
MENTAL HEALTH IN THE RURAL SECTOR

A REVIEW

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7/8/2012

NOTES:

This report was commissioned by FARMSAFE in response to the high rate of rural suicide in New Zealand, to inform FARMSAFE about current initiatives and interventions to help address this topic, both in New Zealand and Internationally.

Recommendations made to FARMSAFE by the author resulting from this report are currently under consideration.

FARMSAFE wish to acknowledge the contributions from a range of organisations and individuals who contributed and shared information and statistics with the researcher to inform this piece of research.

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(1) INTRODUCTION: The purpose of the review.

Farmsafe's mission is about creating safer rural communities. Traditionally Farmsafe has had a strong focus on personal safety, however as the business has developed we have become increasingly aware of the alarming number of suicides in the farming sector. Farmsafe is now exploring a wider strategy to encompass mental health within the organisations mission.

In the Global Burden of disease study commissioned by WHO and the World Bank, five of the top ten disease burdens were mental disorder. These were unipolar depression, alcohol abuse, bipolar disorder, schizophrenia and obsessive compulsive disorder. Depression was ranked fourth in relation to disability-adjusted life years (DALY) lost. By 2020 it was projected that depression would be the second leading cause of DALY, with Ischaemic Heart Disease first.¹

August 2011, Chief Coroner publically released provisional national suicide statistics. The Coroner noted "The suicide toll is a really concerning commentary on our society, and I believe that anything we can do to aid more accurate information can only be for the better....The statistics show that what we have done in the past is not bringing the toll down, so we must look for new solutions."

Coronial data records a triple fold increase in rural suicides year 2008-2011 averaging 25 completed rural suicide deaths per year. Nationwide, 558 completed suicide deaths, June 2010 – 2011. Attempted suicides that police attend to annually, is 20 times the national completed suicide toll and 2,500 hospital admissions (data only relates to those that require admission of 2 days or more)annually.

- The review examined demographic statistics, comparing rural data with the general population
- Attempted to ascertain agricultural industry responses or lack of response to issues raised in relation to rural suicide and mental health problems in the rural sector.
- The review analysed "events" or "influences" that impact on mental health issues in NZ rural populations.
- Examined current work being done within the rural mental sector, both at a local level and at a national level
- Literature search
- Explored other rural economies research responses to rural mental health issues and rural educational programmes.
- Recommends possible educational interventions that could be developed for application with in the NZ rural context.

The review shows that mental health educational training and strategies strengthens rural communities resilience, develops mental health literacy and lessens the stigma associated with mental health and depression.

¹ WHO, Global Burden of Disease 1996. p43

2. NEW ZEALAND CORONIAL DATA AND RURAL WORKPLACE DEATH STATISTICS

Coronial data records a triple fold increase in rural suicides year 2008-2011 averaging 25 completed rural suicide deaths per year. Nationwide, 558 completed suicide deaths, June 2010 – 2011 and Police attend per year, 20 -30 attempted suicides for every completed suicide. There are approximately 2,500 hospital admissions for attempted suicide annually,(data only relates to those that require admission of 2 days or more.)

2.1 CORONER STATISTICS

(a) RURAL SUICIDE DEATHS 1 JULY 2007 – 30 APRIL 2012²

2007	2008	2009	2010	2011	2012	TOTAL
11	23	25	25	17	6	87

(b) MALE AND FEMALE PROVISIONAL SUICIDE DEATHS AND RATES PER 100,000 POPULATIONS: JULY 2007 AND JUNE 2011³

YEAR	MALES		FEMALES		M/F RATE/RATIO
	Number	Rate	Number	Rate	
2007/08	405	19.35	134	6.15	3.02:1
2008/09	394	18.61	137	6.23	2.87:1
2009/10	401	21.44	140	6.29	2.85:1
2010/11	419	19.36	139	6.2	3.01:1

(c) PROVISIONAL SUICIDE DEATHS BY CORONIAL REGION 1 JULY AND 30 JUNE⁴

CORONIAL COURT	2007/08	2008/09	2009/10	2010/11
AUCKLAND	155	146	139	151
CHRISTCHURCH	92	70	80	89
DUNEDIN	37	50	60	45
HAMILTON	48	68	55	49
HASTINGS	35	32	32	37
PALMERSTON NTH	53	53	54	53
ROTORUA	35	53	44	60
WELLINGTON	64	40	57	52

² DOC: SC 2012-60307 Information Coroners Office Page 1

³ DOC: SC 2012-307 Information Coroners Office Page 2

⁴ DOC: SC 2012-307 Information Coroners Office Page 6

WHANGAREI	22	19	20	22
TOTAL	541	531	541	558

(d) PROVSIONAL SUICIDE DEATHS REPORTED TO CORONER BY AGE AND GENDER:

JULY 2010 AND JUNE 2011⁵

AGE GROUP YEARS	MALES NUMBER	MALES RATE	FEMALES NUMBER	FEMALES RATE
5-9	0		0	
10-14	4	2.68	4	2.79
15-19	40	24.53	16	10.38
20-24	53	31.73	16	10.19
25-29	37	25.34	15	9.55
30-34	28	21.37	13	9.21
35-39	33	23.91	10	6.57
40-44	36	24.16	9	5.52
45-49	43	27.92	14	8.5
50-54	39	26.89	17	11.11
55-59	33	26.19	10	7.64
60-64	30	25.86	4	3.33
65-69	10	11.49	3	3.26
70-74	13	18.84	2	2.17
75-79	8	16.32	2	2.66
80-84	7	19.44	1	1.78
85+	5	20	3	6.36
TOTAL	419	19.36	139	6.2

(e) PROVISIONAL SUICIDE DEATHS PER 100,000 RATES JULY 2007 – JUNE 2011 (nationally)

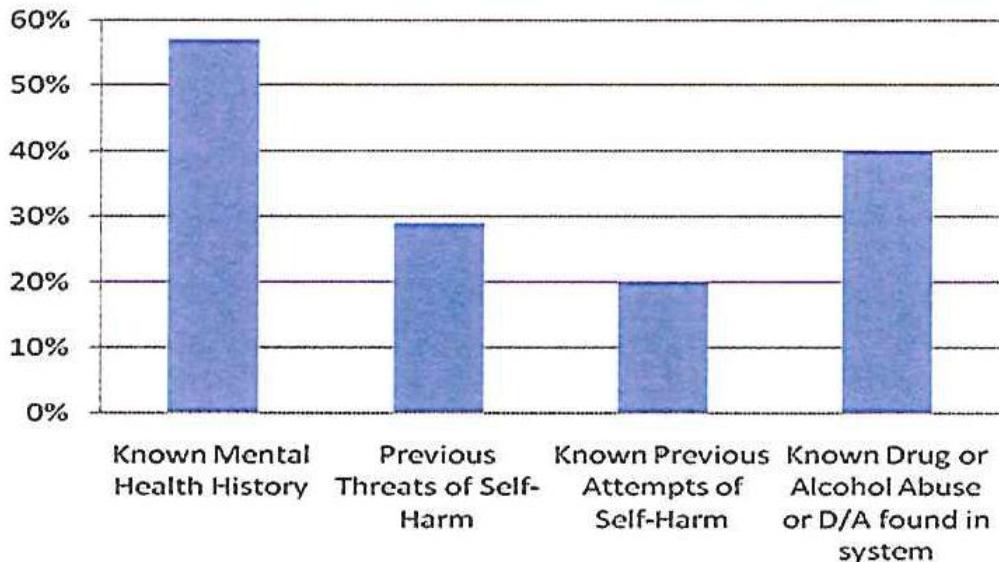
YEAR	2007/2008	2008/2009	2009/2010	2010/2011	TOTAL
TOTAL	540	531	541	558	2170
PER 100,000	12.2	12.04	12.26	12.65	

Around 128,00 people work in the agricultural sector⁶ and suicide for agriculture averaging 25 per year, which equates to a rate of 19.53 per 100,000. Almost 50% higher than the national average population rate.

