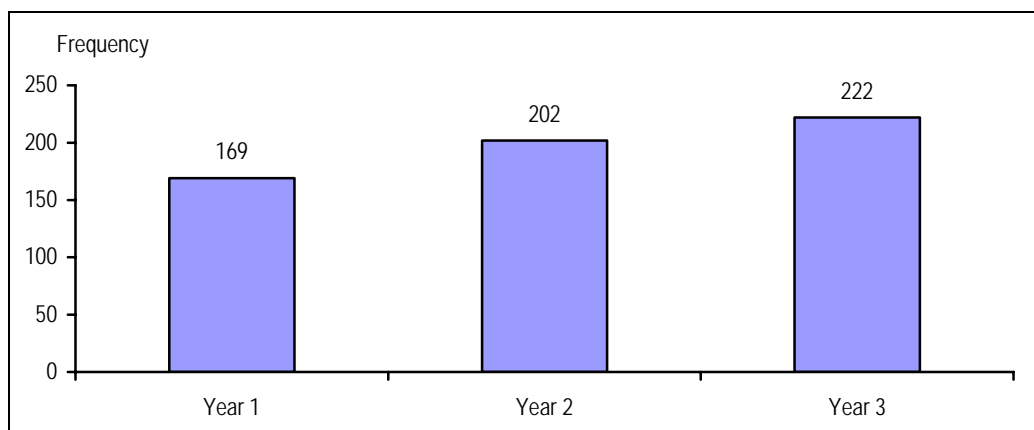
The issue of the occupational health aspects of farming was addressed through a Farm Health and Safety survey (see Appendix 8). The initial version of the survey was developed for the project, and refined over the three years with assistance from the Australian Centre for Agricultural Health and Safety based at Moree. Farm injury data was not collected in the first year, although data was collected on type of industry, history of use of sun protection, personal protective equipment (PPE) and the extent of farm injury. In the final year, the questionnaire included a question relating to the wearing of motor bike helmets.

Personal protective equipment

One research objective included understanding whether any changes had occurred in the use of PPE when using workshop or outdoor equipment after participating in the SFF project. It was common for women to indicate that they did not use farm equipment, ride motorbikes, use tractors or other such implements. However, most indicated they would help to hold an implement or item, if they were requested to. The type of protective gear that might be used included: goggles/safety glasses, ear muffs, gloves, helmets, high visibility jacket, welding shield, dust mask, safety boots, respirator or leather aprons. One hundred and eleven participants completed Year 1 to Year 3 surveys and 65.8 per cent of participants wore some form of protection in Year 1, 76.6 per cent of participants wore some in Year 2 and 89.2 per cent of participants wore some in Year 3. Whilst there was an increase in the number of people wearing PPE the number of

items worn remained stable between two and three items (Figure 5.3). Items listed included: safety glasses, ear muffs, gloves, high visibility jacket, welding shield, dust masks, safety boots, respirator and leather aprons.

Figure 5.3: Frequency of total protective items worn when operating outdoor machinery by the same 111 participants



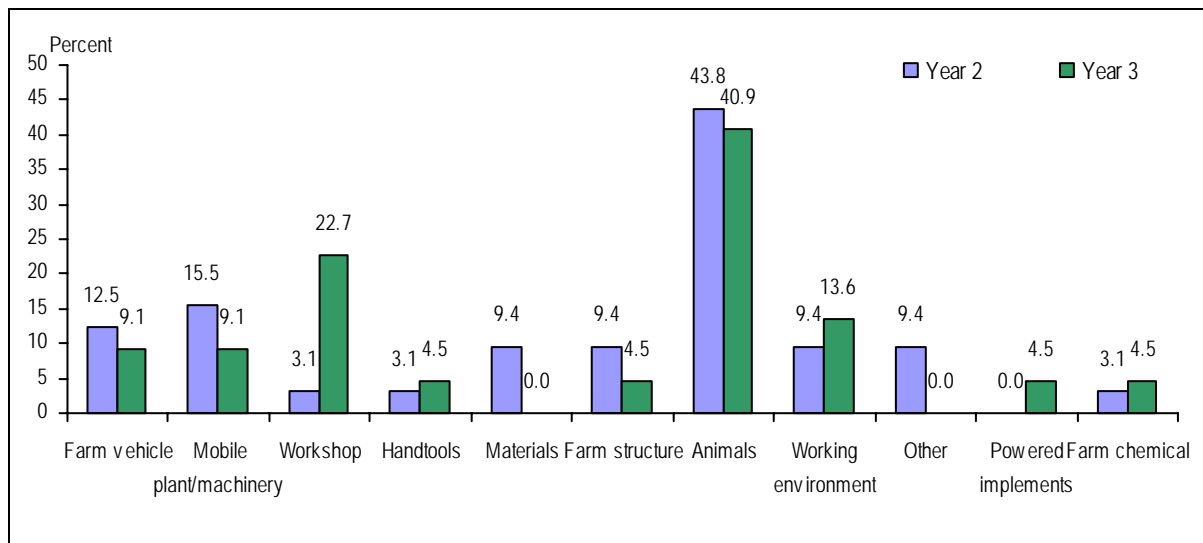
Farm injury



Plate 5.3: Looking at hand washing techniques to highlight how easy it is to bring bacteria and chemicals back into the home

In Years 2 and 3, participants were asked if they had incurred a farm injury in the previous 12 months and used the survey from the Australian Centre for Agricultural Health and Safety to assess this information. The link between personal hygiene and possible chemical contamination in the home was also addressed in the workshops (Plate 5.3). Animals were found to be the biggest cause of injury for farmers (Figure 5.4).

Figure 5.4: Causes of farm injury (From Year 2 and Year 3, n = 115)



Following increased reports of injury and death from all terrain vehicles (ATVs), a question was included in Year 3 to ascertain if people wore helmets when they rode on ATVs and motor bikes (Table 5.10).

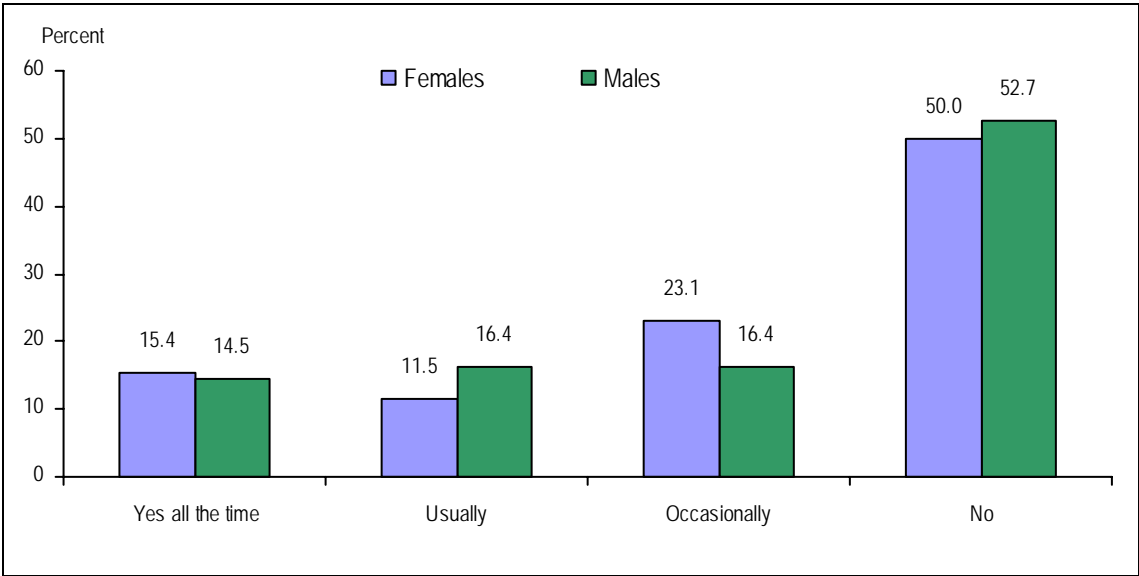
Table 5.10: Use of motorcycle helmet

Do you wear a motorcycle helmet?	Broad acre farmers ^a	
	Females n =51	Males n = 61
Yes all the time	7.8%	13.1%
Usually	5.9%	14.8%
Occasionally	11.8%	14.8%
No	25.5%	47.5%
Never ride or never a passenger	49%	9.8%

Note: ^a For broad acre farmers: data includes 19 years or over only

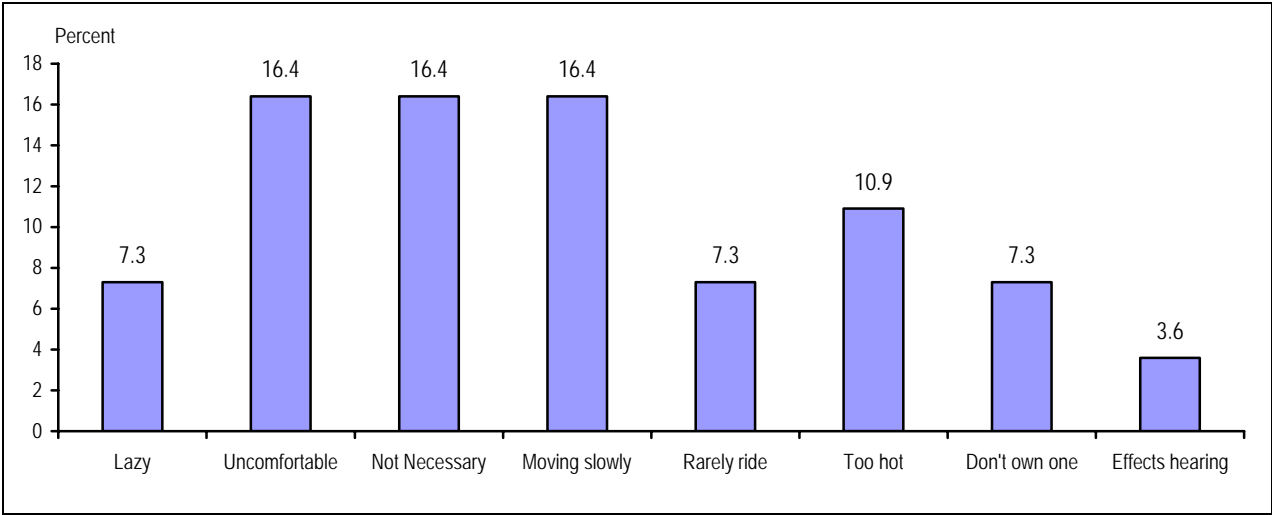
Further analysis reviewed the reasons why people wore helmets. There was little difference between the sexes in the percentages of those that ride motor bikes (Figure 5.5), although it is far less common for women to do so.

Figure 5.5: Distribution of helmet protection use for participants that indicated operating a motorcycle or ATV, by gender (Males n= 55; Females n = 26)



Those that did ride a motor bike or ATV were asked the reason for not wearing a helmet. Their responses are illustrated below in Figure 5.6.

Figure 5.6: Distribution of top 8 reasons for not wearing a helmet whilst operating a motorcycle or ATV.



These issues were discussed extensively in focus groups in both the second and third workshops. There was much discussion about the heaviness of helmets and getting hot, with some mention of lack of sun protection and the affecting of peripheral vision and hearing.

Farming family action planning

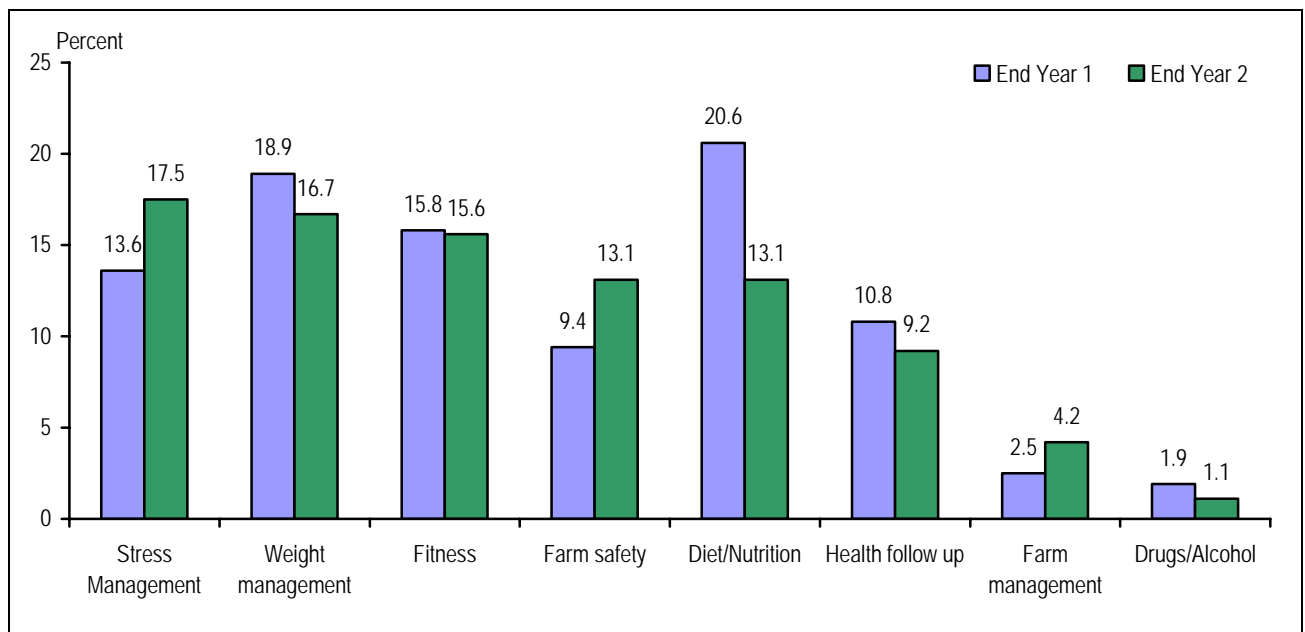
As indicated in the outline of the overall program in the previous chapter, ‘action plans’ were an important part of the program (see Appendix 11). Following the first workshop, participants were requested to write up to three specific actions of their choice to work on for the following twelve months and to report back the following year. In Year 1, 124 out of 128 participants submitted action plans. This gave rise to 372 action targets, which is an average of three per person. Of these 124, 120 submitted action plans again after

Year 2. This gave rise to 360 action plan targets, again an average of three per person. Following the Year 2 workshops, participants again developed action plans for the next twelve months, to report on at the Year 3 workshop.

At the start of the second and third year workshops, as part of the reporting process, participants were asked to rate their achievement on each action using the 'Martin scale' (Appendix 12) which linked actual behaviour and results (see also the section on action planning in Chapter 4).

Figure 5.7 highlights the participants' action plan choices. It can be seen that there are clear links with the clinical indicators, suggesting that the program has had a significant change. It also reflects the farmers' priorities. Men and women from the same farm could set different personal goals, adopt different actions and have different outcomes.

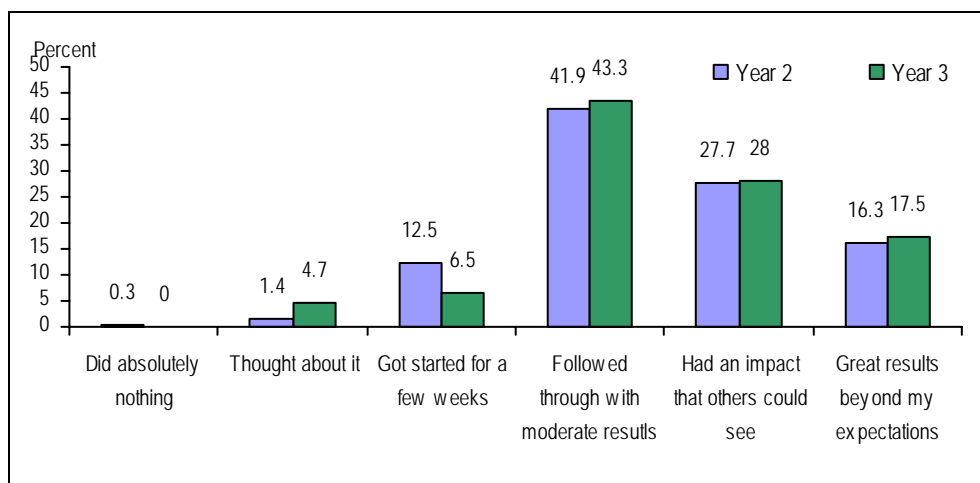
Figure 5.7: Distribution of participant action plan choices after Year 1 and Year 2 workshops (n = 102)



Note: data includes 19 years or over only

Figure 5.8 illustrates how participants rated their own achievements. One hundred and two participants gave a rating of their action plans in **both** Year 2 and Year 3.

Figure 5.8: Distribution of results for the action plan targets after Year 1 and after Year 2 (n = 102)



This result was particularly pleasing for the project and most participants spoke and reflected on their experiences and learning over the previous 12 months. Some of these included changes in diet, changes to children's lunch boxes, inclusion of more fibre in their diet, reduction of weight and increasing fitness. Ways to increase fitness included a variety of activities such as running to open gates and jogging through, walking around the farm, riding a bike and having family support to undertake this. Some participants used a circus act to help implement their action plans (Plate 5.4). One woman sourced additional funding to start a local group for mothers to stay fit and purchase equipment to do this. Others improved farm safety, which included suggestions such as building a chemical shed, undertaking a farm safety audit, wearing more sunscreen and improved orientation for employees. Many participants also planned and undertook holidays which they had not done in the previous few years.



Plate 5.4: Participants presenting an action plan to be more physically active via a circus act at the Victorian Institute of Dryland Agriculture (VIDA)

These results (Figure 5.8), in themselves, are very much the participants' own perceptions of how much they did, whereas the clinical data provides stronger evidence about the program's impact on clinical indicators. However, the significance of such positive perceptions – about people's capacity to change their lifestyles and to exercise choices which have important consequences for their health – should not be underestimated.

Formation of benchmarks

As indicated at the commencement of this chapter, one of the key objectives of the SFF project was to work on how best to integrate and encourage the adoption of Farm Family Health Benchmark indicators into ongoing group activities within Farm500. Currently Farm500 members provide financial and related benchmark data and report against themselves and their group. Part of the early vision for the SFF project was that health benchmarks would be included as part of Farm500 comparative activities, as a means of encouraging farmers to sustain ongoing improvement of their health and safety.

During the Year 3 workshops, many participants indicated a strong interest in continuing the annual assessments and reflection on the results. This led the project team to develop a list of possible benchmarks and to trial with the Swan Hill group during their Year 3 workshop. Following feedback and adjustment, this was repeated with the two Hamilton groups.

Farm500 was keen to see the benchmarks be sustained as a longitudinal process over seven years, and for the results to be represented as a report card summarising the health indicators and health drivers. The benchmarks were discussed with Dr Dale Ford of the Otway Division of General Practice, and some adjustments made. It was intended that the Farm500 group facilitator would set aside a specific session at their annual meeting to encourage all members to report back their personal health indicators and personal action plans. This would enable people to continue to draw on peer group pressure and to prompt members to get their health check ups.

The benchmarks were planned with three phases:

1. Health indicators: body mass index, waist circumference, fasting blood sugar, cholesterol, blood pressure
2. Health checks: the calendar of basic health checks; for example, eyes, dentists, pap smear, prostate, breast
3. Health drivers: the things that you can do for yourself; for example diet, exercise, holidays, injury prevention, sun protection.

When members have provided all the information, the Farm500 facilitator would enter it on computerised records. The results could then be displayed or printed with key analysis being represented as 'red, yellow or green' (stop, caution, go), providing participants with a very simple pointer towards those aspects of their health that required attention (See Appendix 14). Furthermore, the results could be incorporated into a group summary, and some form of group competition, with (anonymous) results at the annual Farm500 conference, used to stimulate action.

The data on health indicators has demonstrated forcefully the importance of this project and of ongoing action to address the health of farming families. Apart from the research dimension, the project has demonstrated the capacity for this kind of project to be an effective intervention, both to ensure that people get urgent treatment, and to provide a stimulus for farm families to take greater responsibility for efforts to improve their own health, well-being and safety status. The health assessments provide the trigger for people to take action, while the educational component offers important insights into how people can take action to improve their health, well-being and safety. The three annual workshops, plus the ongoing support and reinforcement, sustain that action for a significant period of time.

The work on benchmarks offers the prospect of a mechanism that would constitute an effective means of continuing to highlight the importance of health, well-being and safety for farming families, and would provide ongoing support. Key policy issues remain about the accessibility and effectiveness of rural health services to provide the regular assessment of health indicators and appropriate treatment as required. There is also no real commitment to providing farmers, or indeed many other parts of the population, with the detailed health and well-being education and the supportive environment that people need if they are to act appropriately on the information which they receive about their health status.

6. Objective 3: Provide information on the relationship between farm health, health as a social issue and farm productivity

The opportunity provided for people to talk in table groups is a very important part of the overall success of the program. These discussions offered participants the opportunity to informally share their experiences and concerns about health. This gave them the confidence to ask questions and to share perspectives which might otherwise have remained buried. The sessions typically included an opportunity for table group members to report to the whole workshop on the key themes or point of interest. They also provided information about each participant's circumstances, enabling the facilitators to better connect the delivery of information with their health concerns.

Perhaps more importantly, the workshops offered the opportunity to promote a more general discussion about health and the 'triple bottom line' – the program's key underlying message is that there is little point in improving farm productivity if farmers were not able to enjoy the benefits of their labours. This served to underscore the message that farmers needed to take their health seriously as a lifestyle issue, and not just as a matter of individual mortality.

The focus groups also allowed for regular discussion about various issues affecting the third key project objective, on the links between information on the relationship between family health, health as a social issue in rural communities and farm productivity. In the early years, this was limited mostly to the more personal and community aspects of rural communities. In the third year, a specific component of the program focused on the relationship between health and business decision-making.

Primary health issues for farming families

The primary health issues for farming families were:

- the demands of the job
- the ageing of the farm workforce
- concerns about occupational health and safety
- farmer attitudes and beliefs about health, well-being and exercise
- diet, alcohol abuse
- access to reasonable health services.

In addition, stress was mentioned numerous times by participants, although they were unable to articulate the causes of the stress. Few appeared to understand or know much about stress, or what could be done to reduce it. More 'money' or 'rain' were seen to be solutions to stress. They acknowledged that most people were reluctant to seek help when they were stressed. They also believed that it was important to balance farm work, family life and leisure time. Some groups were also aware of the connection between stress, depression and anxiety and the need for a program like this to address this important issue.

Farmers recognised that the job itself was a primary health issue. It is a varied and demanding job with a heavy workload. Unless you actually leave the farm you are always working. Maintaining a balanced life style (with choices such as getting away from the farm, engaging in other physical activity or leisure activities) is important for respite from the demands of farm work. Being able to manage effectively, to delegate and to manage time appropriately, were also cited as key factors in successful farming.

Participants also recognised that they were an ageing workforce and continuing to work the farm predisposed them and their family to accidents and injury. They were not 'bullet proof' and needed to develop strategies to cope as they aged. Maintaining fitness so that they could keep up with the demands of the job was mentioned often as a priority.



Plate 6.1: Reading labels to learn about the nutritional content of their favourite foods



Plate 6.2: Participants enjoying a healthy breakfast

Many issues were raised relating to OH&S on farms. Participants were conscious of the need to maintain safe working practices, especially when it came to protection from the sun, working with chemicals and farm machinery. Manual handling was also raised as an important health and safety issue, as was fatigue – many participants work off the farm to supplement their income and are often tired and prone to accidents. Many participants were concerned about children in the workplace and the added risks that this involved.

There were wide ranging discussions on how farmers' attitudes and beliefs impacted on their health and well-being. A general view was that men, in general, were stoic in talking about their health. They were less likely to discuss their own health issues, let alone the health of their partners or children.

Participants also recognised that their diet was not as good as it could be (Plates 6.1 and 6.2). Having access to a range of fresh fruit and vegetables was an issue for many. While their relative isolation meant they were less tempted to access highly processed 'fast food' it also limited their access to healthy foods. In some cases this also meant that when families had to go to town with children for various sporting and social events that the fast food option for the long journey home was both a treat and a necessity to feed a hungry family.

Participants recognised that lack of access to primary health care was a major issue for farming families. It was difficult for them to get away from the farm for lengthy periods to visit specialists in

regional or capital cities. Waiting for appointments was a source of frustration and many had given up doing so. Added to this was the tendency for many farmers to wait until numerous ailments emerged before seeking a medical appointment, and often would not follow the advice offered during a consultation. There were certain towns within the project that were better serviced, while in some cases, there was greater availability of alternative therapies.

Farming family attitudes to health

When asked about farming family attitudes to health, participants typically referred to:

- traditional/conservative attitudes
- a generally positive outlook
- an assumption that rural living is healthy
- the belief that they are pragmatic, especially when it comes to health.

Some of the traditional attitudes articulated by participants were: 'she'll be right', we are 'bullet proof', especially in relation to younger farmers. Farmers also 'work hard [and] therefore play hard'. The assumption was that it 'won't happen to me'. A common view from many participants was that they were healthier than their urban cousins and that rural living was healthy because 'We live in a healthy environment, [we] do not have air pollution'.

Participants felt that farmers' attitudes to health were improving and that there was increasing awareness of occupational health and safety issues on farms, driven by the rate of accidents on farms, and publicity about these accidents. Participants also recognised that older farmers are more set in their ways; a challenge for the agricultural industry is to get older farmers to pay attention to their health and well-being. With regard to gender, the consensus was that women on farms were more likely to take responsibility for family health issues than men.

Farmers suggested that in relation to their health, a crisis management attitude prevailed – attend to it when it happens. They did not have a health maintenance strategy (like they might have for their farm machinery). Insufficient attention was paid to prevention. It was not a priority as the need was to get the job done. Some acknowledged that they worried more about animal health and a proper approach to prevention with their own livestock than for themselves or their families.

Some thought there was too much emphasis on health: there was information overload and too many hypochondriacs. They felt people were overly concerned with what could go wrong rather than just getting on with the job.

Information access

When asked how they access health information, participants cited a number of options:

- different forms of media, including the internet
- children and other families
- farm support groups
- allied health services
- their general practitioner.

Participants sought health-related information from a range of newspapers and magazines. Television and radio lifestyle shows provided a wide range of information on health and well-being. The internet also provided a wealth of information. Interestingly, participants recognised that their children were a source of information on healthy living as a result of school programs which focus on health and well-being.

As farmer groups are partners in the SFF program it is not surprising that support groups should be identified as a key source of information. Farm500, the Victorian Farmers Federation and Australian Women in Agriculture are supporters of the SFF program. In fulfilling their role in gaining farmer support for SFF, they initiated preliminary discussions with group members around health of farming families with the lead agency. Apart from supporting the project, this reflected the important role these groups play in educating farmers about healthy living choices for their families.

Health and farm business decisions

In the third year of the program, participants were asked to complete a farm business survey which explored the relationship between farm business decision-making and health (see Appendix 13). Their responses were explored in more depth during the third workshop (Plate 6.3). This is an important dimension of the project; while the personal health and quality of life of farmers is important in itself, health status clearly has implications for a farmer's productivity, and for the economic performance of the farm. Viewed from a collective performance, even the data gathered in this project indicates the very serious status of farmers' health, and its potential consequences for the economic performance of the agricultural sector.

A farmer's perception of their health status interacts with their business decision-making in diverse ways. For example, their degree of confidence in their health could affect decisions which they might make about either practical issues such as work priorities or larger questions about type of business in which to invest for the future. On the other hand, the farm business itself can influence their health quite directly and hence their capacity to make decisions. This might occur through its impact on physical health, from pesticides

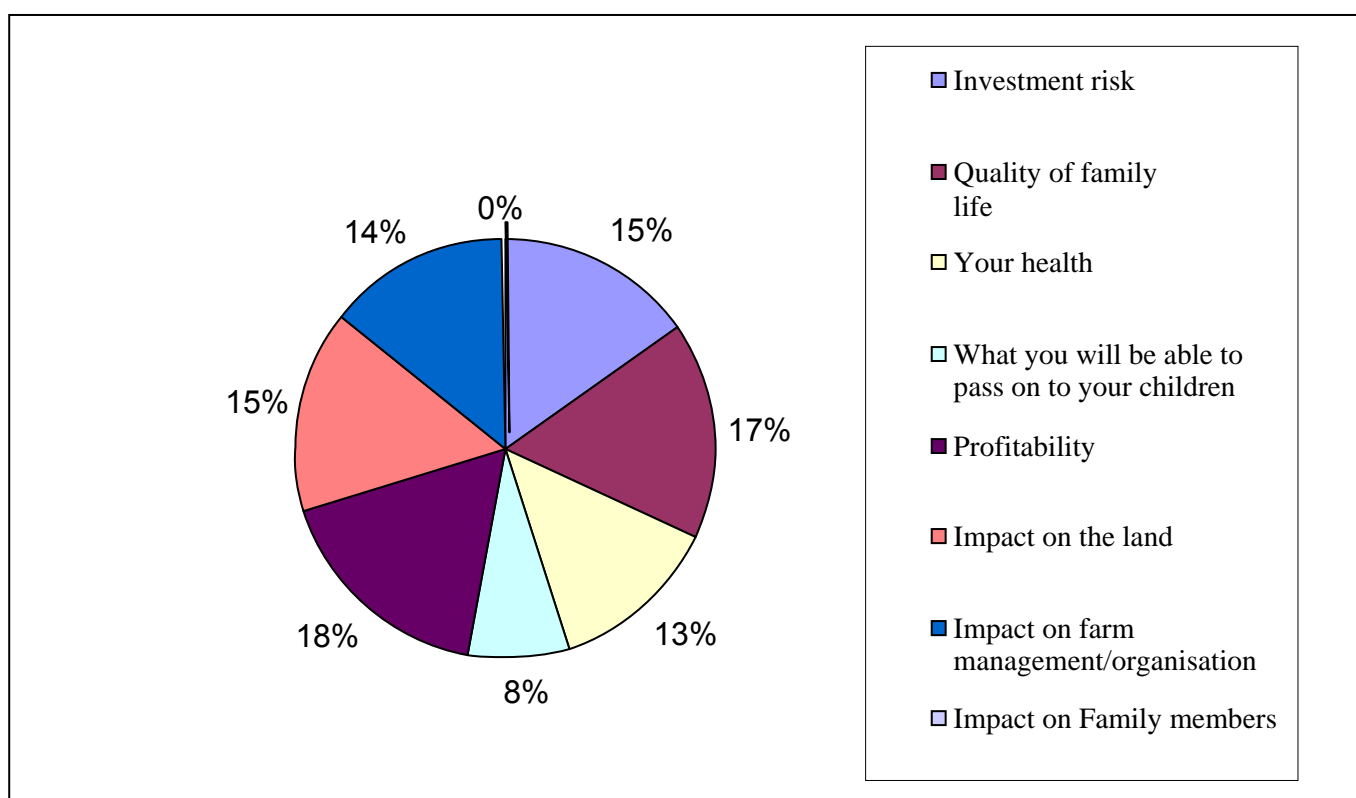


Plate 6.3: Health as a factor in farming business decisions was the basis of a lively debate

for example, or through stress (from the drought, perhaps).

However, questions remain about the degree of importance which farmers themselves place on their health, and how it affects their business decision-making. In this project, the participants' overall responses indicated, at first glance, that they did not consider their health status to be an important influence on the decisions that they made. Only 15.1 per cent reported that they did consider health as one of the five main factors influencing business decisions in the Health and Farm Business survey, although Figure 6.1 does indicate that no one factor had a preponderant influence.

Figure 6.1: Factors that you consider when making decisions about significant change.



The results were surprising, as this was one area where the program participants could be expected to be more aware than other broad acre farmers, by virtue of the involvement of most of them in Farm Management 500. Closer examination of the data, together with the focus group discussions revealed a more complex picture.

One important issue that emerged was the way in which the problem was framed. For example, the responses in the workshops themselves demonstrated considerable ambiguity about even what constituted a business decision.

In the focus group discussions, many farmers asserted that farm business decision-making was a holistic process and resisted examining closely the specific relevance of health issues. This feedback reflected a number of factors which influenced farmers' responses.

The extent to which farmers collapsed any distinction between home or domestic life, and the farm, or their formal workplace was not clear. For those who would identify with the first of these distinctions, the fluidity and interconnectedness of all parts of their lives, made it much more difficult for them to separate out any one part of their lives on the property from any other part. They could recognise, perhaps, the implication of building a new shed or deciding to invest in one type of business rather than another. However, more specific decisions about immediate work priorities, work processes and division of labour, or taking time off, were regarded very much as part of the everyday life of farm management.

At the same time, Figure 6.1 indicates that their learning about health through the SFF program did have significant consequences for participants' decision-making about their farm businesses. Importantly, more than 30 per cent of the options nominated by survey respondents concerned social aspects of life: quality of life (17 per cent) and health (13 per cent).

Figure 6.2 shows responses to the question: 'Has the SFF program prompted you to think differently about managing the work on the farm?' Findings include:

- 8 per cent of responses were related to making a commitment to take more time off
- 8 per cent related to recruiting additional staff
- 8 per cent related to increasing the use of contractors
- 15 per cent were concerned with farmers wanting to spend more time with their families.

These results confirm the holistic view taken by participants of the relationship between the farm as work and the farm as home, that so many referred to in the focus groups.

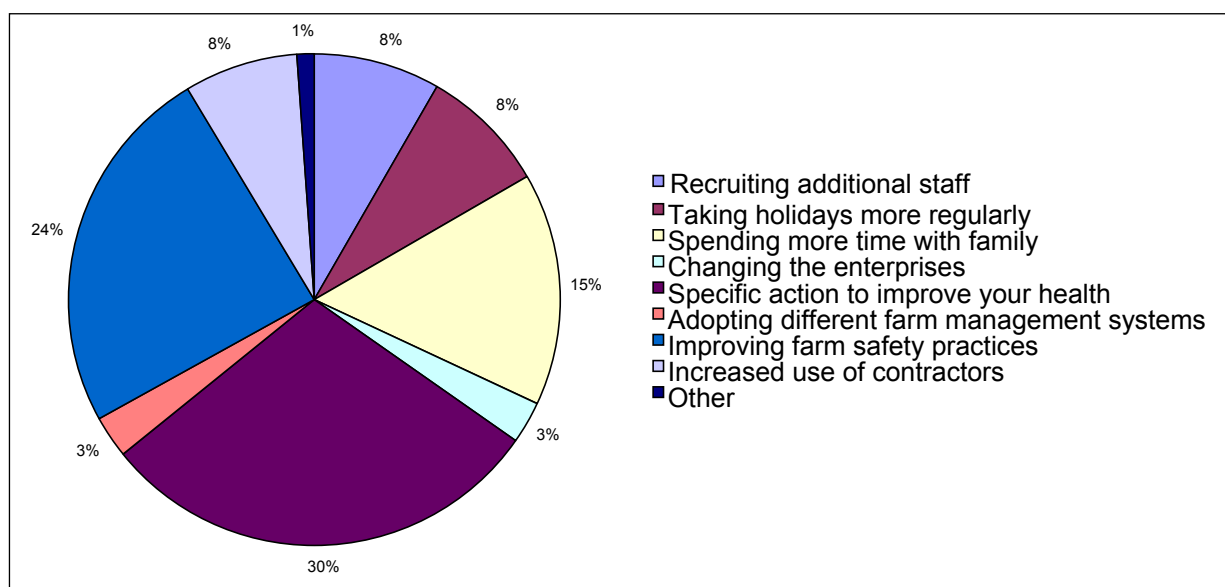
Certainly, a significant number of responses also referred to health related decisions which directly concerned the management of the farm itself:

- 24 per cent of the responses concerned greater attention to improving farm safety practices
- 30 per cent focused on specific action to improve their health.