⁵ DOC: SC 2012-307 Information Coroners Office Page 3

⁶ DOL: Agriculture sector plan to 2013

Risk Factors and Warning Signs



(2.2) RESEARCH: FARMER WELLNESS EVIDENCE BASED STREAM DAIRY FARMING FATIGUE AND WORK RELATED STRESS⁷

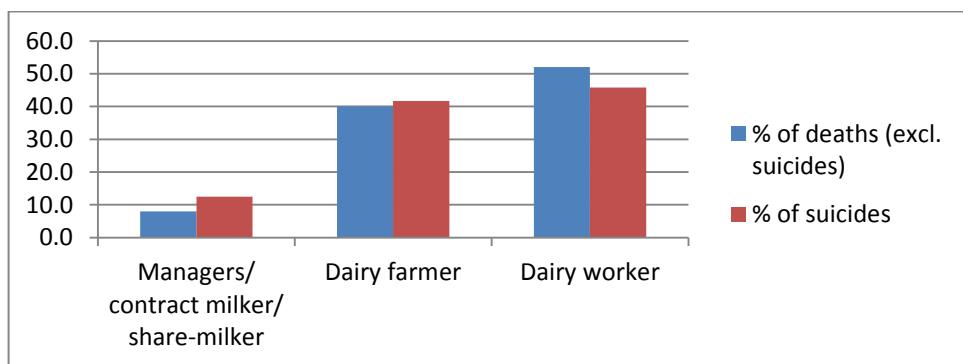
Research was carried out as part of a project examining Dairy Farming Fatigue and Work Related Stress and the relationship with Dairy workplace accidents and deaths. An analysis was carried out encompassing Coronial data covering 2007 – June 2011.

(a) CAUSES OF ALL DAIRY DEATHS SINCE 2007

Category	2007	2008	2009	2010	2011	Grand Total
Air Crash		1				1
Drowning			1			1
Farm Accident					2	2
Farm Vehicle Accident	1	3	4	4		12
Fire			1			1
MV Crash	3	8	6	10	3	30
MV Crash - Other			1			1
Poisoning		1		1		2
Suicide	3	5	9	6	1	24
Grand Total	7	18	23	22	6	74

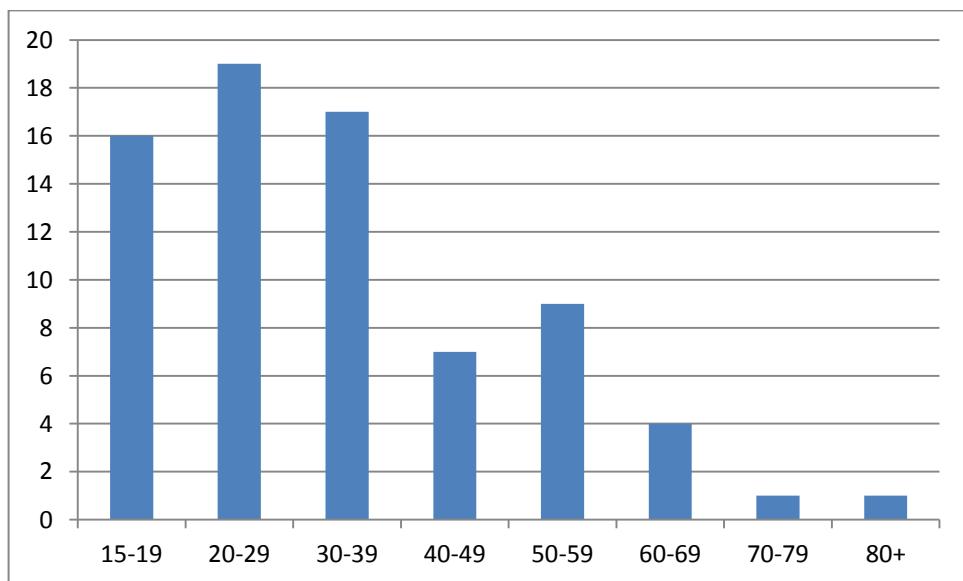
⁷ Tipples et al, 2011 Lincoln University

(b) PERCENTAGE OF ACCIDENTAL DEATHS AND SUICIDE BY JOB CATEGORY



(c) DEMOGRAPHICS:

DEATHS FOR THE WHOLE PERIOD BY AGE



Seventy percent are in the 15 – 39 age groups. Half of the deaths in the 15 -19 year olds were caused by MVA's, two deaths were associated with farm vehicles and 30% were suicides.⁸

⁸ Page 17: Milestone 1.3 Accident Incident Report, Lincoln University; Tipples et al

(d) GENDER:

THE PROPORTION OF MALES AND FEMALES IN DAIRY POPULATION, ACCIDENTAL DEATHS AND SUICIDES.

	% in population (2006)	% accidental deaths	% suicides
Female	33.7	8	8.3
Male	66.3	92	91.7

In this study the males' outnumbered females 11 to 1 in suicides.

Non New Zealanders have a much lower proportion of suicides relative to accidental death. Tipples et al assumed that people in positions of responsibility on a Dairy farm would be more likely to commit suicide, but 46% of the suicide cases were farm assistants and 52% of accidental deaths were farm assistants.⁹

(e) TIMING OF DEATHS:

According to the data June and July are considered the safest months and it was considered that this time frame is a quiet time and that it is more unlikely that fatigue and work related stress are contributing factors.

August calving brings a rise in the number of all deaths with a peak of suicide numbers. According to the Coronial data suicide appears to have two peaks. Spring and March with clusters of suicides Feb to May. Tipples et al, considered fatigue and work related stress may contribute to Spring deaths and that Autumn may be more related to finance issues or weather related e.g., post drought. There was a notable absence of suicides over the months of November to January.

(f) TOTAL DEATHS AND SUICIDES BY DAY OF THE WEEK:

It would appear that the greatest proportion of suicides occur on a Sunday and a Monday. This could reflect the availability of staff and rostered time of. Employer and employees may be more stressed as a result of fewer staff members on duty and the effect of spending less time with families.