Overall, 54 per cent of responses concerned improving farm safety and the consideration of improving their health. In addition another 23 per cent identified family specific strategies to improve health and well-being such as taking holidays and spending more time with family and 16 per cent related to reducing workload.

Furthermore, some participants who did not complete the three years of the program reported that they had chosen to leave farming altogether.

Figure 6.2: Thinking differently about managing work on the farm.



Conclusion

The project objectives focused clearly on understanding the ways in which health is important in the social aspects of farming, and in business decision-making. It has revealed a complex relationship, shaped by many farmers' simultaneous experience of their farms as both home and workplace. This underscores the importance of initiatives which address the poor health status of farmers, as the data presented in the earlier chapters of this report would indicate clearly that health can have a very negative effect on farmers' quality of life.

At the same time, many farmers have clearly benefited from participation in organisations such as Farm500, and the VFF which have enabled them to develop a much more focused analysis of their farms as businesses. Initiatives of the kind proposed in the next chapter could make a significant contribution to assisting farmers to recognise and act on the mutual importance of the relationship between health and farm business decision-making. It should be noted also that one possible explanation of the variability in findings of this project would be a seasonal influence. Farmers' workload and outlook can be influenced very heavily by seasonal variations.

Whilst health did not rate heavily in major decisions regarding farm business, other responses did indicate that farm health and farm safety rated highly in relation to managing work on the farm. In relation to this particular question, the responses reflected, in particular, on the learning that they had gained through being part of the SFF program.

This data indicates clearly that participating farmers had taken a quite different approach to both managing their own health, and to farm safety practices. In the focus groups, many more participants indicated that they could see the relevance of their health to the overall management of their farming businesses.

7. Objective 4: Communicate, disseminate and develop project findings

Communication of research findings through conference papers and articles in industry magazines, journals and radio occurred throughout the program. This was considered pivotal in communicating the findings to participants and linking partners together and across sectors. This was seen as important to the success of the program, and also by the partners in raising the importance of health, well-being and health and safety in the various agricultural, health, government and industry sectors.



Plate 7.1: Professor John Martin running a focus group discussion

Magazine, etc.

A communication strategy was developed by the steering group and target markets were confirmed as follows:

- **Target Market 1:** Farm500/VFF members who have participated in the SFF project – the champions of the project
- **Target Market 2:** stakeholders RIRDC, RMIT, WDHS, Farm Management 500, Land Connect, VFF, AWIA, DPI and MLA – through reports, recognition in media, steering group meetings minutes, etc. (Plate 7.1)
- **Target Market 3:** greater community – reports to the local newspapers together with journals, magazines, MLA Newsletter, AWIA newsletters, RIRDC updates, Rural Press, Prograzier, GSV Newsletter, VFF

As the project developed it was felt that one of the gaps within the workshop program was the small involvement of local health services in the early stages. Given the background of the project team, significant effort was placed in raising the issues into health and agriculture rather than the traditional health and safety which focussed mainly on occupational health and safety. Time was devoted to communicating the programs early findings and the high interest from farming families in health, well-being and farm safety.

Papers presented at conferences

- Farm500 Conference, Bendigo, 2003, 2004
- 8th National Rural Health Conference, Alice Springs, March 2005, Sustainable Farm families – the human resource in the triple bottom line
- 9th National Rural Health Conference, Albury, March 2007, Early Intervention in Farming Family Health: Making informed life choices for sustainable family farming
- Australian Pacific Extension Network, Beechworth, March 2006 The Sustainable Farm Families Project: Changing Farmer Attitudes to Health
- National Rural Women's Coalition, Melbourne, 2005, Sustainable Farm Families – the human resource in the triple bottom line
- Department of Human Services, Rural Health, Ballarat, April 2006, Sustainable Farm Families Project: Striking it Lucky or Effective Health Promotion?
- Australian Area Remote Nurses National Conference, Brisbane, October 2006, The Sustainable Farm Families Project: Extending the future through rural health professionals (See Appendix 15 for sample abstracts for conferences.)

Industry workshops

- VFF Social Issues Committee, 2003
- United Dairy Farmers Victoria Conference, Warrnambool, 2005
- Joint Research Venture for Farm Health and Safety, Sustainable Farm Families presentation, June 2005
- Geoffrey Gardiner Foundation Reception, Parliament House, February 2006.
- Joint Research Venture for Farm Health and Safety, 'Scoping Farm Health and Safety Research Ideas for Rural Australia' overview of Sustainable Farm Families program, September 2006
- Sheepvention, Hamilton
Sustainable Farm Families – the human resource in the triple bottom line

Media – print articles

There has been extensive coverage (Plate 7.2) of the SFF project in local media where the workshop program has been conducted (examples are shown in Appendix 16) and include:



Plate 7.2: Presentation on the SFF project at Hamilton 2005 with Parliamentary Secretary Senator Judith Troeth, David Koch (MLC), David Hawker (MHR), Hugh Delahunty (MLA) and SFF project team members

- 2003: 'Bid to elevate health as a key farm issue' *The Weekly Times*, September 24, 2003
'New project aiming to boost the health of farming families' *Hamilton Spectator*, September 2003
- 2004 'Farmer's health examined' *Farming Focus*, May 1 2004
'Cleaning up country living' *MLA Prograzier* Spring 2004
'Bullet proofing farmers' *Ag Impetus Newsletter*, May 2004
- 2005 'Ground breaking rural project recognised with health award' *Hamilton Spectator*, May 2005
(Plate 'District project boosting farm safety across state' *The Standard*, October 15, 2005
- 2006 'Learning the healthy way – a new program is bringing health information to country people' *Ground Cover Farm Safety supplement* February – March 2006
- 2007 'Healthy farms need healthy farmers' *Ground Cover* January – February 2007

Media – radio

Numerous radio interviews including:

- 3YB based in Warrnambool
- ABC West Victoria Rural Radio Horsham
- 97.7FM Goulburn Valley
- 981 3HA Hamilton

International interest

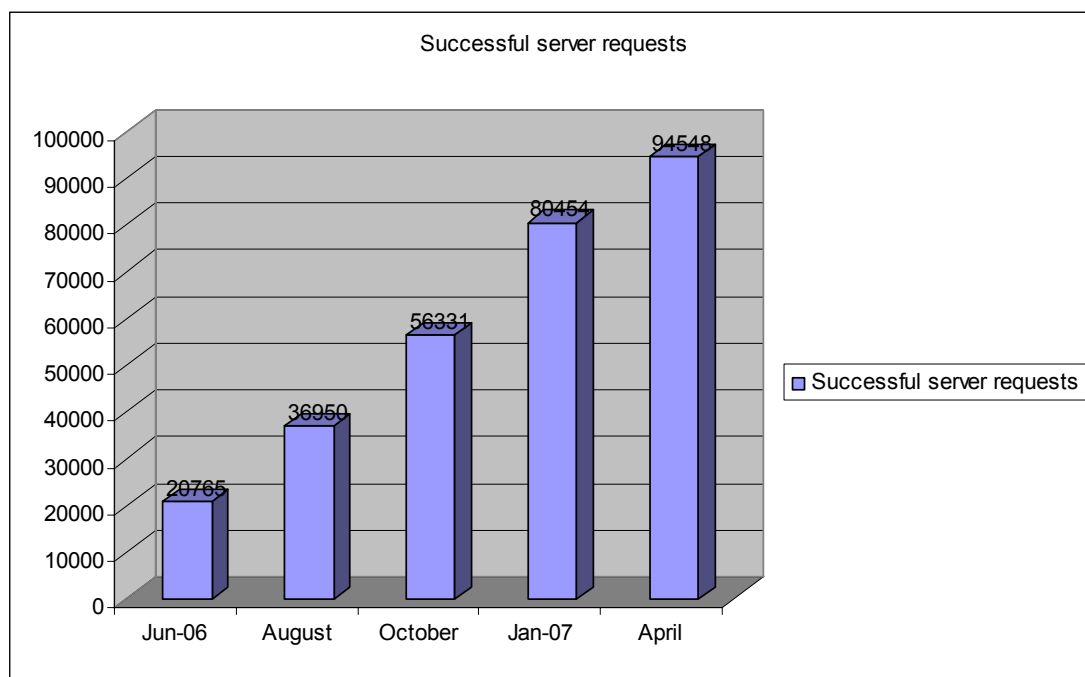
In 2006 Principal Investigator Susan Brumby was awarded a Victorian Travelling Fellowship to further understand the triggers and opportunities for improving farming family health in Victoria. As part of the fellowship, sharing the experiences of Sustainable Farm Families was included. Presentations were given to the following:

- National Farm Medicine Center, Marshfield, Wisconsin, USA
- Iowa Center for Agricultural Safety and Health, University of Iowa, Iowa City, Iowa, USA
- ADAS Pwllpeiran, Cwmystwyth, Wales
- 16th International Congress of Agricultural Medicine and Rural Health Lodi, Italy – plenary session presentation Healthy Farmers Healthy Food: SFF Project

Website

The Sustainable Farm Families website (www.sustainablefarmfamilies) commenced March 2006 and includes all projects listed above. As of April 2007 there were 94548 successful server requests (hits) on the SFF page (Figure 7.1).

Figure 7.1: Successful SFF service requests

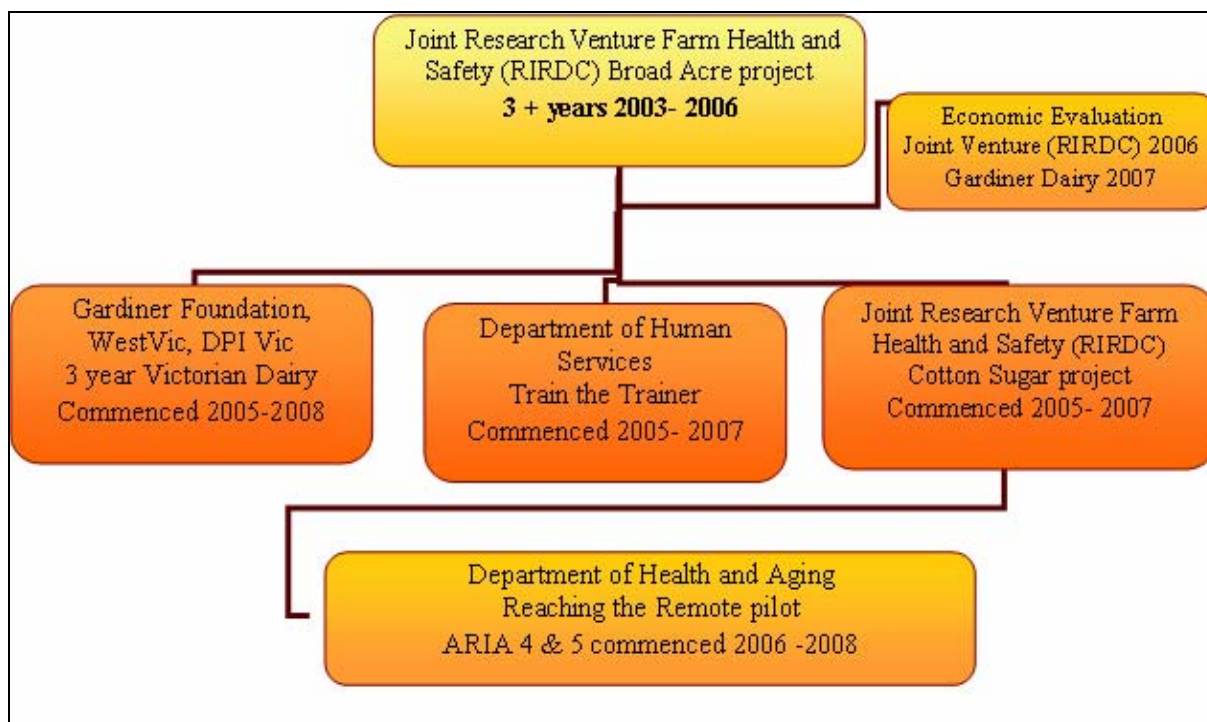


The three annual newsletters sent to all participating farmers were also made available on the SFF website. An example of the first newsletter is attached as Appendix 17.

Other funding and industries trials

As the SFF project continued into 2004, media coverage and word of mouth created more awareness – in particular within the Victorian Dairy industry. The interest in farming family health and its importance in the viability of the industry has continued to grow. Figure 7.2 below shows the relationship of additional SFF programs in relation to the original RIRDC funded project.

Figure 7.2: Additional pilots of the SFF project funded to 2008.



Victorian Dairy Farmers Project – Gardiner Foundation

Further development of the initial project accepted by RIRDC occurred early in the life of the project, when the Gardiner Foundation, together with other industry partners (WestVic Dairy and Department of Primary Industry, Victoria) agreed to fund an extension to the dairy industry, on a larger scale than had been involved initially in the original broad acre project. Approximately 210 dairy farmers in 11 sites began with a similar two-day workshop during 2005. This also involved strong collaboration with the United Dairy Farmers of Victoria who used their extensive networks to communicate the project. This project is due for completion in late 2007.

Sugar and Cotton Project – Joint Research Venture for Farm Health and Safety

Subsequently, additional funding from the RIRDC Joint Research Venture for Farm Health and Safety has extended the program to encompass small pilot sites in cotton in each of New South Wales (Wee Waa) and Queensland (Dalby), and two sites with sugar cane farmers in Queensland (Ayr and Ingham). In each case the sites for the SFF project have been decided by partnering agricultural industry. Importantly, recruitment for the pilot program has also been undertaken by each industry. This has involved new linkages with the CRDC and SRDC as well as the Cotton Growers Association and Cane Growers Association.

Train the trainer program – Department of Human Services, Victoria

The SFF project team along with the Steering Group identified the issues surrounding sustainability and the ability to continue to service the need of future demand for the project. Initial coordination of the project saw the principal investigator and researcher delivering the project across Victoria within the six regions. The ongoing success of the initial pilot for subsequent programs would need to have additional trainers. In 2005, following the funding of the dairy pilot project, a funding opportunity was identified with the Victorian Department of Human Services and the plan for active recruitment and training of other health professionals across Victoria was piloted (Plate 7.3).

This has been undertaken primarily in the dairy industry but utilised the second and third year workshop of the broad acre SFF project to illustrate the project. A total of eleven registered nurses were recruited from across Victoria to undertake education and training. Trainers were supported and educated in the theories of

adult learning and the key foundations in which the SFF project was based. The capacity of the project was enhanced with key linkages with health services throughout Victoria. The ultimate success of this training program has seen the further development of another 25 health professionals from across Australia participating in the training program to assist in the dairy project and the Reaching the Remote program (see below).



Reaching the Remote – Department Health and Ageing

Following the Joint Research Venture for Farm Health and Safety workshop in June 2005, dialogue commenced with the Rural Primary Health Section of the Department of Health and Ageing in relation to addressing health inequities in localities with Accessibility/Remoteness Index for Australian (ARIA) values of 4-5 and in different states across the country. In 2006 the Sustainable Farm Families – Reaching the Remote program commenced for completion in June 2008. Its locations can be seen on Figure 7.3.

Figure 7.3: Locations of SFF projects as of December 2006



8. Discussion of results: Program achievements and policy implications

At the end of the three year program participants were asked if the SFF had made a difference to their health, well-being and farm safety. They expressed the view they were more aware of their own health and that of their family and had a greater understanding as to how they can respond to maintain good health. They could see, and feel the benefits in their own health. They also made a connection between farmer health, well-being and safety, an assumption held by our research team when designing the program.

In terms of awareness, participants acknowledged they were primarily responsible for their own health, well-being and safety. A good starting point in this awareness was more careful consideration of their diet and the impact of moderate exercise – one of the most empowering aspects of the program. Reading food labels and being aware of the food they fed their family were constantly mentioned by participants.

That the program measured participants' cholesterol, blood sugar, blood pressure, BMI, waist-to-hip ratio, and informed them of their result – and what was regarded as acceptable limits for good health – is a cornerstone of the success of the program. The workshop program helps them understand and make the connection between their behaviour and health outcomes, and completes the learning cycle (Kolb 1984) as discussed above.

Participant responses also confirm that the three workshops (Plate 8.1) over a two-year period were important as they could see the connection between their attempts to improve aspects of their health and obtain feedback on their efforts to change. Effecting good health required that they make the time and effort to do so, with the Year 3 results consolidating their changes.



Plate 8.1: Workshop participants

Participants also reported that they had a greater sense of perspective about the important role of health in their farming family decisions. For many, health management was now a priority, and they were passing this view onto family members. They recognised the need to get the lifestyle mix right; family, recreation, work, safety and to encourage their children to be involved.

In terms of the farming business decisions, participants recognised that if they are healthy they can work longer, and more effectively. As this is part of a whole-of-life change they also saw that they needed to change their lifestyle, not only in the quieter times of the year, but also when they were working in the busy, or peak farming times of the year. The program provided them with a rationale to have more time off, to try and achieve

a better balance of work and non-work. This also required better time management around health, well-being and safety priorities.

In terms of managing stress and general anxiety, they recognised that it is important to talk with others about their problems and concerns. Small changes in lifestyle, thinking more about their own future, having downtime to attend children's sporting activities, for example, were now given a higher priority in their lives. For those who had denied themselves a holiday in recent years they recognised that this was an essential part of their personal regeneration and were actively planning for such events or had carried out the commitment.

The SFF program had wide ranging personal effects, or impacts, on behaviour. As several participants noted, the learning gave them permission to care about themselves.

The benefits from participating in the program were many. Some took more walks as a means of managing fitness. The pedometers were a great success. One participant took hers to the mothers' group to create interest. Playing golf was popular as were other forms of exercise such as riding bikes and walking. Children were now encouraged to cycle around the farm to get fit. More organised sport and recreation were mentioned as real benefits.

We were encouraged that many farmers made a connection between health and well-being and farm safety. While it was our assumption as program planners that this was the case, having participants make this connection was a great outcome for the program. In discussing the pros and cons of being well or unwell they raised the connection between wellness and accidents – if you were unwell, as one farmer put it, you were more likely to not pay attention and be hurt.

Many participants reported they used the Worksafe farm safety checklists provided in the workshop to undertake an audit of farm safety. While they may not have addressed all issues initially identified, they had addressed the top priorities and reduced the likelihood of harm on their farm. Many were more proactive in improving OH&S for employees and other family members. One group organised an OH&S specific workshop following the first year of the program. This was a very positive outcome for the program.

Managing the family diet was one thing participants could do and it had a significant impact on health. They followed up on information on diets, suitable for their needs, and this made a difference. Living on farms often some distance from larger centres also challenges farming families to provide healthy and nutritious meals. Many reported they are now more systematic in planning and shopping for appropriate food for their family. Some also reported their local store or supermarket was stocking better food choices as a result of requests and consumer demand (Rabone case study, Chapter 1).

What is clear from the responses to this program is that farming families participating in the program did make healthy living choices, could see the connection between health and farm safety and could identify strategies to manage stress. The evidence from the health changes in the SFF participants confirms that there were changes on a number of indicators. Participants also know why these indicators have changed and feel empowered to continue with a healthy, well-being regime of diet, exercise and relaxation.

A number of more specific observations can be made, arising from the formal evaluation of the program, and from the related project which attempted to assess the economic benefits of the program.

Evaluation of the program

During each workshop, participants were asked to rate each session against a set of questions about the presentation, their learning and aspects which could be improved. Overwhelmingly, participants reported very positively on both the quality of the presentations, and their appreciation of the opportunity to learn about health issues, especially in relation to their own situations. The latter in particular seems to have become a major driver for their continuing participation in the workshops. The intimacy of the physical assessment at the conclusion of each workshop, and the specific data on their own health (especially where there was also a referral) proved to be a significant factor in encouraging the farmers to return to each subsequent workshop.

Over the three workshops, there was an aggregate improvement on these measures. Tables 5.8 and 5.9 indicate that the aggregate improvement was significant statistically.

What were the principal drivers for the perceived improvements? They include:

- quality of presentation, interactive adult learning principles, graphic photos
- impact of personal health data, and personal relationship
- supermarket tour
- action plans and reporting back at the next session (using peer pressure)
- regular contact (follow up if data not returned, two newsletters per year).

These characteristics of the program itself were matched by a strong emphasis on personal responsibility. The program aims not simply to produce better health, but also to assist the participants to develop a strong sense of urgency in maintaining their own health, and to see it as part of a commitment to lifelong learning.

The third year of the program seems to be as important as the second, if not more so, raising questions about those versions of the program which have, for resourcing reasons, been contained to two years.

Economic benefit of the program (in summary)

As part of this research project the Joint Research Venture for Farm Health and Safety funded an economic evaluation of the SFF program. The research aimed to determine the effectiveness of the SFF project in reducing the burden of harm attributable to the health related behaviours of the farmers and to inform future decision making about the project. The evaluation provided an ideal opportunity to validate the SFF project approach in economic terms and to assist us make policy recommendations for further work to address farming family health.

Over the SFF program participants reported changes in the health and well-being behaviors in terms of:

- diet and nutrition through healthier eating and better food choices
- increased physical activity through exercise, changes in farming practice (e.g. running to the farm gate, walking)
- safer work practices
- health checks (these were undertaken each year as part of the SFF program).

The SFF Economic Evaluation (Boymal et al. 2007) used data from the 97 participants who completed all three workshops from 2003-2006. Whilst some participants attended two of the three workshops their data has not been included. Significant changes in health indicators attributable to conditions such as type 2 diabetes and cardiovascular disease showed reductions in risks due to changes in health indicators. Any changes in lifestyle and behaviour from participating in the SFF project can potentially influence health in a number of ways, for example safer work practices can have effects for employees and family members and reducing weight and exercising more can decrease risk for CVD and diabetes.

Policy issues and program development

This report has documented the contributions made by the program to gathering knowledge about farmers' health, its implications for their businesses, and to promoting better health amongst the farming constituency. The program has won a range of awards which are testimony to the recognition which it has achieved as an innovative program for addressing health issues amongst farmers. It has compiled a database on farmer health, and have been in contact with the Australian Centre for Agricultural Health and Safety about a collaborative approach to enhancing research knowledge about farmer health.

However, the analysis presented above provides a foundation for offering more specific policy options for consideration by federal and state governments. The scale of referrals which have arisen from this program suggests that there is reason for cooperative government action to act on the needs of farmers for better health understanding, and for assistance in learning to manage their health better than occurs at present.

'Triple Bottom Line Health Sustainability for Farmers'

It is proposed that the Sustainable Farm Families program should be made available as a means of enabling farmers to exercise greater responsibility for their own health, well-being and safety, of gathering data nationally about farmer health, and for early intervention to ensure that farmers are treated appropriately for existing health issues.

Major principles underpinning a new policy initiative should include:

1. Universal access
All farmers should have access to the program delivered in their locality, irrespective of age or gender or of agricultural sector.
2. Program design
The Sustainable Farm Families program has now been tested and revised in a variety of settings. This provides some confidence in recommending the specific components of the program which need to be addressed:
 - integrated government approach, with industry
 - resource issues
 - implications for education of health professionals
 - development of a national database on farmer health.
3. Research
There has been very little research on the health and well-being of farmers, their families and farm workers in Australia, and indeed, in any setting. There has been more research in the United States, but it is apparent that a major effort will be required to build a database which is adequate for the kind of epidemiological analysis which supports major policy development.

Developing a national program

One of the issues with extension of the program to remote areas is the very high turnover of staff. It does seem that part of the success of the program is the relationship developed between the farmers and the SFF team – health professionals whom they can trust – and this is clearly put at risk when there are regular staff changes. The WDHS team has the opportunity to explore how this might be managed in the context of the delivery of the remote program in Western Australia, the Northern Territory and Queensland and NSW. Extra care will be needed to ensure that farmers are able to develop confidence in a health service, rather than an individual worker. Empowerment and understanding seems to have had a major impact in peoples' ability to seek information.

Managing the rural crisis

One proposal raised with the WDHS team has been that the program could be of particular benefit in those areas where the rural crisis was particularly severe. However, it has not been designed as a form of crisis management, and there has been some concern that this proposal could be setting the program up to fail. It is possible, however, that the program could be of value in assisting farmers to manage crises when they arrived. For this to occur, the program should be established in a context in which farmers are able to participate positively, and to develop a perspective, knowledge and skills that could add to their resilience in difficult times.

The success of the SFF program is based on effective inter-sectoral collaboration involving farmers, their industry associations, a university and the Western District Health Service. The program has credibility with farmers because they are participating with their peers with farming industry support. It also adopts an evidence-based approach to learning.

The SFF team recognises the need to work with other sectors in industry, government, community and lobby groups if the program is to work effectively with farming families. It also recognises that farming families are interested in their own health, well-being and safety and they acknowledge the role it plays in their lives, their families and their farm business. It is viewed as central to the success of the program that it 'de-medicalises' health and well-being so that farmers and families are able to grasp and understand the cause, effect and impact that lifestyle and decisions can make. SFF has recognised that farm places are also workplaces and therefore a variety of external factors and environment come into play. Whilst this can make it confounding and complex, it opens the way for a method of dealing with poor health outcomes and injuries from farming families that provides individual, family, workplace and community some control over the factors that affect their lives.

Rural health programs which seek to change behaviour should be done in concert with people and industries in these places. They should be people-centred, incorporate a strong evidence-base and provide clear messages about healthy living choices.

Recommendations

Key recommendations from this project are:

1. The Australian government fund a national SFF program to establish regional partnerships with rural and regional health services.

The role of the Australian government is central to the health and well-being of our rural community. Farmers remain central to these communities as much as rural society is dependent on this economic activity. The Australian government can take leadership in generating a national commitment to farmer health and well-being by establishing the framework for collaboration across the range of health, industry and educational sectors whose engagement will be central to the ongoing success of the SFF project. In the first instance this will be implemented most productively through establishing a funded national program for regional partnerships to deliver the SFF program across Australia.

2. The SFF program be included in the annual health promotion plan of rural and regional community health services with ongoing financial support from the Australian government.

Rural and regional health services are the primary service deliverers for health promotion programs like the SFF. A central feature in the success of the SFF project is the local engagement of farmers in an informative program where they both learn about basic health improvement strategies and engage in a discussion with their peers and local health professionals about the reasons for their health status. Another important feature of the SFF program is its evidence-based approach. Information on participants' overall health, well-being and safety is collected over time and recorded on their local health file with them understanding their cardiovascular health, (blood pressure, cholesterol, body mass index) and predisposition to cancer (family history, diet, activity, exposure to sun) and diabetes (blood glucose, waist measurement, family history, lifestyle). In addition, information on the causes of anxiety and depression, sexual and reproductive health and well-being are also provided. This improves the long term call on health services through early onset of conditions related to their factors which have not been understood or dealt with by individuals.

3. Future SFF programs be structured around partnership arrangements with institutions and organisations in health, government, industry, education and community.

There are several key factors which contribute to the success of the SFF program. These include the presentation of important health, well-being and safety information related to their current conditions in a highly interactive manner with participants who share a common business interest: sustainable farming. The WDHS team have partnered with a wide range of institutions and organisations to design, deliver, evaluate, fund and extend the program well beyond the first program with broad acre farmers. Continuation of the SFF project will largely depend on the partnership arrangements established by key players, especially rural and regional health services.

4. The evidence-based approach remains a cornerstone of the SFF project as it is adopted by rural and regional health services across Australia.

Farmers returned to the SFF program over two years (three workshops) because they were aware of their personal health and well-being and safety risks and how these relate to the likelihood of their future health status. They were empowered by knowing about the key underlying causes of health and well-being and safety and where they now stand in relation to the information.

5. The Australian government work with the Western District Health Service to fund a five year program to implement the previous recommendations in the report.

The WDHS and its partners have provided leadership, research and development support for the SFF project since its inception and extension beyond the initial cohort of broad acre farmers. With support from the Australian and Victorian governments and industry partners (such as the Gardiner Foundation for the SDFF) the WDHS has worked with universities, agricultural industry associations and community health services to extend and deliver SFF programs. For these programs to become embedded in the annual health promotion practice of rural and regional health services it will require funding for a five year period.

9. Conclusion

This analysis of the data from the SFF tells us much about the health status of farmers represented in the study as well as their knowledge and understanding about family health matters. Interesting amongst this information is farmer attitudes to pain, the level of alcohol consumption, understanding about own gender issues and the strategies many of the participants use to address their health through alternative medicines. The latter reflecting an underlying concern they have about accessing mainstream health and medical services

Since the SFF project has developed into other agricultural domains, such as dairy, cotton and sugar, as well as to remote areas, it has become apparent that there is widespread concern amongst agricultural communities about the health of their farming families. The lack of recognition of this issue means that there is a major risk that the foundation of Australia's agricultural economy – the farmer and their family – could be in crisis. This has significant consequences not only for rural communities, but also for all Australians. An initiative such as the Sustainable Farm Families program has the potential to provide both better research on the issue itself, and to constitute an important intervention for the better.

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Appendices

Appendix 1 SFF steering committee terms of reference document



SUSTAINABLE FARM FAMILIES STEERING GROUP

TERMS OF REFERENCE

PURPOSE:

To take responsibility for the leadership and business associated with the Sustainable Farm Families Project.

Defining and realizing benefits, monitoring budgetary strategy and ensuring project goals are reached in a timely manner.

Being accountable for the SFF project outcome.

Advocating for Sustainable Farm Families project.

AUTHORISATION:

The group reports to WDHS Board and RIRDC as funding bodies

MEMBERSHIP:

Susan Brumby – WDHS Community Services
Delwyn Seebeck – Farmer representative Victorian Farmers Federation
Roslyn Prinsley – RIRDC
Susan Leahey – Farmer representative Australian Women in Agriculture
Victoria Mack – Land Connect
Associate Professor John Martin – RMIT, Hamilton
Neale Price – Meat & Livestock Australia
Warren Straw – FarmBis
Stuart Willder – WDHS Community Services
John Marriot – Farm Management 500
Airlie Worrall – Department Primary Industries, Victoria

CHAIRPERSON:

Associate Professor John Martin – RMIT, Hamilton

QUORUM:

Meeting quorum shall be a minimum of 50 per cent of members plus one. Teleconference attendance may be available.

TERM OF OFFICE:

Committee members will serve for a term of three years being the life of the Project.

FREQUENCY OF MEETINGS:

Meetings will be held quarterly in February, May, August and November. A minimum of 4 meetings per year shall be held.

FUNCTION:

- To take on responsibility for the SFF project business plan and achievement of outcomes.
- To ensure the Sustainable Farm Families project's scope aligns with the requirements of the stakeholder groups.
- To provide those directly involved in the SFF project with guidance on project business issues.
- To ensure effort and expenditure are appropriate to stakeholder expectations.
- To address any issue that has major implications for the Sustainable Farm Families project.
- To keep the SFF project scope under control as emergent issues force changes to be considered.
- To reconcile differences in opinion and approach, and resolve disputes arising from them.
- To report on SFF project progress to those responsible at a high level, such as RIRDC as funding body and WDHS Board as lead agency.

ROLE OF INDIVIDUAL STEERING GROUP MEMBERS:

- To understand the strategic implications and outcomes of initiatives being pursued through Sustainable Farm Families Project.
- To appreciate the significance of the SFF project for all major stakeholders and represent their interests.
- To be genuinely interested in the initiative and the outcomes being pursued in the Sustainable Farm Families Project.
- To be an advocate for the Sustainable Farm Families project's outcomes.
- To have a broad understanding of project management issues and the approach being adopted.
- To be committed to, and actively involved in pursuing the Sustainable Farm Families Project's outcomes.
- Steering group members report back to their respective organisations and related industries on the SFF project and progress.

DISTRIBUTION OF MINUTES:

- Minutes will be distributed to all Steering Group Members within ten working days of the meeting.
- Agendas circulated at least ten days prior to scheduled meetings.
- Items for RIRDC Steering Group to be sent to Susan Brumby at least 14 days before scheduled meetings.

Appendix 2 Pre and post knowledge report

WOMEN'S REPEAT QUESTIONS Year 1,2 & 3

Correct answers (%) and the knowledge gained in attending the workshop, questionnaire given before (pre) and after workshop (post), for the Sustainable Farm Families program Year 1, 2 & 3 (female respondents)

Question	Correct answer (%)		Significant improvement in knowledge (P<0.05)	Correct answer (%)		Significant improvement in knowledge (P<0.05)	Correct answer (%)
	Pre Yr 1	Post Yr 1		Pre Yr 2	Post Yr 2		Post Yr 3 ^A
1. Who has the better health status metropolitan or rural women?	57	98	YES	87	94	NO	98
4. What are the 3 major risk factors for cardiovascular (heart attack, stroke, heart disease) disease?	74	93	YES	90	94	NO	93
5. List 3 things that assist in the prevention of cardiovascular disease.	47	78	YES	66	76	NO	70
6. List 2 major risk factors for diabetes?	60	91	YES	81	88	NO	90
7. What does the National Heart Foundation recommend as the best form of exercise?	91	98	NO	98	98	NO	100
8. How much exercise does the National Heart Foundation recommend per day?	83	96	YES	94	96	NO	100
9. How often should you exercise per week?	39	89	YES	58	85	YES	98
11. What are the risk factors for bowel cancer?	79	95	YES	87	90	NO	90
12. How is bowel cancer detected?	50	77	YES	71	76	NO	68
16. How much fat is required in grams per day in our diet?	28	30	NO	21	34	NO	63
17. How much fibre is required per day in our diet?	57	91	YES	35	60	YES	85
19. List two diseases which are genetically linked?	53	88	YES	69	80	NO	95
20. What is the leading cause of death for Australian women?	36	98	YES	66	73	NO	93
24. How would you rate the relationship between health and your farm productivity?	64	79	YES	81	84	NO	70
25. With the increase in life expectancy the average years an Australian woman will spend with a physical handicap on average is:	3	91	YES	36	43	NO	73
26. How often should a breast self-examination and cervical smear be performed?							
26A. Breast	57	82	YES	77	90	NO	75
26B. Cervical	88	98	YES	91	92	NO	98

^A Questionnaire given only after workshop.

WOMEN'S NON REPEAT Years 1, 2 & 3

Correct answers (%) and the knowledge gained in attending the workshop, questionnaire given before (pre) and after workshop (post), for the Sustainable Farm Families Program Year 1, 2 & 3 (female respondents)

Question	Correct answer (%)		Significant improvement in knowledge (P<0.05)
	Pre Yr 1	Post Yr 1	
Year 1			
2. At what age do you think the average Australian female dies?	31	65	YES
3. At what age do you think the average Australian male dies?	38	60	YES
10. The percentage of Australian adults that experience anxiety, substance abuse or affective (depressive) disorders is:	45	53	NO
13. Women over 50 suffer a degree of incontinence, which interferes with daily life at the rate of:	31	26	NO
14. What is hormone therapy?	83	95	YES
15. What percentage of Australian women experience mild to moderate menopausal symptoms?	36	46	NO
18. Unemployed people have higher rates of death and reported illness than more affluent people in Australia.	74	77	NO

Question	Pre Yr 2	Post Yr 2	
Year 2			
2. What do you think are the main signs or symptoms of depression (1 correct response)?	100	98	NO
3. If you thought someone you knew closely was experiencing depression, what would you do (1 correct response)?	98	94	NO
10. The percentage of Australian adults that experience depression at some point in their lives is:	65	76	NO
13. List two methods by which we can treat prostate cancer:	32	72	YES
14. The impotence rate in men over fifty is	43	36	NO
15. What are two treatments for impotence?	25	85	YES
18. Every three days a person is fatally injured on a farm in Australia (True or False).	69	80	NO
22. The likelihood of stress occurring in jobs over which people have little control is more likely to occur than those people working in jobs with high level of control.	58	76	YES

Question	Correct answer (%)
	Post Yr 3*
Year 3	
2. What do you think are the main signs or symptoms of depression (1 correct response)?	100
3. If you thought someone you knew closely was experiencing depression, what would you do (1 correct response)?	100
10. The percentage of Australian adults that experience depression at some point in their lives is:	90
13. Women over 50 suffer a degree of incontinence, which interferes with daily life at the rate of:	70
14. What is hormone therapy?	78
15. What percentage of Australian women experience mild to moderate menopausal symptoms?	48
18. Every three days a person is fatally injured on a farm in Australia (True or False).	98
22. The likelihood of stress occurring in jobs over which people have little control is more likely to occur than those people working in jobs with high level of control.	80

* Questionnaire given only after workshop.