⁹ Page 20: Milestone 1.3 Accident Incident Report, Lincoln University; Tipples et al

2.3 SUICIDE AND OCCUPATION IN NEW ZEALAND 2001-2005¹⁰

TABLE 1 Suicide Rates per 100,000 for Those Aged 15 Years and Older by NZSCO99 Major Occupation Category, Full-time and Part-time Workers, 2001-2005 (Data Incomplete for 2004 and 2005)

Major Occupation Category	Suicide Cases (No.)	Crude Rate	Rate Adjusted for Age and Gender (95% CI)
1 Legislators, administrators, and managers	83	38	27† (7-35)
2 Professionals	79	33	31† (21-42)
3 Associate professionals and technicians	111	58	69 (49-89)
4 Clerks	48	22	28† (14-42)
5 Service and sales workers	118	49	49 (28-71)
6 Agriculture, fisheries and forestry workers	131	95	67* (38-96)
7 Trades workers	170	117	69* (42-95)
8 Plant and machine operators and assemblers	118	82	54* (35-73)
9 Elementary occupations (cleaners, rubbish collectors, laborers etc.)	113	58	44 (23-66)
All workers	971	56	49 (33-64)

*Significantly higher than all workers, $p < 0.05$.

†Significantly lower than all workers, $p < 0.005$.

Occupation status can be a strong predictor of suicide risk. In the study those working in farming, fisheries and forestry and trades had a higher suicide rates than other occupations.

One of the discussion points in this study showed that self employed were a higher risk of suicide than those that are employees. Another possible influence for continuing suicide rates from farmers is the exposure to organophosphate chemicals. Organophosphate chemical poisoning affects central and peripheral nervous systems, measurement of poisoning can be determined by serum cholinesterase depression. The organophosphate monitoring programme was stopped with the introduction of Grow Safe courses. When monitoring was taking place during the 1970-1980's, cholinesterase depression levels were measured at between 28% and 80%.

2.4 SUMMARY

An average of 25 rural suicides a year.

There were 74 deaths associated with Dairy farming for the period 2007 – June 2011. Twenty four of these deaths were reported as suicides.

When the suicides are extrapolated using job categories i.e. dairy farmer, managers/contract milker/share milker and farm assistants, the percentage of suicides matches other cause of death percentages.

15 -19 year olds have a high death rate of 8 deaths per 1000 dairy farmers/ farm workers, compared with 1 death per 1000 for the 40- 49 year olds.

¹⁰ Suicide and Occupation in NZ 2001- 2005, Gallagher et al Int J Occupational Environ Health 14 (1) Jan/Mar 2007

Females make up one third of the Dairy workforce, but have less than one tenth of fatal accidents and suicides.¹¹

Suicides in the Dairy sector appear to have two peak periods, Spring and Autumn, reflecting work stress and possibly climatic and financial issues.

Reported attempted suicide is approximately 20 – 30 times the completed suicide figures.

30% of deaths in the 15 -19 year age group (Dairy Workers) are due to suicide

No research appears to have been done for the Sheep and Beef Sector at all around accidents and suicide.

¹¹ page 24:Milestone 1.3 Accident Incident Report, Lincoln University; Tipples et al

3. INDUSTRY VIEW and RESPONSES TO AGRICULTURAL MENTAL HEALTH NEW ZEALAND

WHAT IS CURRENTLY BEING DONE TO ADDRESS ISSUE OF MENTAL HEALTH IN AGRICULTURE?

3.1 DAIRY NZ

A DairyNZ programme aims to empower dairy farmers to change behaviours and attitudes toward their own wellness and wellbeing.

The programme started in 2010 and goes until 2017. It is being done by the New Zealand Institute of Rural Health (NZIRH) in partnership with AgResearch and Lincoln University.

A series of 'Health PitStop' clinics are held around the country at agricultural events. These involve doing brief assessments to provide farmers with immediate information about their health. 824 assessments were undertaken in the 2010-11 year: 632 farmers now have the information to help them start addressing a physical health issue they were previously unaware of. A further 500 PitStop farmer assessments are planned to be completed by May 2012.

As part of this programme Lincoln University, together with WEB Research, are carrying out a systems-based research programme. It focuses on dairy farm activities, through regionally based work change laboratories, to help people in dairy farming develop safer and more productive production systems and behaviours with long term benefits. DAIRY NZ very proactive.

3.2 AGRESEARCH

Dr Botha is researching in collaboration with other industry groups, farmer wellness and stress in the dairy sector, through a series of Health Pit stops. The work is funded by; Sustainable Farming Fund, MPI, Rural Support trusts and Dairy NZ .A five year strategy.

3.3 DAIRY WOMENS NETWORK

Supports dairy women through Dairy day's events addressing issues of Health and Safety, Farmer Well being, Conferences and workshops on work life balance, training, and regional meetings.

Currently investigating the introduction of SUSTAINABLE FARMING FAMILIES AUSTRALIA. Recognise very clearly the need for further work around stress and mental wellbeing.

3.4 FEDERATED FARMERS

Suicide is not something the Fed Farm organisation has considered separately. Some provinces have put together local resource packages of where to get help if needed.

Overall response from Federated Farmers muted, though there is some very proactive regions e.g., Waikato and Northern Canterbury also David Rose, Southland. Federated Farmers has a strong role with advocacy of practical issues around farm safety, but tends to leave pastoral care to Rural Women NZ.

Fed Farmer also a partner in Ag Sector Health and Safety Strategy , where one of the four strands of activity is around the physical and mental well being of farmers .Also involved in Agricultural Health and Safety Council along with others.

3.5 RURAL WOMEN NZ

Rural women have strong regional organisations and always developing workshops etc, to develop the capabilities of rural women. The issues for rural women are two fold. They have stressors around family and supporting farming businesses and their own mental health, plus the issue of their partners who may be

coping with farm stress and mental unwellness. The Australian strategy of Sustainable Farming Families may be able to be adapted for this group in collaboration with work being undertaken with Dairy Woman's Network.

3.6 RURAL SUPPORT TRUSTS: MPI

The response from Rural Support Trusts regionally varied. Many feel that their mandate for involvement revolves around adverse events. The funding from MPI generally only \$22,000 a year and further grants for extreme events that have a "national consequence". The basic philosophy is they are only proactive when needed. Some regions don't feel that it is their task to go to communities, rather the communities or individuals come to the rural trust. Some regions choose to have a very proactive role in rural communities and source funds elsewhere in addition to MPI funds. Example, Waikato, Neil Bateup and Northern Canterbury, Doug Archbold, Top of the South , Ian Blair and Bay of Plenty with Zespri as a PSA response.

3.7 MEAT AND LAMB NZ

Meat and Lamb have yet to respond to questionnaire. Meat and Lamb has regional discussion group days don't have any components of discussion around mental health issues. Tends to focus on more practical workshops sessions. Has been put to them they perhaps need to incorporate some discussion around stress and mental health problems. Meat and Lamb are involved in Ag Strategy plan, dealing with farm bike safety.