MEN'S REPEAT QUESTIONS Year 1,2 & 3

Correct answers (%) and the knowledge gained in attending the workshop, questionnaire given before (pre) and after workshop (post),
for the Sustainable Farm Families program Year 1, 2 & 3 (male respondents)

Question	Correct answer (%)		Significant improvement in knowledge (P<0.05)	Correct answer (%)		Significant improvement in knowledge (P<0.05)	Correct answer (%)
	Pre Yr 1	Post Yr 1		Pre Yr 2	Post Yr 2		Post Yr 3 ^A
1. Who has the better health status metropolitan or rural women?	73	98	YES	94	94	NO	98
4. What are the 3 major risk factors for cardiovascular (heart attack, stroke, heart disease) disease?	81	91	NO	75	83	NO	93
5. List 3 things that assist in the prevention of cardiovascular disease.	54	68	NO	51*	53*	NO*	73
6. List 2 major risk factors for diabetes?	58	85	YES	72	76	NO	93
7. What does the National Heart Foundation recommend as the best form of exercise?	87	92	NO	94	95	NO	98
8. How much exercise does the National Heart Foundation recommend per day?	81	95	YES	87	100	YES	100
9. How often should you exercise per week?	27	75	YES	47	81	YES	98
11. What are the risk factors for bowel cancer?	70	85	YES	77	90	YES	91
12. How is bowel cancer detected?	46	65	YES	55	73	YES	68
13. List two methods by which we can treat prostate cancer?	23	85	YES	38	52	NO	55
16. How much fat is required in grams per day in our diet?	37	31	NO	39	54	NO	82
17. How much fibre is required per day in our diet?	31	66	YES	39	65	YES	64
19. List two diseases which are genetically linked?	55	76	YES	55	68	NO	89
20. What is the leading cause of death for Australian men?	80	78	NO	84	91	NO	95
24. How would you rate the relationship between health and your farm productivity?	67	78	NO	70	73	NO	NOT IN SURVEY

^A Questionnaire given only after workshop. * Note: 18% answered medical examinations in the post questionnaire compared to 4 % pre.

MEN'S NON REPEAT Years 1, 2 & 3

Correct answers (%) and the knowledge gained in attending the workshop, questionnaire given before (pre) and after workshop (post), for the Sustainable Farm Families Program Year 1, 2 & 3 (male respondents)

Question	Correct answer (%)		Significant improvement in knowledge (P<0.05)
	Pre Yr 1	Post Yr 1	
Year 1			
2. At what age do you think the average Australian female dies?	31	34	NO
3. At what age do you think the average Australian male dies?	24	32	NO
10. The percentage of Australian adults that experience anxiety, substance abuse or affective (depressive) disorders is:	21	23	NO
14. The impotence rate in men over fifty is	31	45	NO
15. What are two treatments for impotence?	15	83	YES
18. Unemployed people have higher rates of death and reported illness than more affluent people in Australia.	54	75	YES

Question	Pre Yr 2	Post Yr 2	
Year 2			
2. What do you think are the main signs or symptoms of depression (1 correct response)?	94	97	NO
3. If you thought someone you knew closely was experiencing depression, what would you do (1 correct response)?	92	97	NO
10. The percentage of Australian adults that experience depression at some point in their lives is:	58	65	NO
14. What is hormone therapy?	39	48	NO
15. What percentage of Australian women experience mild to moderate menopausal symptoms?	27	21	NO
18. Every three days a person is fatally injured on a farm in Australia (True or False).	31	70	NO
22. The likelihood of stress occurring in jobs over which people have little control is more likely to occur than those people working in jobs with high level of control.	45	68	YES
25. With the increase in life expectancy the average years an Australian woman will spend with a physical handicap on average is:	14	46	YES
26. How often should a breast self-examination and cervical smear be performed?			
26A. Breast	33	59	YES
26B. Cervical	53	94	YES

Question	Correct answer (%)
	Post Yr 3*
Year 3	
2. What do you think are the main signs or symptoms of depression (1 correct response)?	100
3. If you thought someone you knew closely was experiencing depression, what would you do (1 correct response)?	95
10. The percentage of Australian adults that experience depression at some point in their lives is:	84
14. The impotence rate in men over fifty is	18
15. What are two treatments for impotence?	41
18. Every three days a person is fatally injured on a farm in Australia (True or False).	100
22. The likelihood of stress occurring in jobs over which people have little control is more likely to occur than those people working in jobs with high level of control.	77
* Questionnaire given only after workshop.	

Appendix 3 SFF workshop programs

Workshop program Year 1



AGENDA:

NIL BY MOUTH

DAY ONE:



7.00am – 8.10am:

Individual Fasting Health Assessments

8.10am – 8.45am:

BREAKFAST and Focus Group discussions

8.45am – 9.00am:

Introduction of project

9.00am – 9.40am

State of rural health – how are we travelling?

9.40am – 10.45am

Cardiovascular disease – getting to the heart of things

10.45am – 11.00am:

Morning Tea

11.00pm – 12.00pm:

Cancer – you can beat it

12.00pm – 1.00pm

Farm health & safety – Where you live work and play

1.00pm – 1.30pm

Nutrition and diet (Label reading)

1.30pm – 2.00pm:

Lunch

2.00pm – 5.00pm:

Individual health assessments



DAY TWO:

8.00am – 10.30am:

Balance of Individual health assessments

10.45am – 11.45am

Supermarket tour

11.45am– 12.45pm

Stress Less

12.45pm – 1.30pm

Lunch

1.30 pm – 3.45pm:

Gender benders

3.45pm – 4.00pm

Afternoon tea

4.00pm – 4.15pm

Post Questionnaire

4.15pm – 5.15pm

Action Planning; Safety Check and Evaluation

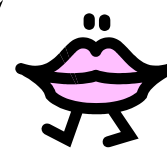
5.15pm – 5.30pm

Questions and Close



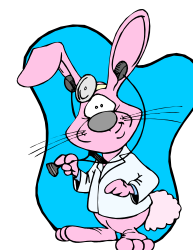
Workshop program Year 2

AGENDA:

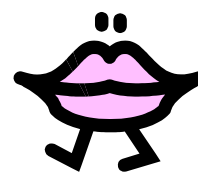


NIL BY MOUTH

- 7.00am – 8.15am: Individual Fasting Health Assessments
- 8.15am – 8.45am: BREAKFAST and Reflection on learning's and impact on farming families from Year 1
- 8.45am – 9.45am: Participants Individual presentations from Action Plans
- 9.45am – 10.15 am: Refresh and revisit learnings from Year 1 program.
- 10.15am – 10.30am: Morning tea**
- 10.30am – 11.30am: Mental Health and Well-Being – Depression, Anxiety, Suicide
- 11.35am – 12.15pm: Mental Health and Well-Being – Practical Assistance, Lifestyle Activities
- 12.15pm – 1.00pm Lunch**
- 1.00pm – 2.30pm: Gender Benders in reverse
- 2.30pm – 2.45pm: Health Agreement Feedback/Year 2 action planning
- 2.45pm – 3.00pm: Afternoon tea**
- 3.00pm – 6.00pm: Physical Assessments



Workshop program Year 3



NIL BY MOUTH

AGENDA:

7.15 am – 8.15am:
questionnaires

Individual Fasting Health Assessments,



8.15am – 8.45am:

BREAKFAST and Reflection on learning's and impact on farming families from Years 1&2

8.45am – 9.30am:

Participants Individual presentations from Action Plans and achievement scale

9.30am – 10.15 am:

Refresh and revisit learning's from Years 1 & 2 programs

10.15am – 10.30 am:

Morning tea

10.30am – 11.40am:

Diabetes – the epidemic

11.40am – 12.40pm:

Focus group discussion – Impact of SFF on Farming Business questionnaire

12.40pm – 1.15pm

Lunch

1.15pm – 2.00 pm:

Physical Activity- Are you getting enough?

2.00pm – 2.45pm:

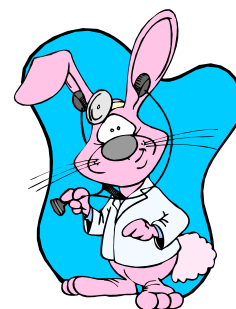
Focus group, what we have learned, group Year 3 results, program results, questions and sustainability

2.45pm – 3.00pm

Afternoon tea

3.00pm – 5.30pm:

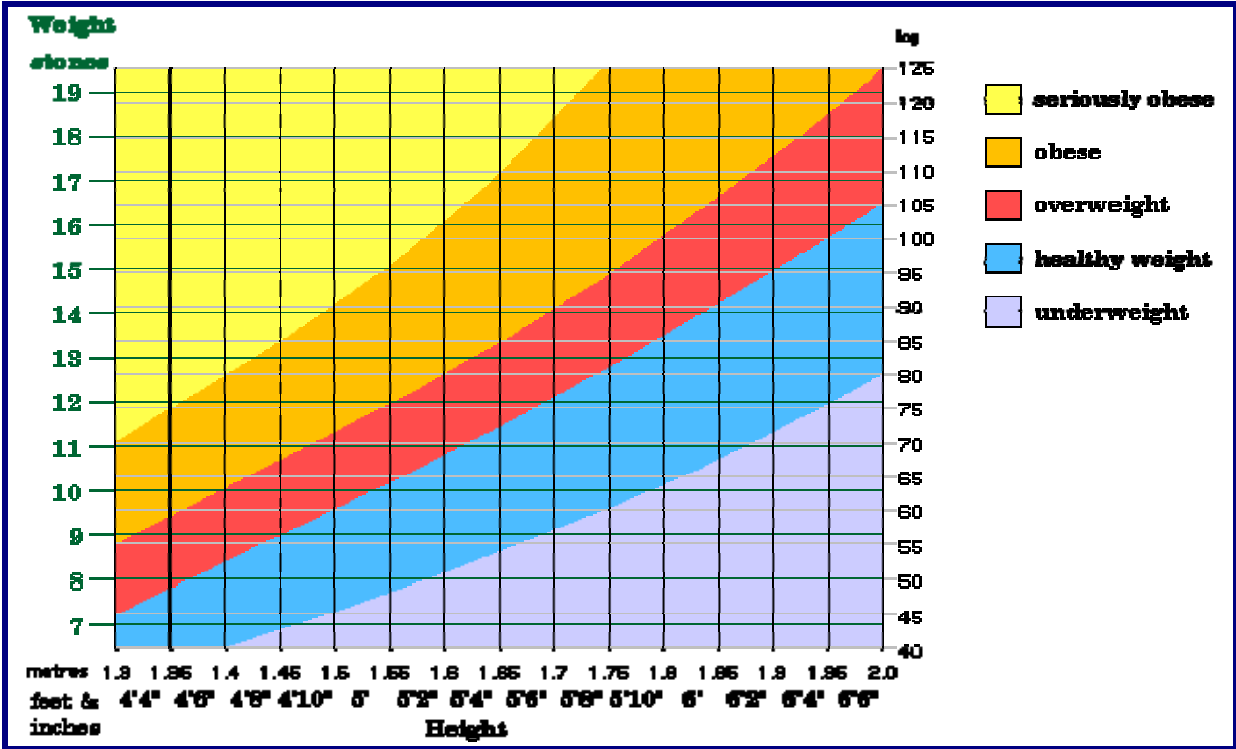
Physical Assessments



Appendix 4 Physical health assessment

UR Label

Sustainable Farm Families Indicators



Health Indicator	Recommended Values	Initial Assessment		12 Month Review		24 Month Review	
		Date.....		Date.....		Date.....	
Weight and height	Per individual	Weight	Height	Weight	Height	Weight	Height
Waist Hip ratio	M 1.0 to 1.0 ratio F 0.8 to 1.0 ratio	Waist	Hip	Waist	Hip	Waist	Hip
Body mass Index	M 20-25 healthy F 20-25 healthy						
Percentage of Body Fat	M 10-20% F 20-35%	%	Kg	%	Kg	%	Kg
Cholesterol level	5.5 mmols or less						
Blood Sugar level	3.5-7.7 random test 5.5 or less fasting						
Blood Pressure	Below 140/90						
Pulse Rate	60-100 regular						

Comment:

Sustainable Farm Families

UR Number

Physical Assessment

General Appearance and Presentation <input type="checkbox"/> Allergies <input type="checkbox"/> List medications	General comments
Genetic Evaluation <input type="checkbox"/> Family history of cancer <input type="checkbox"/> Familial link to cardiovascular disease <input type="checkbox"/> Familial link to diabetes <input type="checkbox"/> Other genetically linked disease	
Neuro assessment <input type="checkbox"/> Visual impairments <input type="checkbox"/> Frequent headaches <input type="checkbox"/> Hearing impairment <input type="checkbox"/> Other related disorders	
Skin and mucous membranes <input type="checkbox"/> Intact <input type="checkbox"/> Disorders noted	
Cardiovascular assessment <input type="checkbox"/> Irregular pulse <input type="checkbox"/> Hypertension <input type="checkbox"/> Elevated cholesterol	
Respiratory Assessment <input type="checkbox"/> Cyanosis <input type="checkbox"/> Cough/sputum <input type="checkbox"/> Shortness of breath <input type="checkbox"/> Smoker number per day _____	
Gastrointestinal Assessment <input type="checkbox"/> Abdominal tenderness <input type="checkbox"/> Nausea/vomiting <input type="checkbox"/> Gastro intestinal indigestion/ reflux <input type="checkbox"/> Constipation/diarrhoea	
Urological Assessment <input type="checkbox"/> Stress incontinence <input type="checkbox"/> Frequency of voiding >1 per night <input type="checkbox"/> Difficulty in voiding pattern	
Sexual and Reproductive <input type="checkbox"/> Sexually active: - yes or no <input type="checkbox"/> Overdue pap smear/ mammography <input type="checkbox"/> Erectile dysfunction <input type="checkbox"/> Other issues	
Musculoskeletal Assessment <input type="checkbox"/> Joint or muscle pain <input type="checkbox"/> Other issues	
Psychosocial <input type="checkbox"/> Living arrangements (carer, partner, children) <input type="checkbox"/> Stress, anxiety or depression	

Signed: _____

Date: _____

Appendix 5 Demographics – consumer info in SCOT tool

Consumer Information

If questions is irrelevant or information not known, write Not Applicable or N/A

Record Agency Assigned Consumer Identifier (say writer agency)

or affix label here

Consumer Details

Family Name: _____ Sex (circle one) Male Female

Given Names: _____ Title (circle one) Mr Mrs Ms Other

Date of Birth (month) / (day) / (year) _____

Preferred Name(s): _____

Contact Details

Contact Address (for correspondence, home visits etc)

_____ (number) _____ (street)

_____ (suburb/town/city) _____ (postcode)

Usual Address (if different from contact address)

_____ (number) _____ (street)

_____ (suburb/town/city) _____ (postcode)

Contact Phone Number(s) (do not include number). Can leave message? Y or N

Home: _____

Work: _____

Mobile: _____

Fax: _____

Email: _____

Who the Agency Can Contact if Necessary

(eg. case manager, next of kin, carer, guardian, friend, emergency contact)

Person 1 Name: _____ Person 2 Name: _____

Contact Details: _____ Contact Details: _____

_____ (number) _____ (street) _____ (number) _____ (street)

_____ (suburb/town/city) _____ (postcode) _____ (suburb/town/city) _____ (postcode)

Phone: _____ Phone: _____

Relationship to Client: _____ Relationship to Client: _____

General Practitioner (if no GP write N/A)

Name: _____

Address: _____

Phone: _____

Fax: _____

Email: _____

Western District Health Service

Office Use Only:

Name: _____ Designation: _____

Sign: _____ Date: _____

If information becomes superseded, indicate below and record updated information on a new form

The information on this form has been superseded

Date: _____ Name: _____ Sign: _____

Consumer Information

If questions is irrelevant or information not known, write Not Applicable or N/A

Record Agency Assigned Consumer Identifier (say writer agency)

or affix label here

Service Requested

Notes: (including alerts and comments on risks, urgency and access issues)

Main Language Spoken at Home

Record: (1) English
(2) Other
If other, specify: _____

Interpreter Required

Record: (1) Interpreter not needed.
(2) Interpreter needed.

Preferred Language

(If not spoken English), include sign language, and any required communication devices or special interpreter needs.

Source of Referral

Record: (1) Self (2) Family, significant other, friend.
(3) GP/medical practitioner (community-based).
(4) Specialist aged or disability assess. team/service (eg. ACAT).
(5) Comprehensive HACC assessment authority.
(6) Community nursing services. (7) Hospital (public).
(8) Psychiatric/Mental health service or facility.
(9) Extended care/rehabilitation facility. (10) Palliative care facility/hospice.
(11) Government residential aged care facility.
(12) Aboriginal health service. (13) Carlink centre.
(14) Other community-based government medical/health service.
(15) Other government medical/health service.
(16) Other government community-based services agency.
(17) Hospital (private). (18) Non-government residential aged care facility.
(19) Other non-government medical/health service.
(20) Other non-government community-based service.
(21) Law enforcement agency.
(22) Other.

Source of Referral Contact Details: _____

Country of Birth

Record: (1) Australia. (2) Other.
If other, specify: _____

Indigenous Status

Record: (1) Aboriginal but not Torres Strait Islander origin.
(2) Torres Strait Islander but not Aboriginal origin.
(3) Both Aboriginal and Torres Strait Islander origin.
(4) Neither Aboriginal nor Torres Strait Islander origin.