3.8 HORTICULTURE NZ

Response was resources are limited and don't have any strategies in place around mental health of Horticulture Industry.

3.9 NEW ZEALAND YOUNG FARMERS

Keen to be involved in any programmes, has contact with Brent Nielsen NZRIH and also PICA, Primary Industry Capabilities Alliances.

PICA, CEO Richard Fitzgerald

3.9 ZESPRI

As a result of the impact of PSA, the kiwifruit industry has been very proactive with pastoral care of its growers. Field Officers have attended suicide prevention programmes, Grower support programmes introduced , pastoral and financial seminars developed , comprehensive list of all local organisations available to help families, and all staff have a grower support flow chart with appropriate " go to" contact details for financial help, operational help, psychological or emotional help and mental Health emergencies. Zespri has also commissioned extensive research (Lincoln)on the impact of PSA .All growers given a support pack.

3.9 WAIMAKARIRI COUNCIL

Injury Prevention Waimakariri have a range of suicide prevention strategies in place to support the wellbeing of their local rural community. To date this has involved training community members to recognise and respond to suicidal behaviour, holding community talks on anxiety and depression, and The formation of a steering group. Collaborating with Dairy NZ and local business trialling a project focussing on nutrition for young Dairy workers. "Funky Farmers"

3.10 SUMMARY

Strategic agricultural industry response varies.

- Dairy NZ and Ag Research very proactive, focusing on physical wellbeing assessments and mental health assessments, collaborating with NZIRH over the next 5 years.
- Federated Farmers tends to leave health strategies to Rural Women and focus on supplying support with Rural Support Trusts when a significant event occurs.
- Women in Dairying Network in the process of establishing strategies addressing rural stress and depression.
- Zespri through Kiwi Vine Health have developed grower support packages following the impact of PSA.
- Waimakariri Council has a suicide prevention strategy and very interactive with rural communities, trialling "Funky Farmers" Programme in collaboration with Dairy NZ and local business.

Industry support and management of events tends to be at the bottom of the cliff, response and support engaged at the time of the event. Response is structured around adverse events, such as drought, floods. Often localised events can happen which don't require a national response, but the impact is still the same for a few individuals affected.

4. EVENTS AND INFLUENCES.

What are the “events” or “influences” that impact on mental health issues in our rural populations and what work has been done in relation to identifying, assessing, managing and supporting risk within the New Zealand Context?

Agriculture in NZ is a diverse industry and the diversities expose farmers, farm owners, sharemilkers, farm workers, partners, families to a variety of hazards that can contribute to mental health concerns. Often events occur that the agricultural person has no control over.

For the purpose of the review I will look first at Influences and secondly events that can/do effect mental health in rural communities.

4.1 INFLUENCES

Influences in themselves are not acutely affecting a person’s mental health, but rather are contributing to the back ground noise of a farmer’s day to day management of a farming business. At certain time these influences if not managed and dealt with, in an appropriate manner can trigger a chronic response of helplessness and depression (compounding problems) or an acute response of mental illness, with serious consequences to the individual, the family and community.

4.2 CATEGORIES OF INFLUENCES and EVENTS THAT IMPACT ON FARMER MENTAL HEALTH (Appendix Five)

- Policies And Procedures
- Financial
- Demographics
- Geographical
- Physical Health
- Infrastructure
- Animal Husbandry
- Social, Personal

Stressors in the workplace represents objective events that happen to an individual or business, whereas, stress is a subjective response to an event which in turn influences mental and physical health outcomes¹²

Stressors can be categorized into:¹³

- Organisational demands, e.g. work conditions
- Extra – organisational demands, e.g. work/family balance
- Characteristics of the individual, e.g. age

¹² Fletcher, B. (1991) Work, Stress, Disease and Life Expectancy. New York

¹³ Sutherland, V.J & Cooper, C.L 1988. Occupational Stress.

Stress symptoms are many and varied:

- behavioural symptoms, e.g. procrastination
- Psychological symptoms, e.g. anxiety
- Physical symptoms, e.g. elevated blood pressure

4.3 RESEARCH DONE WITHIN THE NEW ZEALAND RURAL CONTEXT IN RELATION TO IDENTIFYING, ASSESSING, MANAGING RISK AND STRESS

For the purpose of the review I have only looked at research in the past decade and current. Research on stress and farmers tends to happen when there is a downturn in the agricultural economy. In the 1980's much research was undertaken, which probably reflects on the lack of continued sustained work in this area. The "event" resolves and things go back to normal and motivation to continue research and development tends to diminish.

(a) Research: "Stress in New Zealand Farmers"¹⁴

This was a cross-sectional study of stress in a stratified, random sample of New Zealand farmers. The stressor questionnaire grouped questions into seven sections; policy and procedures, finance, time pressures, hazards in farming, unpredictable factors in farming, geographical isolation, and community issues. The most stressful events were 'increased work load at peak times', 'dealing with workers' compensation', 'bad weather', and 'complying with health and safety legislation'. Age, being separated or divorced, being a deer farmer, the farm not making a profit in the last year, and supervising staff were independently associated with higher stress. There were differences between men and women regarding stress experienced.

(b) Research: Stress In Dairy Farming And The Adoption Of New Technology¹⁵

The study aimed to assess stress experienced by New Zealand Dairy farmers, in relation to adoption of new technology and the relationship of stress to age and gender. 985 farmers participated in the research.

The highest levels of stress were reported as time pressures, machinery breakdown, weather and govt policies. Stresses to new technologies were at the bottom of stressors.

Farming women reported more stress on seven items of stress severity, with balancing work and family responsibilities rated third whereas men reported balancing work and family eighth out of twelve stressors.

The stressors farmers ,often highlight as a major concern i.e. time pressures, machinery breakdown, weather and govt policies are consistent with other studies that have also identified stress events which the farmer has lack of control over. Changes in patterns of experienced stress vary with economic conditions and farming cycles, profitability.

(c) Research: Occupational Stress among the New Zealand Farmers.¹⁶

A review of the literature notes that farmers are experiencing high level of stress due to the impact of various uncontrollable factors in the work environment. Occupational stress pertinent to the New Zealand

¹⁴ Stress and Health Journal 2007: 23: 51-58. Firth H.M et al

¹⁵ International Journal of Stress Management 2004, Vol. 11. No3. 270-281

¹⁶ Occupational stress among NZ farmers, A review, Huat Bin, Ang 2011.

agriculture sector includes: (i) economic factors, (ii) adjusting to government regulations, (iii) labour shortage, (iv) effect of trade globalisation, (v) climatic conditions, and (vi) size of the farm.(Appendix Five)

(d) Occupational Stress in farming:

International Labour Organization reports that the cost of stress related illness and injury may account for approximately 2% of Gross Domestic Product per year in the OECD countries¹⁷

National Institute for Occupational Safety and Health (UK) has reported that one of the top lists of stress related illness by occupational group for farmers.¹⁸

4.4 CURRENT RESEARCH IN NZ AGRICULTURAL SECTOR, IDENTIFYING, ASSESSING, MANAGING AND SUPPORTING RISK

(a) FARMER FATIGUE AND WORK RELATED STRESS

Project Leader: Rupert Tipples, Lincoln University

The project “dairy farming fatigue and work related stress” is part of a longer term programme on farmer wellness in the dairy industry.

Project key focus areas:

- How are overwork, fatigue and work related stressors impacting on the work and health of farmers workers and families.
- understanding the change in NZ Dairy farming, in Canterbury, Waikato, and Southland
- Trial industry designed solutions

Funded by Dairy NZ, Primary Growth Partnership.

Led by NZIRH.

Research Team: Roberta Hill, WEB Research

(b) RURAL MENTOR, LEARNING in PARTNERSHIP

A formalised farmer to farmer mentoring scheme, which is voluntary and off line. Mentor and Mentee partnership for one year, farmer based.

Purpose: “To establish a nationwide industry wide mentoring scheme that provides benefits to the wider industry”

Two Waikato/King Country Pilot, 2006 2007, Sheep and Beef and Dairy. Launched 2009

Funding from Sustainable Farming Fund, Beef and Lamb NZ, Dairy NZ, NZ Young Farmers, Organics Aotearoa,

Led By Allen. J. info@ruralmentor.co.nz

(c) THE 2005 RURAL HEALTH WORKFORCE SURVEY.¹⁹

¹⁷ Hoel, Sparks & Cooper, 2001 the cost of violence/stress at work

¹⁸ Lobbley et al 2004, Rural stress review final report. UK, Centre for rural research

Led by NZRIH, Dr Goodyear- Smith, Principal Researcher.

Abstract: Looks at the sustainability of rural healthcare as there are concerns in NZ about the retention and recruitment of a viable rural health work force. The data collated highlights trends which may assist future Ministry of health planning for rural health practitioners.

(d) DAIRY NZ RESEARCH AND COLLABORATION WITH AG RESEARCH, LINCOLN UNIVERSITY, NZIRH.

There are numerous examples of Dairy NZ's involvement in the Dairy Sector as a major contributor to research around the issue of wellness, stress and mental health collaborating with AgResearch and NZIRH, PGP.

- Industry Response To On Farm Issues: Mike Bramley, Murray Holt

Farm Systems early response service: Purpose to link farmers with the right people. Industry driven.

Started in April 2010.

- The Dairy Farmer Wellness and Well Being Programme 2010 – 2017.

The programme will provide a multi agency approach to assist the dairy work force to improve their health and well being. Project is in partnership with PGP, NZIRH, and AgResearch. The health of farmers assessed through" Health Pit Stops"

From a sample of 540 dairy farmers

- 17% screened positive for emotional unwellness
- 26% have self reported some form or emotional unwellness
- Many farmers said they were okay emotionally while they were not
- Approximately one in every two farmers do not seek help when they need to
- 39% were concerned that they are losing the ability to keep up with the physical demands of farming because their bodies cannot keep up with the physical demands of farming work
- 25 farmers complete suicide every year

(e) ALLEVIATING STRESS ON DAIRY FARMS.

Supporting stressed farmers and farm staff through effective partnerships .The project assists farmers by providing support and guidance of appropriate person to help with problems. Partners are AgResearch (Neels Botha), PGP, Waikato Rural Trust, NZ Young Farmers, Dairy Women's Network.

(f) BANKS, MONEY AND STRESS.

Presentation: Financial stress factors on farm, what they, might be and where do they come from. Partnership with Ag Research and Dairy NZ Economic Group.

(g) FARMING, DANGEROUS OR DEADLY.

Research measuring farmer's exposure to noise and chemicals. Collaborative work with Massey University and National centre for Farmer health. Contracted by Safe Work. Completion May 31 2013. Some data would

¹⁹ Goodyear-Smith, NZRIH. Ministry of Health 2006. Oct.

suggest that people who are deaf are more likely to have depression and suicide, as deafness socially isolates people. Also chemical poisoning through weed spray can cause some mental health problems over time.

(h) HEALTH OF FARMERS IN SOUTHLAND. pub: NZ Medical Journal: Sept 2001

Author Hilda Firth, Senior Lecturer in Occupational Health
Aim. To describe the health of farmers in Southland.

(i) DAIRY Women's Network Research

Very aware of issues around rural mental health, working with DairyNZ re Sustainable Farming Families. An entry level programme looking at physical and mental health. Also looks at farm work teams and staff development.

DWNZ also collaborating with PIT STOPS.

Summary of Dairy Women's response to questions around stress and mental health. (Appendix five)

What are the stresses?

- Work load –lack of time and multiple roles
- Women not feeling valued for their contribution
- Isolation/Lack of Network
- Stressed/depressed partner
- Triggers Financial
- Adverse event –earthquake, drought, flood, snow

What are the women seeing/experiencing

- Physical signs –shingles, eczema
- Increased use of -tobacco, alcohol (apparent coping mechanisms –not dealing with the issues
- Mood swings
- Increase in anger/losing the plot at children and staff , low tolerance
- Men 'go underground' –stop communicating

How are women responding?

As individuals

- Some talk about being at a loss and not knowing what to do
- Seeking medical help and encouraging visits to GP
- Talking to other women
- Cease working off farm and picking up more on farm tasks –Self worth?
- Making more decisions about operational issues –buy more feed or not?
- Peace maker –staff and family
- Talking to banks/accountants

5.4 SUMMARY

- Stressors represent objective events that can impact a farmer individual or rural business. Stress is a subjective response to an event which in turn can alter physical and mental wellbeing.
- Stressors can be organisational demands , e.g. work conditions , extra – organisational demands e.g. work life balance, characteristics of the individual, e.g. pre existing mental health problems like depression.
- Stress symptoms can manifest in a variety of ways, behavioural, e.g. procrastination, psychological, e.g. anxiety, physical, e.g. hypertension
- Research has focused on the accessibility of mental health services for rural communities , and influences that contribute to a farmer completing suicide. Physical, social, cultural and psychological isolation, deprivation, social exclusion in rural communities, rural service deliveries, mental health literacy, gender differences and experiences of stressors or events .
- Research has also focussed on how to develop and build resiliency in rural communities and individuals and the development of mental health literacy programmes for rural communities.
- Barriers to resiliency, both internal and external need to be understood and researched for the development of effective strategies to reduce stigmatisation of mental health, leading to more active participation and understanding of the whole rural mental health issue.
- The review clearly demonstrates the need for further work developing strategies to effectively address the issue of rural mental health, ensure adequate funding and resources to maintain sustainability of programmes, efficient evaluations of suicide and mental health programmes to ensure the effectiveness of mental health and suicide prevention strategies.

5. GOVERNMENT BODIES RESPONSE TO RURAL MENTAL HEALTH ISSUES

5.1 DEPT OF LABOUR OCCUPATION HEALTH ACTION PLAN 2011-2013

Involves strategy plans for five industries: Fishing, Manufacturing, Construction, Agriculture, Forestry.