Government Pensioner/Benefit Status

Record: (1) Aged Pension.
(2) Veterans' Affairs Pension.
(3) Disability Support Pension.
(4) Carer Payment (person).
(5) Unemployment-related benefits.
(6) Other gov. pension or benefit.
(7) No gov. pension or benefit.

Card Number: _____

DVA Card Status

Record: (1) No DVA Card.
(2) Yes Gold Card.
(3) Yes White Card.
(4) Yes Other DVA Card.

DVA Card Number: _____

Insurance Status

Insurer Name and Card Number: _____

Medicare Number: _____

Health Care Card Number: _____

Office Use Only:

Name: _____ Designation/Agency: _____ C1 Page 2 of 2

Sign: _____ Date: _____ Contact number: _____

If information becomes superseded, indicate below and record updated information on a new form

The information on this form has been superseded

Date: _____ Name: _____ Sign: _____

Appendix 6 Health conditions and behaviours

Profile: Health Conditions

If question is irrelevant or information not known, write Not Applicable or NA

Record Agency Consumer Identifier (initial contact agency) _____

or affix label here

Overall Health

In general, how would you say your health is?

- ☐ Excellent
- ☐ Very Good
- ☐ Good
- ☐ Fair
- ☐ Poor

How much did your health interfere with your normal activities (outside and/or inside the home) during the past 4 weeks?

- ☐ Not at all
- ☐ Slightly
- ☐ Moderately
- ☐ Quite a bit

Hearing

How is your hearing?

- ☐ Excellent
- ☐ Very Good
- ☐ Good
- ☐ Fair
- ☐ Poor

Do you wear a hearing aid?

- ☐ Yes
- ☐ No

How much bodily pain have you had during the past 4 weeks?

- ☐ None
- ☐ Very Mild
- ☐ Moderate
- ☐ Severe
- ☐ Very Severe

Vision

How is your eyesight for reading?

- ☐ Excellent
- ☐ Good
- ☐ Fair
- ☐ Poor

How is your long distance eyesight?

- ☐ Excellent
- ☐ Good
- ☐ Fair
- ☐ Poor

Falls

Have you had a fall inside/outside the home in the past 6 months?

- ☐ Yes
- ☐ No

If yes, record number of falls

Do you wear glasses?

- ☐ Yes
- ☐ No

Health Conditions (include all issues eg. Allergies, acute medical conditions, disabilities, continence, dental, developmental problems)

1.

2.

3.

4.

5.

Current Medications (include prescriptions, over-the-counter and alternate products)

1.

5.

2.

6.

3.

7.

4.

8.

Comments

Office Use Only

Name:

Designation/Agency: **WDHS Community Services**

Sign:

Date:

Contact Number: **(03) 555 18450**

Profile: Health Behaviours

If question is irrelevant or information not known, write
Not Applicable or NA

Record Agency Assigned Consumer Identifier (initial
contact agency)

_____ or affix label here

Smoking

- ☐ Never smoked
 - ☐ Has quit smoking
 - ☐ Currently smokes
- If quit, record when
Date/Year _____

Alcohol

How often do you have a drink containing
alcohol?

- ☐ Never – if never, proceed to next
question
- ☐ Monthly
- ☐ Once a week
- ☐ 2 to 4 times per week
- ☐ 5+ per week

*How many standard drinks do you have on a
typical day when you are drinking?*

- ☐ 1 to 2
- ☐ 3 to 4
- ☐ 5 to 6
- ☐ 7 to 8
- ☐ 8+ per day

*How often do you have more than 6
standard drinks on one occasion?*

- ☐ Never
- ☐ Monthly
- ☐ Once a week
- ☐ 2 to 4 times per week
- ☐ 5+ per week

Breast Screen

- ☐ Yes ☐ No
- If yes, record when
Date/Year _____

Pap Smear

- ☐ Yes ☐ No
- If yes, record when

Date/Year _____

Physical Activity

Would you accumulate 30 minutes or more of
moderate intensity physical activity on most
days of the week?

- ☐ Yes ☐ No

Physical Fitness

activity you could do for at least 2 minutes?

- ☐ **Very heavy** (eg, run, fast pace; carry a
heavy load upstairs or uphill of 25 lbs/10kg)
- ☐ **Heavy** (eg, jog, slow pace; climb stairs or
A hill at moderate pace)
- ☐ **Moderate** (eg, walk, medium pace; carry a
heavy load level ground 25 lbs/10 kg)
- ☐ **Light** (eg, walk, medium pace; carry a light load
level ground 10 lbs/5 kg)
- ☐ **Very Light** (eg, walk, slow pace; wash dishes)

Comments, including other relevant
Issues (eg, other substance use, safe
sex practices):

Office Use Only

Name: _____ Designation/Agency: **WDHS Community Services**

Sign: _____ Date: _____ Contact Number: **(03) 555 18450**

Appendix 7 Kessler K 10 mental health survey

Health and Well Being

Record Agency Assigned Consumer Identifier (initial contact agency) _____

or affix label here

For all questions, please fill in the appropriate response circle with a tick ✓

In the past 4 weeks:	None of the time	A little of the time	Some of the time	Most of the time	All of the time
1. About how often did you feel tired out for no good reason?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. About how often did you feel nervous?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. About how often did you feel so nervous that nothing could calm you down?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. About how often did you feel hopeless?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. About how often did you feel restless or fidgety?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. About how often did you feel so restless you could not sit still?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. About how often did you feel depressed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. About how often did you feel that everything is an effort?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. About how often did you feel so sad that nothing could cheer you up?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. About how often did you feel worthless?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Personal and Social Support

During the past 4 weeks, was someone available to help you if you needed and wanted help? For example, if you:

- Felt very nervous, lonely or blue
- Got sick and had to stay in bed
- Needed someone to talk to
- Needed help with daily chores
- Needed help just take care of yourself

- ☐ Yes, as much as I wanted
- ☐ Yes, quite a bit
- ☐ Yes, some
- ☐ Yes, a little
- ☐ No, not at all

Office Use Only

Name:	Designation/Agency: WDHS Community Services		
Sign:	Date:	Contact Number: (03) 555 18450	

Appendix 8 Farm safety survey

Please take time to complete this survey

1. Please indicate the main type of farming undertaken. (tick the relevant boxes)

Enterprise	Tick	Enterprise	Tick
a) Cattle	<input type="checkbox"/>	e) Cotton	<input type="checkbox"/>
b) Sheep	<input type="checkbox"/>	f) Viticulture	<input type="checkbox"/>
c) Cropping	<input type="checkbox"/>	g) Market Gardening	<input type="checkbox"/>
d) Dairy	<input type="checkbox"/>	h) Sugar	<input type="checkbox"/>

2. Please tick the table below to indicate your immunisations for the following.

Vaccination	Yes	Year	No	Not sure	Vaccination	Yes	Year	No	Not sure
Tetanus					Flu				
Hepatitis B					Meningococcal				
Q Fever					Other				

3. Do you use **chemicals (pesticides, herbicides, strong detergents)** on your Farm?

Yes ☐ Occasionally ☐ No ☐

If yes or occasionally, what protective gear is used when applicable:

☐ a) Overalls

☐ c) Goggles/Safety glasses

☐ b) Mask

☐ d) Gloves

☐ e) Other.....

4. When using workshop or outdoor equipment eg lawn mower, power tools, post hole driver/auger or assisting in the use of these, do you wear protective gear?

Yes ☐ Occasionally ☐ Never ☐ Don't ever use or assist ☐

If yes or occasionally please indicate:

☐ a) Goggles/Safety glasses

☐ c) Gloves

☐ b) Ear muffs

☐ d) Other

5. Do you use any sun protection? ☐ Yes all the time ☐ Usually ☐ Occasionally ☐ Never

What do you use?

☐ a) Long sleeved shirts
Other.....

☐ c) Peak hat

☐ e) Long pants

☐ g)

☐ b) Broad brim hat

☐ d) Sunglasses

☐ f) Sun cream – **SPF rating**

6. Have you suffered any farm injury / illness in the last 12 months? Yes ☐ No ☐

If yes, proceed to question 7

If no, proceed to question 11

7. What was the contributing factor? (Please tick and indicate)

- ☐ a) Farm vehicle (eg truck, ATV, ute).....
- ☐ b) Mobile plant/ Machinery (eg tractor, auger, posthole driver).....
- ☐ c) Fixed plant equipment (handpiece, pump, dairy plant, irrigation plant).....
- ☐ d) Workshop equipment (eg welder, angle grinder, drills).....
- ☐ f) Materials (eg rope, wire, nail).....
- ☐ h) Animal(horse, cattle, sheep, pigs, spider, dog).....
- ☐ i) Chemical (eg pesticide, herbicide, diesel, explosives).....
- ☐ j) Working environment (eg sun, dust, smoke exposure).....

8. Description of Injury – please provide a brief description of the injury.

What were you doing?.....

What went wrong?.....

What actually caused the injury?.....

Eg: *During harvest I was climbing on the ford 5000 tractor. I slipped off the tractor and my head hit the ground.*

Eg: *I was lamb marking and vaccinated myself with Coopers 5:1 vaccine using a disposable vaccinator.*

9. What was the body location of the injury?.....

10 a. What was the nature of injury? (Please tick and indicate)

- ☐ a) Soft tissue injury (eg cut, puncture, bruise, burn, foreign body).....
- ☐ b) Bone, tendon, joint (fracture, sprain).....
- ☐ c) Animal related illness (eg leptospirosis, scabby mouth).....
- ☐ d) Other (poisoning, inhalation, absorption).....

10 b. What treatments were involved? (Please tick and indicate)

☐ a) None (did nothing).....

☐ b) Self managed (ice, pain killers, bandage, rest).....

☐ c) Health Service (bush nursing, hospital).....

☐ d) General Practitioner
.....

☐ e) Other (physiotherapy, chiropractor, naturopath).....

11. Do all your tractors have a ROP fitted? ☐ Yes ☐ No

12. Do all your PTO have guards in place?
☐ Yes ☐ No

13. Have you undertaken a First Aid Certificate? ☐ Yes Year..... ☐ No

14. Do you know how to perform basic life support? ☐ Yes ☐ No

15. Do you have an emergency/ evacuation plan? ☐ Yes ☐ No

16. Do you wear a motorcycle helmet when on a motorbike or ATV?
☐ Yes all the time ☐ Usually ☐ Occasionally ☐ No ☐ Never ride or a passenger

If you don't wear a helmet all the time, why not?.....

17. Do you eat your own meat (eg slaughter/contract kill) ☐ Yes ☐ No

If yes, what kinds of meat (eg lamb, beef, pork)

.....
.....

Thankyou



Sustainable Farm Families

Appendix 9 Pre/post knowledge questionnaire

Sustainable Farm Families Pre/Post Knowledge Questionnaire (Men)

These questions give us the ability to assess your pre and post education knowledge and awareness and allow us to help better structure education sessions and teaching techniques. Please answer the questions listed; if you are unsure of the answer please leave the question blank. No names are required **but please fill in your U.I with the number on the back of your name tag.**

1. Who has the better health status metropolitan or rural men? _____
2. At what age do you think the average Australian female dies?
 - ☐ 65-70
 - ☐ 70-75
 - ☐ 75-80
 - ☐ 80-85
3. At what age do you think the average Australian male dies?
 - ☐ 65-70
 - ☐ 70-75
 - ☐ 75-80
 - ☐ 80-85
4. What are the **3 major risk factors** for cardiovascular (heart attack, stroke, heart disease) disease?

5. List 3 things that assist in the prevention of cardiovascular disease. _____

6. List 2 major risk factors for diabetes? _____
7. What does the National Heart Foundation recommend as the best form of exercise?
 - ☐ Brisk walking
 - ☐ Cycling
 - ☐ Swimming
 - ☐ Running
8. How much exercise does the National Heart Foundation recommend per day?
 - ☐ 10 minutes
 - ☐ 30 minutes
 - ☐ 60 minutes
 - ☐ 2 hours
9. How often should you exercise per week?
 - ☐ 3 times
 - ☐ 5 times
 - ☐ 7 times
 - ☐ 10 times

10. The percentage of Australian adults that experience anxiety or depression is:

- ☐ 20%
- ☐ 10%
- ☐ 5%
- ☐ 2%

11. What are the risk factors for bowel cancer?

12. How is bowel cancer detected? _____

13. List two methods by which we can treat prostate cancer? _____

14. The impotence rate in men over fifty is

- ☐ one quarter of all men
- ☐ over one third of all men
- ☐ over half of all men
- ☐ over two thirds of all men

15. What are two treatments for impotence? _____

16. How much fat is required in grams per day in our diet?

- ☐ About 10 grams per day
- ☐ About 30 grams per day
- ☐ About 40 grams per day
- ☐ About 50 grams per day

17. How much fibre is required per day in our diet?

- ☐ About 10 grams per day
- ☐ About 30 grams per day
- ☐ About 40 grams per day
- ☐ About 50 grams per day

18. Approximately every three days a person is fatally injured on a farm in Australia.

☐ **True** or ☐ **False**

19. List two diseases that are genetically linked?

20. What is the leading cause of death for Australian men?

- ☐ Cardiovascular Disease
- ☐ Cancer
- ☐ Diabetes
- ☐ Accidents, (including road) poisoning, injury, violence

21. How would you rate your current health status now?

- ☐ Poor
- ☐ Average
- ☐ Better than average
- ☐ Fantastic

22. How do you rate your weight and physical assessment indicators (blood pressure, cholesterol, weight)

- ☐ Poor
- ☐ Average
- ☐ Better than average
- ☐ Fantastic

23. Do you feel you have a good understanding of your health?

- ☐ Yes totally understand
- ☐ Not fully aware
- ☐ Have no idea at all
- ☐ Would like to know more

24. How would you rate the relationship between health and your farm productivity?

- ☐ Very Important
- ☐ Important
- ☐ Slightly important
- ☐ Not important

Thank you for you time and involvement

<insert name>



Sustainable Farm Families Pre/Post Knowledge Questionnaire (Women)

These questions give us the ability to assess your pre and post education knowledge and awareness and allow us to help better structure education sessions and teaching techniques. Please answer the questions listed; if you are unsure of the answer please leave the question blank. No names are required **but please fill in the U.I with the number on the back of your nametag.**

1. Who has the better health status metropolitan or rural women? _____
2. At what age do you think the average Australian female dies?
 - ☐ 65-70
 - ☐ 70-75
 - ☐ 75-80
 - ☐ 80-85
3. At what age do you think the average Australian male dies?
 - ☐ 65-70
 - ☐ 70-75
 - ☐ 75-80
 - ☐ 80-85
4. What are the 3 **major risk factors** for cardiovascular (heart attack, stroke, heart disease) disease?

5. List 3 things that assist in the prevention of cardiovascular disease. _____

6. List 2 major risk factors for diabetes? _____
7. What does the National Heart Foundation recommend as the best form of exercise?
 - ☐ Brisk walking
 - ☐ Cycling
 - ☐ Swimming
 - ☐ Running
8. How much exercise does the National Heart Foundation recommend per day?
 - ☐ 10 minutes
 - ☐ 30 minutes
 - ☐ 60 minutes
 - ☐ 2 hours
9. How often should you exercise per week?
 - ☐ 3 times
 - ☐ 5 times
 - ☐ 7 times
 - ☐ 10 times

10. The percentage of Australian adults that experience anxiety or depression is:

- ☐ 20%
- ☐ 10%
- ☐ 5%
- ☐ 2%

11. What are the risk factors for bowel cancer?

12. How is bowel cancer detected? _____

13. Women over 50 suffer a degree of incontinence, which interferes with daily life at the rate of:

- ☐ 70%
- ☐ 40%
- ☐ 25%
- ☐ 10%

14. What is hormone therapy? _____

15. What percentage of Australian women experience **mild to moderate** menopausal symptoms?

- ☐ 1 out of every 5 women
- ☐ 2 out of every 5 women
- ☐ 3 out of every 5 women
- ☐ 4 out of every 5 women

16. How much fat is required in grams per day in our diet?

- ☐ About 10 grams per day
- ☐ About 30 grams per day
- ☐ About 40 grams per day
- ☐ About 50 grams per day

17. How much fibre is required per day in our diet?

- ☐ About 10 grams per day
- ☐ About 30 grams per day
- ☐ About 40 grams per day
- ☐ About 50 grams per day

18. Approximately every three days a person is fatally injured on a farm in Australia.

- ☐ **True** or ☐ **False**

19. List two diseases that are genetically linked?

20. What is the leading cause of death for Australian women?

- ☐ Cardiovascular Disease
- ☐ Cancer
- ☐ Diabetes
- ☐ Accidents, (including road) poisoning, injury, violence

21. How would you rate your current health status now?

- ☐ Poor
- ☐ Average
- ☐ Better than average
- ☐ Fantastic

22. How do you rate your weight and physical assessment indicators (blood pressure, cholesterol, weight)

- ☐ Poor
- ☐ Average
- ☐ Better than average
- ☐ Fantastic

23. Do you feel you have a good understanding of your health?

- ☐ Yes totally understand
- ☐ Not fully aware
- ☐ Have no idea at all
- ☐ Would like to know more

24. How would you rate the relationship between health and your farm productivity?

- ☐ Very Important
- ☐ Important
- ☐ Slightly important
- ☐ Not important

25. With the increase in life expectancy the average years an Australian woman will spend with a physical handicap on average is:

- ☐ 14 years
- ☐ 10 years
- ☐ 5 years
- ☐ 2 years.