The policy document that is agricultural industries' response, actions and strategies is the:

5.2 AGRICULTURE SECTOR ACTION PLAN TO 2013: WORKPLACE HEALTH AND SAFETY STRATEGY FOR NZ TO 2015

The action plan has been developed by the Department of Labour in partnership with Industry and Government stakeholders.

(Ministry of Health, Mental Health Commission, SpinZ, DHB's PHO's not included in the Action Plan.)

5.3 THE ACTION PLAN FOR PHYSICAL AND MENTAL HEALTH/WELL BEING OF AG WORKERS

- “Agricultural work demands can be intense, due to variables over which the farmer has little or no control. e.g., adverse weather events, seasonal demands, market changes, cash flow changes, high levels of debt.
- People respond to stress or fatigue in many different ways. People may develop physical health problems i.e. heart or hypertensive disease or they may develop emotional or mental problems which could lead to depression, substance abuse, self harm suicide, family violence.”²⁰
- “Seeking to address systemic issues like stress and fatigue could well have a positive flow on effect on accidents and illness”

5.4 NEW ZEALAND SUICIDE PREVENTION STRATEGY PLAN 2006 – 2016

- The Government’s approach to suicide prevention is set out in the New Zealand Suicide Prevention Strategy 2006–2016 and the New Zealand Suicide Prevention Action Plan 2008–2012 – 2016.
- An Inter-Agency Ministerial Committee on Suicide Prevention co-ordinates suicide prevention activities and monitors progress (SPINZ).
- The Strategy is underpinned by an Action plan that outlines the actions that evidence suggests will contribute to suicide prevention. The *New Zealand Suicide Prevention Action Plan 2008–2012* sets out how each of the goals will be progressed, along with detail about timeframes and which agency is responsible.
- The Strategy and Action Plan aim, is to prevent suicide by bringing some consistency to prevention efforts and encourage interconnectedness across government and non government agencies, mental health service providers and the community.
- The Strategy and Action Plan recognise we all have a role to play in preventing suicide which can only be achieved by utilising a collaborative approach.

²⁰ DOL Agriculture Sector Action Plan to 2013

- In the process of assessing local agent's responses, there appears to be a lack of collaboration and continuity, an obvious disconnect between urban and rural.
- Many of the service providers spend time on contesting funding, and contesting between themselves for contracts.
- The majority of Regional and Local Councils don't see that they have mandate to provide "social policy," with the exception of Waimakariri Council, that has WHO accreditation and proactive.

5.5 THE NATIONAL DEPRESSION INITIATIVE.

- The National Depression Initiative (NDI) aims to reduce the impact of depression on the lives of New Zealanders by aiding early recognition, appropriate treatment, and recovery. It is part of the Ministry of Health's commitment to addressing suicide prevention, as well as to improving the mental health and wellbeing of all New Zealanders.
- Funding for the research and development phase of the NDI was made available during 2004/05, and the campaign itself was launched in October 2006.
- Strong use of media for example Sir John Kirwan.²¹
- Initiatives such as "Like Minds Like Mine." were developed to counter the stigma and discrimination associated with mental illness was established in response to the 1996 Mason Report. It began in 1997 as one of the first comprehensive campaigns internationally to address discrimination associated with mental illness, combining community action at a local level with nationwide strategies and media work to bring about social change.
- Some DHB's have designated Rural Managers within their organisation, e.g. Waikato and Southland.
- Counties Manukau DHB, have adapted Mental Health First Aid (Aust) for Maori and have trialled projects since 2009 and have evaluated usefulness of MFHA.
- There appears to be a disconnect with rural from PHO's, who don't appear to know what rural organisations they could involve for example, when doing wellness checks in provincial towns and miss opportunities to engage rural communities and rural organisations.
- A Maori youth suicide prevention strategy, Kia Piki Te Ora o Te Taitamariki, is based on recognition of the relationship between culture and behaviour, the organisation operates in 9 regions.
- NZ Red Cross have developed and are in process of rolling out a strategy "SAM." Save a Mate is a harm minimisation course designed for young people. It is a non-judgemental programme that aims to reduce harm from commonly used substances an issue for many agricultural workers.

For the purpose of this review Regional Councils were all sent a letter stating the purpose of the review of rural mental health and were asked to respond accordingly. Most didn't respond, some felt it wasn't their mandate.

²¹ Kirwan, www.depression.org.nz

5.6 WAIMAKARIRI COUNCIL

. The Waimakariri council has WHO accreditation and has specific people responsible within the organisation for mental health services.

Injury Prevention Waimakariri have a range of suicide prevention strategies in place to support the wellbeing of their local rural community. To date this has involved training community members to recognise and respond to suicidal behaviour, holding community talks on anxiety and depression, and The formation of a steering group. plans include:

- supporting the formation of a local Menz Shed²⁰
- setting up a suicide support group
- programming on local radio that focuses on mental health issues
- providing training to a local person to run workshops on recognising suicidal behaviour
- mapping current support available in the area, and
- collaborating with Dairy NZ and local business “ Funky Farmer “ Nutrition

5.7 MINISTRY OF HEALTH, DHB'S AND PHO'S RESPONSE²²

- Some DHB's have designated Rural Managers within their organisation, Waikato and Southland.
- Counties Manukau DHB, have adapted MHFA for Maori and have completed an evaluation of the programme.
- Gisborne DHB, very keen to liaise as it has the worst stats for mental health.
- DHB'S don't allocate separate funding for Rural Sector, therefore hard to evaluate whether services reach rural populations.
- There also appears to be a disconnect with rural organisations and PHO's in terms of collaboration and opportunities are missed particularly in provincial towns.

(a) Like Minds Like Mine

- A project to counter the stigma and discrimination associated with mental illness was established in response to the 1996 Mason Report. It began in 1997 as one of the first comprehensive campaigns internationally to address discrimination associated with mental illness, combining community action at a local level with nationwide strategies and media work to bring about social change.
- Since the initial five-year period the Government has maintained the Like Minds project as an on-going programme through the Ministry of Health.
- Throughout the life of the programme, surveys and other evaluations have identified key areas of action, particularly in relation to increased acceptance and openness about mental illness in the community, and increased leadership of the programme by people with experience of mental illness.²³
- One of the comments from the Likeminds organisation Taranaki is, that regionally outcomes differ and engagement with the rural communities not uniform. Each region has its own way of prioritising what they consider to be important.

²³ www.likiemindstaranaki.org.nz

(b) Kia Piki Te Ora

- A Māori youth suicide prevention strategy, Kia Piki Te Ora O Te Taitamariki, is based on recognition of the relationship between culture and behaviour, for the development of the Māori youth suicide prevention strategy by Māori and non-Māori practitioners.
- There are nine regional Kia Piki Te Ora organisations.
- An interactive organisation and not exclusive and keen to engage.

(c) New Zealand Red Cross.