26 . How often should a breast self-examination and cervical smear be performed?

a. Breast Examination_____b.Cervical Smear_____

27. How often do you do a breast self examination and have cervical smear?

a. Breast _____ b.Cervical Smear_____

Thank you for you time and involvement

<insert name>



Appendix 10 Workshop evaluation

Sustainable Farm Families – Course Evaluation Form

ID Code Date:/...../..... Venue:

Session	1	2	3	4	5	6	7	8	9	10
Rank each question 1 2 3 4 Strongly Disagree Agree Strongly disagree agree	State of rural health	Cardio-vascular disease	Cancer	Farm health & safety	Diet and Nutrition Super-market tour	Stress	Wise women's business	Wise men's business	Action planning	Physical assessment
Training Sessions										
The session was successful in updating my <u>knowledge</u> about										
The session was successful in updating my <u>awareness of how I can influence</u> my health status										
I can see how I can <u>apply</u> the content of the session in my life and work										
There was appropriate balance between information giving, activities and questions										
The session was conducted at an appropriate pace ...										
I found the language and concepts easy to grasp ...										
Resource Kit										
The resource kit is an excellent guide and resource										
The resource kit is easy to read...										
Learning Outcomes										
I was an active learner in the session ...										
Course Organisation										
The organisation of the session positively assisted learning and understanding										

Are there any specific issues that you would like further information about or comments you would like to make?

Comments about the course overall (to be completed at the conclusion of the program)	
The venue and food were appropriate	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/> Comment:.....
The pre-course information was appropriate *	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/> Comment:..... <i>* Plain language statement, consent form, participation letter, final reminder letter</i>
I was <u>comfortable</u> with the format of the course and the discussions?	Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Agree <input type="checkbox"/> Strongly agree <input type="checkbox"/> Comment:.....
The course should be:	Longer <input type="checkbox"/> Shorter <input type="checkbox"/> More practical <input type="checkbox"/> Not changed <input type="checkbox"/> Comment:.....

Comments about the course overall (to be completed at the conclusion of the program)

Would you recommend the course to your friends or industry people? Yes ☐ No ☐
 Give reasons for your answer.

What did you like about the course overall?

What do you think could be improved?

If you were asked to justify to an organisation or another person why health should take on an increased importance in rural life, would you feel confident of being able to present a good argument? Please explain briefly.

Did the program make you feel more empowered about men's / women's health?

Appendix 11 Participant action planning

SUSTAINABLE FARM FAMILIES ACTION PLAN – YEAR 1

NAME: _____

(Please Print Name)

PROGRAM VENUE:

<i>Action</i>	<i>How I plan to achieve my action</i>	<i>How I can share my actions and outcomes with the group</i>
<i>Eg 1: Reduce my weight</i>	<i>Plan to walk 5 mornings for 20 minutes; join the bowls club.</i>	Report on weight loss and success of activities.
<i>Eg 2: Improve farm OH&S</i>	<i>Do OH&S Audit; build chemical shed.</i>	<i>Share OH&S Audit outcomes.</i>
1.		
2.		
3.		

Please indicate if you wish us to send you specific assistance literature and resources to help with any of your goals.

Signed: _____ Date: _____

Send this form back in the enclosed reply paid envelope

Put this somewhere you will read it each day

(the loo is a good spot)

1. No one can ruin your day without YOUR permission.
2. Most people will be about as happy, as they decide to be.
3. Others can stop you temporarily, but only you can do it permanently.
4. Whatever you are willing to put up with is exactly what you will have.
5. Success stops when you do.
6. When your ship comes in, make sure you are willing to unload it.
7. You will never "have it all together."
8. Life is a journey...not a destination. Enjoy the trip!
9. The biggest lie on the planet: "When I get what I want, I will be happy."
10. The best way to escape your problem is to solve it.
11. I've learned that ultimately, 'takers' lose and 'givers' win.
12. Life's precious moments don't have value, unless they are shared.
13. If you don't start, it's certain you won't arrive.
14. We often fear the thing we want the most.
15. He or she who laughs.....lasts.
16. Yesterday was the deadline for all complaints.
17. Look for opportunities...not guarantees.
18. Life is what's coming....not what was.
19. Success is getting up one more time.
20. Now is the most interesting time of all.
21. When things go wrong.....don't go with the flow.

Author Unknown

Appendix 12 Action plan achievement

The Martin Performance Scale

- 5 Great results! Beyond my expectations
- 4 Had an impact that others could see
- 3 Followed through with moderate results
- 2 Got started for a few weeks
- 1 Thought about it
- 0 Did absolutely nothing

Appendix 13 Business decisions survey



BUSINESS DECISIONS SURVEY

Sustainable Farm Families

A key objective of the Sustainable Farming Families project is to evaluate the impact of this health education and research program on farm families' business decisions. This survey is intended to help in gathering data that will allow us to undertake this evaluation. As with the other survey data collected as part of this project, your response will remain confidential to the project team.

QUESTIONS:

1. What is a 'business decision' for you?

(please tick only one of the following options that best summarises your view)

- ☐ A decision with financial implications
 - ☐ All farming decisions are business decisions
 - ☐ 'Big' decisions which change the way that you do things
 - (eg, new wool shed, change of enterprise)
 - ☐ Making the best use of all your resources (including people)
 - ☐ Decisions about operational processes
 - ☐ Other? (Please specify) _____
-

2. Can you list the five main factors that influence your business decisions?

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

3. How often do you consider significant change (eg time of calving, level of debt, sowing mix, enterprise change) to the enterprises on your farm? (please tick only one of the following options that best summarises your view)

- ☐ Every few months
- ☐ Once a year
- ☐ Whenever we have a bad year
- ☐ When I see a real new opportunity
- ☐ When another member of the family, neighbour or colleague suggests it

☐ Other? (Please specify)

4. **What are the major factors you consider when making a decision about significant change?** (please tick any of the following options that apply to you)

- ☐ Investment risk
☐ Quality of family life
☐ Your health
☐ What you will be able to pass on to your children
☐ Impact on farm management / organisation
☐ Profitability
☐ Impact on the land
☐ Other? (Please specify)_____

5. **Has the sustainable farm families program prompted you to think differently about managing the work on the farm?**
(please tick any of the following options that apply to you)

- ☐ Recruiting additional staff?
☐ Taking holidays more regularly?
☐ Spending more time with family?
☐ Changing the enterprises?
☐ Specific action to improve your health (eg. weight loss, walking more)?
☐ Adopting different farm management systems?
☐ Improving farm safety practices?
☐ Increased use of contractors
☐ Other? (Please specify)_____

6. Do you think that improving your health helps you to make better business decisions?

- ☐ Yes
☐ No
☐ Not sure

What are your reasons for giving this response?_____

7. **Which aspects of improving your health and safety make a real difference to your business decision-making?** (see Q.1 for response to business decisions)
Please rank these from '1' to '5', with '1' as the most important

- _____ Better physical fitness?
_____ Less concern about stress?
_____ Better diet?
_____ Better farm safety practices?
_____ Better understanding of the impact of poor health?

Please note any other aspects: _____

8. **Which aspects of improved health and safety make a real difference to your general contribution to work on the farm?**

(please rank these from '1' to '5', with '1' as the most important, and 5 as the least important)

- _____ Better physical fitness?
- _____ Less concern about stress?
- _____ Better diet?
- _____ Better farm safety practices?
- _____ Better understanding of the impact of poor health?

Please note any other aspects: _____

9. Since doing the Sustainable Farm Families program has your amount of leisure time?

(please tick **one** of the following options that apply to you)

- ☐ Increased
- ☐ Stayed about the same
- ☐ Decreased
- ☐ Other? (Please specify) _____

10. Since doing the SFF program have your on farm working hours?

(please tick **one** of the following options that apply to you)

- ☐ Increased
- ☐ Stayed about the same
- ☐ Decreased
- ☐ Other? (Please specify) _____

Any other comments about the relationship between farm family health and safety on farm business decisions

Thankyou

Appendix 14 Benchmark template



Sustainable Farm Families



1st Australian Government Subsidy



Co-funded by:
 Victorian Government
 Rural Industries Research & Development Corporation
 South Australia Research & Development Corporation
 Western Australia Research & Development Corporation
 New South Wales Research & Development Corporation
 Queensland Research & Development Corporation
 Northern Territory Research & Development Corporation

Personal Health Indicators - Input Data - Female

This data should be collected at the completion of daylight saving, for the last 12 month period.

The Personal Health Indicator sheet is based on the Sustainable Farm Families project, coordinated by Western District Health Service, Hamilton, and funded by the Joint Research Venture on Farm Health and Safety, which is managed by the Rural Industries Research & Development Corporation and supported by RMIT University, Farm Management 500, LandConnect Australia, Victorian Farmers Federation, Department of Primary Industries and Australian Women in Agriculture.

NAME _____

AGE _____

GROUP _____

Year

--	--	--	--	--

Av.

Key Performance Indicators:

1. Waist Measurement

--	--	--	--	--

cm

2. Body Mass Index

weight

--	--	--	--	--

kgs

height

--	--	--	--	--

metres

3a. Blood Pressure

systolic

--	--	--	--	--

systolic

3b.

diastolic

--	--	--	--	--

diastolic

4. Fasting Blood Sugar

--	--	--	--	--

mmol

(After 12 hour fasting period)

5. Fasting Cholesterol

--	--	--	--	--

mmol

(After 12 hour fasting period)

6. Heart Risk Assessment

--	--	--	--	--

Do you have a family history of Heart Problems? No = 1 Yes = 3

Health Checks:

7. How long since your last G.P. check?

--	--	--	--	--

years

9. If you are over 50, how long since your last breastscreen test?

--	--	--	--	--

years

10. How long since your last pap smear test?

--	--	--	--	--

years

11. How long since your last dental check?

--	--	--	--	--

years

12. If you are over 40, how long since your eyes were checked?

--	--	--	--	--

years

13. Safety

(a) How long since your last Worksafe audit?

--	--	--	--	--

years

(b) On-farm Injury Record

Severe injuries

--	--	--	--	--

no.

(No. of injuries for whole business in the last 12 months)

Medium injuries

--	--	--	--	--

no.

Slight injuries

--	--	--	--	--

no.

Disclaimer: The information provided is intended only for guideline purposes.
 Professional medical/health advice should be sought where appropriate.

1 of 2

Personal Health Indicators - Input Data - Female

This data should be collected at the completion of daylight saving, for the last 12 month period.

Health Drivers:

Year

					Av.
--	--	--	--	--	-----

14. Exercise How often do you exercise? times per week

The guideline is: 30 mins. Brisk walking, Swimming, Gym, etc. per session, 5 times/week

						weekly
--	--	--	--	--	--	--------

15. Diet

A. When choosing packaged foods, do you

- 1 = Read the labels & understand the contents?
- 2 = Read some labels, but buy for budget/enjoyment?
- 3 = Don't look at labels - just buy?

--	--	--	--	--	--

B. How many serves of vegetables, incl. legumes, do you eat/day?

--	--	--	--	--	--

C. How many pieces of fruit do you eat per day?

--	--	--	--	--	--

D. What type of dairy products you consume?

1 = Full Fat, 2 = Reduced Fat, 3 = Skim

--	--	--	--	--	--

16. Sun Protection

Do you wear a broad brimmed hat?

wear sunglasses?

wear longsleeves?

use sunscreen 30+?

How many of these 4 do you do?

--	--	--	--	--	--

Last sunspot check?

						years
--	--	--	--	--	--	-------

17. Smoking Do you ever smoke?

1 = Yes, 2 = Quitting, 3 = No

--	--	--	--	--	--

18a. Alcohol Consumption

No of Days/Week with no alcohol?

						free days per week
--	--	--	--	--	--	--------------------

18b. On days that you drink alcohol,

how many standard drinks per day do you have?

						standard drinks/day
--	--	--	--	--	--	---------------------

19. Time Out a. daily hours/day <1 2 >3

b. weekly days/week 0 1 >2

c. annual weeks/year <1 2-3 >3

						hrs/day
--	--	--	--	--	--	---------

						days/week
--	--	--	--	--	--	-----------

						weeks/year
--	--	--	--	--	--	------------

Disclaimer: The information provided is intended only for guideline purposes. Professional medical/health advice should be sought where appropriate.

2 of 2



Sustainable Farm Families



Planning Health Indicators Report - Female



NAME JOANNE BLOOS
AGE 39
GROUP HAMILTON

Key Performance Indicators:

1. Waist Measurement cm

2. Body Mass Index (BMI) Ratio

3a. Blood Pressure - systolic

3b. Blood Pressure - diastolic

4. Fasting Blood Sugar mmol

5. Fasting Cholesterol mmol

6a. Heart Risk - Family History

6b. Heart Risk Assessment

Year										Target		
2001	2002	2003	2004	2005	2006	2007	7 yr. Av.	Group Av.		Good	Avg	Bad
100	100	100	100	100	100	100	100			<94	94-99	>99
25	25	25	25	25	25	25	25			<30	30-34	>34
120	120	120	140	120	120	120	120			<135	135	>140
80	80	80	80	80	80	80	80			<80	80	>80
5.5	5.5	5.5	5.5	5.5	5.7	5.7	5.5			<5.5	5.5-5.9	>5.9
4.2	5.5	5.5	5.5	5.5	5.5	5.5	5.2			<5.5	5.5-4.5	>4.5
0	0	0	0	0	0	0	0			0	0	1
0	0	0	0	0	0	0	0			<0	0-2	>2

Includes waist, weight, blood pressure, blood sugar, cholesterol, smoking, high fat diet, exercise, family history.

Health Checks

7. How long since your last GP health check?

8. If you are over 50, how long since your last breastexam?

10. How long since your last pap smear test?

11. How long since your last dental check?

12. If you are over 40, how long since your eyes were checked?

13. How long since your last Workplace Audit?

On-farm Injury Record points

Each injury is given points depending on it's severity - severe = 12 points, moderate = 4 and slight = 1

2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1			<0	0-1	>1
0	0	0	0	0	0	0	0			<0	0-2	>2
2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0			<0	0-2	>2
0	0	0	0	0	0	0	0			<0	0-1	>1
0	0	0	0	0	0	0	0			<0	0-5	>5
0	0	0	0	0	0	0	0			<0	0-2	>2
0	0	0	0	0	0	0	0			<0	0-5	>5

The following table shows the number of points for each injury type. The number of points for each injury type is shown in the table. The number of points for each injury type is shown in the table. The number of points for each injury type is shown in the table.

Disclaimer: The information provided is intended only for positive purposes. Professional medical advice should be sought when appropriate.



Sustainable Farm Families

Farm management 500

Personal Health Indicators Report - Female



NAME JOANNE BLOGGS
AGE 35
GROUP HAMILTON

	Year								2001-2007 Avg		
	2001	2002	2003	2004	2005	2006	2007	2 yr. Avg	Group Avg	2001-2007 Avg	2001-2007 Avg
Health Drivers:											
14. Exercise times	1	1	1	2	3	4	5	2.43857	1	1-2 times	3-4 times
15. Diet											
A. When shopping for food products, do you:											
1 - Read the labels & understand the contents?	1	1	2	2	3	3	4	2			
2 - Read some labels, but buy for budget/convenience?	2	2	2	2	2	2	2	2.0		< 2	2-4
3 - Don't look at labels - just buy?	3	3	3	3	3	3	3	3.0		> 4	
B. How many servings of vegetables/day?	1	1	1	2	2	2	2	1.6		0	1
C. How many pieces of fruit do you eat/day?	1	1	1	2	2	2	2	1.6		0	1
D. What type of Dairy Products do you consume?	1	1	1	2	2	2	2	1.6		Full Fat	Reduced Fat
16. Sun Protection											
Do you:											
wear a broad brimmed hat?	2	2	2	3	3	3	3	2.6		1 or less	2 or more
wear sunglasses?	2	2	2	3	3	3	3	2.6		1 or less	2 or more
wear long sleeves?	2	2	2	3	3	3	3	2.6		1 or less	2 or more
use sunscreen 30+?	2	2	2	3	3	3	3	2.6		1 or less	2 or more
Last sunspot check? (Years)	1	1	1	2	2	2	2	1.6		< 1 year	1-2 years
17. Smoking	1	1	1	2	2	2	2	1.6		1 - Yes	2 - No
18a. Alcohol Consumption - No. of days/week with no alcohol?	1	1	1	2	2	2	2	1.6		None	1-2 days
18b. When you drink alcohol, how many standard drinks do you have?	4	4	2	2	2	2	2	2.6		< 4 drinks	4-12 drinks
19. Time Out											
a. daily	2	2	3	3	4	4	4	3.1		< 1	2-3
b. weekly	1	1	1	2	2	2	2	1.6		0	1
c. annual	1	1	1	2	2	2	2	1.6		< 1	2-3

Disclaimer: The information provided is intended only for guidance purposes. Professional medical advice should be sought when appropriate.

Appendix 15 Copy of sample abstracts for conferences

Rural Health Conference – Going for Gold Ballarat 19-21 April 2006

Sustainable Farm Families Project: Striking it Lucky or Effective Health Promotion?

Susan Brumby¹, John Martin², Stuart Willder³
1 & 3 Western District Health Service, 2 La Trobe University

Abstract

In 2005 we reported on the background and process of the Sustainable Farm Families project, an innovative health education program for farming families across Victoria, South Australia and southern New South Wales. The project has since been recognised with three prestigious health and research awards and in 2006 will complete its third and final year. Further extension into other farming industries including the Victorian Dairy industry has occurred and a pilot program training other rural health professionals. The results from the first two years already tell us much about the way in which we can design local rural health programs for more effective outcomes. In this paper we will report on findings relating to the health and well being of participating farm families. Specific health differences between genders and industries will be highlighted. The results to date tells us that the work practices in different farming industries impact on the lifestyles of farmers in these industries, information which is important for health services as they design and deliver programs for their local rural communities.

Key words: health education, rural health services, gender differences, farmer health and well being

9th National Rural Health Conference Standing up for Rural Health: Learning from the past, Action for the future The politics and economics of early intervention

Early Intervention in Farming Family Health: Making informed life choices for sustainable family farming.

Susan Brumby, John Martin and Stuart Willder

Abstract

The SFF Project (www.sustainablefarmfamilies.org.au/) has now completed the first three years of its research with broad acre farmers in Victoria, South Australia and New South Wales. The third party economic evaluation reports that the program has had significant outcomes for farmers participating in this program. Using clinical indicators alone the evaluators have confirmed that this evidence-based program, engaging with farming families in an educative and proactive manner, has empowered them to make a difference in their health status and to sustain this over the three years of the project.