- NZ Red Cross has developed and is in process of rolling out a strategy "SAM." Save a Mate is a harm minimisation course designed for young people. It is a non-judgemental programme that aims to reduce harm from commonly used substances.
- The programme is presented by qualified Red Cross SAM instructors, and is delivered free of charge to schools and youths groups. A very interactive programme with wide appeal probably up to 25 years of age.
- One of the issues for health practitioners in rural regions and young farm workers is drug induced psychosis²⁴

(d) Salvation Army.

- Salvation Army NZ do not have specific programmes for rural mental health support. Request has been forwarded onto divisional leaders in Auckland, Hamilton, Wellington and the South Island to see if they have anyone who might be able to respond.
- "We don't have a national approach specifically at suicide prevention in the rural sector. However, The Salvation Army in Australia did a major project on this some years back and their material has been very well received. Here's a link to their website: "<http://salvos.org.au/about-us/news-and-resources/braver-stronger-wiser/>

5.8 SUMMARY

- The Department of Labour Occupation Health Plan 20011-2013 and the Agriculture Sector plan, sets out the goal of improving the physical and mental health of agricultural workers in partnership with industry and government stakeholders.
- The Ministry of Health has a suicide prevention strategy developed to reduce the stigma of mental health and an inter-agency committee coordinates suicide prevention strategies. (SPINZ)
- The development of the National Depression Initiative (NDI) aims to reduce the impact of depression through programmes " Like Mind Like Mine"
- The response of local agents and territorial authorities varies from very engaged, eg Waimakariri Council to muted. The majority of Regional Councils don't feel their mandate is responsibility for social issues.
- Only two DHB's have a designated rural portfolio, e.g. Southland and Waikato. Counties Manukau have adapted MHFA Aust for Maori and have carried out mental health literacy programmes since 2009.
- There appears to be a disconnect between urban and rural. Many of the health service providers spend energy on contesting for funds and as result not a lot of collaboration.

²⁴ Takapau health centre, conversation with rural nurse practitioner. 2012

- Many PHO's unaware of rural organisations they could collaborate with.
- Maori initiatives, Kia Piki Te Ora, a Maori youth suicide prevention strategy, operates in nine regions and not exclusive.
- Red Cross have adapted SAM Aust(Save a Mate) for New Zealand youth. An interactive programme discussing alcohol and drugs use.

6. LITERATURE RESEARCH.

A comprehensive review of research literature was carried out in 2003 in the UK, on behalf of the Rural Action Plan Working Group. The centre for Rural research (University of Exeter was commissioned to undertake the review. The review was published in 2004.²⁵ Another major review of “Tackling Stress in Rural Communities was carried out in 2007 and further Rural Stress Action Plans developed from that report.²⁶

“Stress which leads to distress rather than a spur to activity or positive change can be hugely debilitating for individuals, families and, ultimately, communities. The exact effects of this distress varies between individuals, depending on their social, cultural and economic backgrounds, but can range from mild anxiety through to a life threatening spiral of mental illness”

6.1 THE COMMON STRESS FACTORS THAT ARE GENERALLY IDENTIFIED IN UK RESEARCH:

- economic issues (particularly relating to farming change)
- isolation (again, particularly related to farming but also a characteristic of mothers with young children, older people, younger people, unemployed and ethnic minorities)
- value and perceptions of self-worth (farmers perceive themselves to be misunderstood)
- age-related factors (problems relating to succession, inheritance and retirement in farming)
- demographic changes (changes in rural communities, fragmentation of kin networks, competition for housing with incomers)
- employment (mismatched employee profile between those leaving traditional rural industries and requirements of alternative industries e.g. high tech sectors)
- housing and services (difficulties in accessing both)

6.2 RESEARCH ALSO FOCUSES ON THE NOTION OF ISOLATION AND THE DEFINITION OF ISOLATION IN THE RURAL CONTEXT

- Physical isolation is linked to the continued decline in the numbers of workers on farms, leading to the progressive isolation of the farmer on larger and larger holdings, and the gradual withdrawal of services from rural communities.
- Social isolation of the kind experienced when the constituency of rural areas change or when auction marts or other similar social venues close ... “It may be that farmers can cope with one deprivation in their ability to form relationships e.g. proximity of people and lack of people who display similarity. This points to physical isolation as a problem in so far as it compounds the problem of loneliness”
- Cultural isolation is linked to social isolation as the farmer is marginalized on the farm while the surrounding area becomes inhabited by urban incomers, and advances in technology render social networks unnecessary.
- Psychological isolation is essentially self-imposed, stemming from social conditioning which emphasizes the importance of being strong, self-reliant and generally stoical.²⁷

²⁵ Rural Stress Review Final report. Lobley, Johnson et al 2004

²⁶ Tackling Stress in Rural Communities. Jayne Boys. Jan 2007

²⁷ Monk, A.S. 1996 Stress, Depression and Isolation and their effects on the rural sector.

The findings have implications for the service deliveries in the farming community. Research done in Australia²⁸ also found that farmers rely on their social support coming from friends and family. That close to 50% of farmers wouldn't seek professional help, which has implication for introducing service delivery programmes.

6.3 RESEARCH FOCUSES ON THE IMPACT OF RURAL COMMUNITIES IN DETERMINING ACCESS TO MENTAL HEALTH SERVICES

- Lack of variability in everyday contacts may have negative impacts on mental health (this is confirmed by those studies identifying isolation as a stressor and those demonstrating that friend and kinship networks play a mediating role in the experience of stress).
- In turn, this can be compounded by the lack of anonymity in rural locations where public spaces are limited, resulting in a rural mental health scene that is thought to be 'messier' in terms of confidentiality than urban counterparts.
- High levels of suspicion and stigma colour the perception of mental health services in rural areas amongst some groups ... "What is clear from numerous studies is that the 'glare' of rural familiarity can feed into the often quite acute under-utilisation of local mental health services"²⁹
- The result is that the personal characteristics of rural dwellers are often forced to fit within a quite particular 'myth system', one that appears to be repeated across many different rural settings, and one hinging around traits variously described as 'resilient', 'stoical' and individualistic.
- Such a self-imaging easily translates into a fiercely independent streak – a culture of self-sufficiency, even when encountering psychological stresses of all kinds.

6.4 CAUSES THAT CONTRIBUTE TO A FARMER COMPLETING SUICIDE

In order of major influences,

- first was mental illness, then
- work problems and financial very close,
- followed by physical health and
- finally relationship³⁰

Research also points to higher levels of depression amongst farmers compared with the general population and that farmers are consistently in the high risk group for suicide. Some research has focussed on easier access to more fatal means, i.e. guns, chemicals and a familiarity with death. (Where you have livestock you have dead stock)

6.5 RURAL SERVICE DELIVERIES

- UK research centred around rural service deliveries counter the same issues as seen in other rural economies. Depopulation, change in land use, centralised services, funding cuts etc have universality about them.
- Service provision is more problematic in rural areas because of late presentation caused by the stigma of mental illness and the geographical distances involved in accessing services in many cases.