In addition to the clinical indicators the research team also collected qualitative data based on responses to questions put to farmers about their understanding and beliefs of health and well being and its impact on their farming family business. This paper reports on farmer responses over the three years and includes anecdotal evidence on the choices they make in the light of their greater understanding of the causes and outcomes of their personal health and well being.

It makes recommendations supporting early intervention including a proactive response from farmer associations, rural health services and government to assist family-based farms to make decisions about their future in farming which includes information on the health and well being of the family members working the farm.

Appendix 16 Copy of sample media articles

Weekly Times, September 24, 2003

Focus

25

Bid to elevate health as a key farm issue

By JOHN PARRY

A PROGRAM to raise the health status of farmers has been launched in Victoria.

The Sustainable Farm Families project will run for three years and focus on the health of men and women on farms.

Western District Health Service community services director Susan Brumby said the project aimed to address the anomaly between the resources devoted to improving farm management and the little done on people themselves.

"There is no point in having a more profitable bottom line if you are not there to enjoy it," Ms Brumby said.

The program will be undertaken primarily with Farm Management 500 members and other farmers in groups within a 100km radius of Hamilton, Bendigo, Swan Hill, Horsham, Hamilton and Clare, in South Australia.

Farmers will participate in an initial two-day health check program, with reviews at 12 and 24 months.

Ms Brumby said farm families would have the opportunity to look at the relationship between their environment, workplace, health and risk factors.

"It promises to be fun, worthwhile and to produce positive benefits for rural communities," she said.

The project is organised jointly by Western District Health Services, RMIT Hamilton, Farm Management 500 and Land Connect, with funding from the Rural Industry Research Development Corporation.

"The project is a diverse partnership with industry, health, training, research, education and farming organisations all coming together to assess and challenge the health status of farmers," Ms Brumby said.

RURDC is providing \$256,000 over three years and industry another \$100,000, bringing the total budget to \$356,000.

Farm Management 500 will include the results in its business planning indicators for financial and natural resource management.

The project also has support from the Victorian Farmers Federation, Australian Women in Agriculture, FarmLink, the Foundation for Australian Agricultural Women and the Department of Primary Industries.

For details, phone Ms Brumby on (03) 5551 6460.



Susan Brumby

New project aiming to boost health of farming families

A NEW project to improve the health of farming families has been launched in Victoria.

The Sustainable Farm Families project will run for three years and focus on the health of men and women on farms.

Western District Health Service community services director Susan Brumby said the project aimed to address the anomaly between the resources devoted to improving farm management and the little done on people themselves.

"There is no point in having a more profitable bottom line if you are not there to enjoy it," Ms Brumby said.

The program will be undertaken primarily with Farm Management 500 members and other farmers in groups within a 100km radius of Hamilton, Bendigo, Swan Hill, Horsham, Hamilton and Clare, in South Australia.

Farmers will participate in an initial two-day health check program, with reviews at 12 and 24 months.

Ms Brumby said farm families would have the opportunity to look at the relationship between their environment, workplace, health and risk factors.

"It promises to be fun, worthwhile and to produce positive benefits for rural communities," she said.

The project is organised jointly by Western District Health Services, RMIT Hamilton, Farm Management 500 and Land Connect, with funding from the Rural Industry Research Development Corporation.

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For details, phone Ms Brumby on (03) 5551 6460.



Project members including Susan Brumby and other stakeholders.

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FARMING FOCUS

Editorial contacts: Sue O'Brien, Nathan Anderson Phone: 5372 1001 Fax: 5372 1800 Email: sponow@spec.com.au

Farmer's health examined

By JOHN PARRY

THE health of farmers and their families — and the impact on their farm's productivity — has been examined in a workshop in Hamilton over the past few days.

As part of the Sustainable Farm Families project, a group of 15 farmers and their families were invited to a two-day health check program, with reviews at 12 and 24 months.

The project is organised jointly by Western District Health Services, RMIT Hamilton, Farm Management 500 and Land Connect, with funding from the Rural Industry Research Development Corporation.

"The project is a diverse partnership with industry, health, training, research, education and farming organisations all coming together to assess and challenge the health status of farmers," Ms Brumby said.

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For details, phone Ms Brumby on (03) 5551 6460.



Project members including Susan Brumby and other stakeholders.

Ground breaking rural project recognised with health award

WESTERN District Health Service director of community services, Sue Brumby, has received an award for services to rural health as part of Rural Health Week last week.

Ms Brumby received the professional award for her commitment to rural health and the well-being of rural farming communities.

Health Minister Brown presented the award at the inaugural Rural Health Conference in Bendigo.

Ms Brumby has been with WDHSS since 2002 and is the principal investigator in the Sustainable Farm Families project.

WDHSS chief executive, Jim Fletcher, said the award was "very significant and prestigious".

Ms Brumby, who joined WDHSS in April 2003 after four years with Western District Health, before joining Regional

Health, Ms Brumby managed the family's farm for a number of years and has a background in industry and research.

Rural health was an important issue to tackle, she said.

"Most rural people don't enjoy as good health as their metropolitan counterparts."

This was because of a number of factors, she said, including distance from health care, a more "do-it-yourself" attitude and seeing up their symptoms until they have a number of problems to take to the doctor.



Susan Brumby - rural health award for ground breaking project.

HAMILTON SPECTATOR, Saturday, May 28, 2006 - Page 8

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[illegible]

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- 6. **How long to take each day?**
- 7. **How to take it?** (e.g., with food, on an empty stomach, with or without alcohol)
- 8. **Precautions to observe** (e.g., avoid alcohol, avoid driving)
- 9. **How to store it?** (e.g., in a cool, dry place, away from light)
- 10. **How to dispose of it?** (e.g., in a sealed container, in a trash can)
- 11. **How to handle it?** (e.g., wear gloves, avoid contact with skin)
- 12. **How to use it?** (e.g., in a clean, dry container, in a clean, dry area)
- 13. **How to store it?** (e.g., in a cool, dry place, away from light)
- 14. **How to dispose of it?** (e.g., in a sealed container, in a trash can)
- 15. **How to handle it?** (e.g., wear gloves, avoid contact with skin)

New research into summer-active pastures



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And, "I'm a strong believer in health and the mind-body connection. My theory is that stress-management and fitness are two of the most important tools for staying 'balanced' and that, once that foundation is strong, you can take on anything." —*Michelle Williams*

Williams is not just a fan of the mind-body connection; she's an expert on the subject. In her new book, *Open Mind*, she explains how to use the power of the mind to improve your health and happiness. She also shares her own experiences with stress and how she overcame it. Williams is a strong believer in the power of the mind-body connection and she's got the proof to back it up. In her new book, *Open Mind*, she explains how to use the power of the mind to improve your health and happiness. She also shares her own experiences with stress and how she overcame it.

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Appendix 17 Copy of SFF Newsletter Vol. 1, Issue 1

28/05/2004
Volume 1, Issue 1

Western District Health Service

Farmmanagement 500

 An Australian Government Initiative

 **Farm Health & Safety**
Agribusiness & Technology
 Rural Industries R&D Corporation
 Green R&D Corporation
 Meat & Livestock Australia
 Australian Wool Innovation Ltd
 Sugar R&D Corporation
 Canola R&D Corporation
 Dairy Australia
 Horticulture Australia Ltd

 **RMIT UNIVERSITY**


Sustainable Farm Families Newsletter is produced in collaboration with the above partners.
 Principal Investigator
 Sue Brumby
 Principal researcher
 Stu Wilder
 Phone 55518450 for further information.

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<i>What did you say</i>	3
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<i>Want more fibre?</i>	4

- Remember to keep your action plans active in your mind as we expect to hear about the progress you have made when we return to each of the areas in 2004 and 2005.
- It's never too late to address these!
- Everyone should have 1 or 2 alcohol free days per week

Are you turning your back on SAFETY???

Sustainable Farm Families Newsletter

Well here we are at the end of year one!!!

Congratulations to all who have been involved in what many believe to be a ground breaking program for farming families.

The end of year one has seen groups run at Benalla, Horsham, Clare, Swan Hill and two groups in Hamilton .

A total of 127 participants were involved in the project and this included 69 men and 58 women representing approximately 35 farm families.

This included 109 FM500 members, 12 members from the VFF, 2 from AWIA and 4 other interested members from the public.

Industries involved in-

cluded beef, lamb, wool, rice, dairy, viticulture and cropping.

Participants were from three states, Victoria, South Australia and New South Wales.

Highlights for the project in year 1 included successful attainment of the following goals

- delivery of education programs to the designated areas
- registration and data collection on all participants.
- meeting target numbers required, and
- All within budget

Other highlights included visits by Senator Judith Troeth, Parliamentary

Secretary DAFF, Mr. David Koch MLC, Mr. David Hawker MHR and Mr. Hugh Delahunty MLA who all found the workshops to be of great value.

Aims for 2004-2005 include establishing the visits for our second year workshops, keeping you all motivated, maintaining accurate statistical data and reporting to you all through our second year the results of the project.

In closing we hope you all enjoy this newsletter and encourage you to contact us if you require any further information.

Parliamentary Visit to the Hamilton Group



The Hamilton Group ran in April 2004 was attended by numerous parliamentary guests who had positive comments for the project and its significant need to rural Australia.

Pictured from left include David Koch, John Marriott, Sue Brumby, Stu Wilder, Senator Judith Troeth, David Hawker, Victoria Mack and Professor John Martin. Absent from this photograph was Hugh Delahunty-MLA.

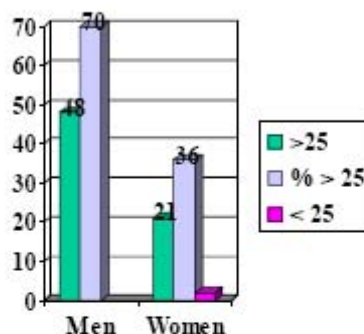
Some Preliminary Results for your interest

Well no doubt you all will be wondering how did it all pan out in the wash? Was South Australia fitter than Vic or did NSW take the trophy home?

We don't want to disappoint you but whilst all groups had some minor differences in readings and results, these will only become more evident as the project continues.

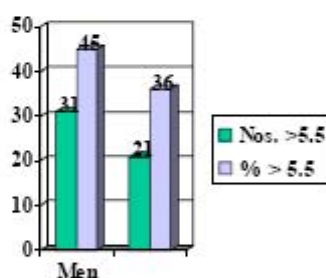
Firstly we look at how the project, as a whole, progressed with significant focus on some of the physical findings.

Body Mass Index >25



The graph to the left defines the Body Mass Index (BMI) results for all participants in the project. This figure is obtained by dividing your weight and height measurements. This is then plotted within set ranges, 20-25, being normal values for men and 20-28 for females. As you can see there were 48 men over the 25 BMI range which equates to 70 % of all males. There were 21 females which equates to 36% above the recommended range. 2 women were underweight with a BMI of less than 20

Fasting Cholesterol



The graph to the left highlights the cholesterol results for all participants. The results reveal a 45% incidence of males with a cholesterol over the 5.5 mmols level and a 36% rate for the. Medical specialists believe that levels above 5.5 indicate a increased risk for vascular disease such as heart disease and strokes.

These results are common in rural communities and reveal some concern in relation to their positive link to cardiovascular, stroke and vascular diseases. Remember we cannot reverse the buildup of cholesterol in the blood vessels.



Remember that fruit and vegetables are some of the best sources of fibre and nutrients in our diet

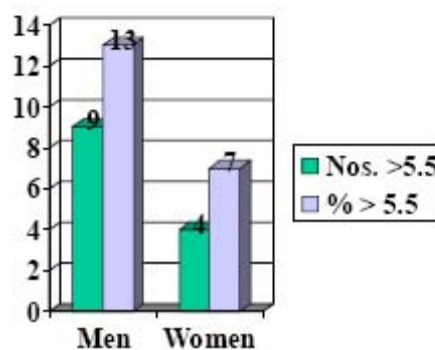
The graph to the right is an important graph in revealing the fasting blood sugar results of participants who have levels above the 5.5 mmols for a fasting test. The information re diabetes indicates some concern about individuals with 10 hour fasting sugar levels of above 5.5 mmols. 13% of men and 7% of women recorded levels above 5.5 mmols.

Individuals with elevated levels as a fasting test over the 5.5 range may be at risk in the future of developing type 2 diabetes.

It is important to remember the education principles re the glycaemic index and the way in which foods release their carbohydrates and the effects on blood sugar levels.

For more information go to www.betterhealth.vic.gov.au/ and follow the links to diabetes and glycaemic index.

Fasting Blood Sugar



"A Prompt from the Professor"

Keeping track of our new healthy living plan can be a bit difficult as we attend to the daily task of running our farms. How can you keep a record of relevant information to support your Sustainable Farm Families action plans? Of course it depends on what you have set out to achieve, but how about

- a weekly reflection with the family over

a healthy dinner on what you have achieved in the past week and what you might do differently next week.

- Keep a record of actual times of planned activity (walking, catching up with friends etc).
- Take physical measures less frequently (weight, height if you need to grow!), and don't be

preoccupied with them.

- Discuss how the farm safety changes are going and what you have learnt
- Most of all enjoy the modest challenges you have set and enjoy the time out from your busy schedule.

Best wishes, John



The benefits of wine are well documented so remember to incorporate some in your diet!!

What did you say ??

Victoria Mack Land Connect collated the data on your comments throughout the course and from the evaluations. The comments were certainly indicative of how you felt the program operated and examined the thoughts of each session, as well as the presenters.

These comments are essential in the continuous improvement process for future sessions and below are some participants comments from Victoria report .

'I enjoyed the two days and feel it was a worthwhile use of my time and have gained new knowledge that would improve my life'

'Very informative two days - well done,

'Well done to all involved in this pilot program'

'Looking forward to the 12 month refresher'

'A very worthwhile and

well run course'

'Shopping will never be the same'

'Great stuff. Thanks for the opportunity to attend'

'Thank you, well done, great course..... (lots of comments!!)'

On the question- Would you recommend the course to others

100% of participants said 'Yes!'

Remember that a little exercise per day is far better than trying to dedicate an hour or more to it.

Take it slow and you will win the race

Useful Information on the net

To give you some information which is both useful and accurate on the internet we recommend the better health channel which is government supervised and has great links to medical information and sites.

The web site is www.betterhealth.vic.gov.au/

Some of the better sites within this include the easy guide for medications and their uses which is pretty important if you are prescribed any drugs in the future.

Link to the library and the medicine guide for this

Another link is the health conditions which is through the topics site in the left hand corner.

Feel free to explore the web site as it is fairly easy to tour and gives heaps of easy to understand information

Go for it!!
www.betterhealth.vic.gov.au/



Are you turning your back on SAFETY???



Remember the issues we discussed re farm safety and how it effects your farm?

Remember the significant discussion that was brought up in each of the groups and how we focused on the issues around getting safety as a real issue in our workplace. The government is already aware of farm safety and this has been highlighted specifically regarding tractor accidents.

Keep in mind the injuries and accidents that can occur on the farm and remember that this is your workplace and often the place where your family live and play. Making it safer today will make it easier in the future. Farm safety was certainly one of the major areas that all groups highlighted where significant improvements could be made.

We look forward to your action plan reports.

Want some extra fibre in your life??

Well many witnessed the education and training of the Professor throughout the project and he is only too happy to admit that he did have his well educated eyes opened to the many relevant aspects of health.

John, a keen bike rider and being a gent on the upper side of 45 is well aware of the effects of time, aging and the need to maintain ones body shape and physical fitness.

John has included for you all a little recipe from his GI diet book which is sure to increase the fiber content to an accept-

able level within the diet.

Be aware that these museli bars can provide enough gaseous energy to reach Mars and back so go very gently on this one for the first few days.

On the serious side the books within the following web site are excellent for increasing your knowledge and awareness of glycaemic index and weight management.

Go to www.glycaemicindex.com for further info

Here is Johns Recipe for gas, I

The 'Home made Museli Bars' recipe (from Rick Gallop 2002 The GI Diet, Virgin Books)

200g wholemeal flour
Sweetener (equivalent to 75g sugar)
2tsp baking powder
15g wheat bran
1 tsp ground cinnamon
1 tsp allspice
1/2 tsp ground ginger
1/2 tsp salt (optional)
150g rolled oats
160g apricots (finely chopped)
70g sunflower seeds, shelled
175ml apple sauce (unsweetened)
115ml apple juice
3 omega -3 eggs
2 tsp vegetable oil



If all else fails with the attached recipe an apple or two will get you on your way!!

1. Line a shallow 20 x 30cm baking dish with parchment paper.
2. Mix the flour, sweetener, baking powder, bran and spices in a large bowl. Stir in the oats, apricots and sunflower seeds.
3. Mix the apple sauce, apple juice, eggs and oil, and add to the flour mixture.
4. Pour into the baking dish and spread evenly.
5. Bake at 200 degrees C for about 15-20 minutes, or until lightly brown. Let cool and cut into bars.

Makes 16 bars

See you soon Sue and Stu.....

Living Longer on the Land

Sustainable Farm Families in Broadacre Agriculture

RIRDC Publication No. 08/048

The current health of all Australians is an important ongoing political priority and significant resources have been allocated to determine the current health status and the needs of both metropolitan and rural/remote populations. This report provides a glimpse of the current health status of rural farming families. It increases our understanding of what affects farming families' health and identifies measures to improve their health, well-being and safety. Many of the specific strategies to improve farming family health were provided by farmers themselves.

The report is targeted at those involved in rural health, agricultural industries and the farming workforce, with particular emphasis on those involved in policy and resource allocation decisions. Research bodies including universities, health services and agricultural industries will find the information useful in future planning to effectively service the needs of Australian agriculture.

The Collaborative Partnership for Farm Health and Safety is a joint venture that was established in 2001 with the Rural Industries R&D Corporation, Australian Wool Innovation, Cotton R&D Corporation, Grains R&D Corporation, Meat & Livestock Australia and the Sugar R&D Corporation. The partnership is managed by RIRDC.

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