²⁸ Doyle, B.P. 2000 Stress on Farms An Australian Study

²⁹ Shaw ,S. 1997. Sources of Stress in the Upper Teesdale

³⁰ Hawton, K.S. 1998 Suicide and Stress in Farmers

- There is a particular shortage of specialist mental health services, and often patients become urban users of services because they have sought help in the nearest town

6.6 RESEARCH FROM CANADA AND USA

(a) Coping and adaptation

The literature revealed a number of issues regarding coping and adaptation that could usefully be related to the New Zealand situation:

- Farm women score significantly higher on the stress scale than men (Heppner, Cook et al. 1991; Lobao and Meyer 1991)
- Women's adaptive strategies centre round consumption , making sacrifices in terms of spending, the household budget etc as opposed to men who worry more about the stigma attached to their perceived failure – see below (Lobao and Meyer 1991)
- Farming men react differently to stressors than women, reflecting a more pervasive and ambiguous sense of personal failure linked to their traditional need for achievement (Heppner, Cook et al. 1991). The stigma of the farm crisis in terms of personal failure was alleviated to a certain extent by the knowledge that others had suffered the same fate (Swisher, Elder et al. 1998)
- Farming men are more vulnerable and exposed to stressors than other rural men because their way of life is guided by a different set of values. They are more vulnerable to financial and job-related events and family conflict than non-farmers (Swisher, Elder et al. 1998)
- The stress process causes depression and this is mediated by 'economic hardship' and personal control in a causal sequence (Armstrong and Schulman 1990; Belyea and Lobao 1990; Lobao and Meyer 1991)
- "Stress appears to result more from behavioural attempts to cope with and perceptions about one's situation than from the actual situation itself" (Lobao and Meyer 1991)
- Adaptation reduced the levels of familial well-being during the crisis, particularly in operatives with high debt-asset ratios (Lasley 1995)
- According to recent studies the preferred mechanism for coping with stress in farm families is reframing. This involves identifying the positive function of the problem in order to normalize a problematic issue. This changes the perception of the stressor event to redefine the situation in a less destructive and more useful way (Wilson, Marotz-Baden et al. 1991)
- Religious affiliation did not buffer stress but reduced the chance of depression resulting (Meyer and Lobao 2003)
- One study found that alcohol was not used as a maladaptive coping mechanism during the farm crisis, and that farm suicides were lowest in 1981, remaining quite stable since (Hsieh, Cheng et al. 1989).

6.7 AUSTRALIAN LITERATURE AND RESEARCH.

The stressors identified by Gray and Lawrence (1996) and Doyle (2000) in their research on farming stress in Australia are listed below:

- Chronic pressures experienced by farmers: commodity prices, seasonal conditions, government regulations or policies, time pressures, financial difficulties and overwork (these are the most difficult in chronological order.) (Doyle 2000)
- The top stressful life event was found to be 'living with tight money', while death, injury, and divorce followed.

- Overall, the correlations for stress levels showed that work pressures, living with tight money, work responsibilities v. own needs topped the list of stressors while isolation was last, all mediated by mastery and social support (ibid)
- 63% of farmers were found to be 'very much stressed', while 53% were 'fairly stressed' and 106% were 'a little stressed'. The results of the study suggest that counselling designed to assist farmers with relationship problems and deal with low mastery could provide social and economic benefits to a large number of farmers (ibid)
- Financial condition, perception of what is at stake, the combination of on-farm and off-farm obligations and the general frustrations of farm life are found to predict stress among both men and women (Gray and Lawrence 1996)
- Gender relations and attachment to farm life emerge as stronger predictors for women, while youth is a stronger predictor for men
- Attempts to develop and preserve the family farm may be creating stressful situations which threaten the family relations upon which the farming system is based (ibid).

Gray and Lawrence highlight 2 issues from the few published Australian studies of farm stress:

- There is an association between economic conditions and stress levels, but the latter decline as conditions improve
- There are clear parallels here with research from the UK and the USA
- The Doyle report (2000) also identified some coping mechanisms, support networks and internal resources of farmers:
- Personal support in the form of someone to talk to or someone to help on the farm if illness struck was available to over 2/3rds of farmers, while financial assistance would be available to less than 1/3rd
- Social support came largely from family, friends and neighbours, while doctors and church would help about 1/5th of farmers
- In terms of coping, nearly all the respondents would analyse the problem first to try to understand it, and then some would make a plan of action and follow it (problem-focused coping).
- Nearly one third would use prayer and faith in God as a coping mechanism, and over one third would accept what could not be changed (emotion-focused coping). Nearly half the sample said they would never seek professional help, only 4% saying they would seek help often.

6.8 THE IMPORTANCE OF DEVELOPING RESILIENCY

Resiliency is the focus for Gerrard et al's (2004) study of how rural people in Saskatchewan respond to stressful events and adversity without outside interventions. "Resiliency is the capacity of individuals to not only survive adversity but also thrive in the face of it, thereby enhancing their health" (p59).

Stress is considered to be one stimulus for resiliency, which has been perceived as a set of traits or attributes that a person has or lacks (e.g. self-esteem, internal locus of control, self confidence, the ability to learn from experience, courage etc). It is the ability to 'bounce back' from adversity; coping is defined as 'getting by' and is a skill necessary for resiliency but not sufficient in itself.

(a) Barriers to resiliency were defined as internal and external, and included:

- internal - growing older, lack of communication, fear (of the unknown and of failing), emotional, geographical and intellectual isolation, lack of knowledge, and the perception of self;
- external – lack of privacy (in terms of community support v. fear of perceived failure), communication (leading to community problems), resistance (to participation in community life by some), and stigma.

Broader categories of barriers to resiliency are equivalent to the chronic stressors identified in other parts of the literature:

- depopulation and the subsequent loss of a way of life,
- fragmentation of work and living,
- off-farm working for women,
- financial difficulties,
- the farming 'way of life'
- lack of support and care resources. Overall resiliency is adversely affected by the perception of a lack of control. The authors conclude that resiliency is both reactive and proactive:

Resiliency is both a process and a product, changeable over time, and involves preparing for and responding to adversity at the individual, family, community, and state level.

Epidemiological research has revealed that the utilisation of professional mental health services is low among rural Australians.³¹

The average length of the delay was 18.7 years across disorders (range 0-67).

The shortest delays were in depressive disorders (10.41 years)

the longest delays for social phobia (28.02 years).

6.9 SUMMARY

- In farming businesses international research has shown a commonality, despite differing farming systems of influences and events that contribute to farmer mental unwellness.
- Stressors identified are commodity prices, financial pressures, debt, climatic changes, overwork, seasonal conditions, government regulations and compliance.
- There is a difference between genders in terms of response adaptive strategies to stressors.
- That individuals have different capabilities and resiliency in adverse situations and the barriers to resiliency can be internal i.e. personal individual perception of mental conditions and external i.e. societal stigmatisation of mental health.
- resiliency both at a community level and on an individual level can be enhanced and supported with planned, coordinated approaches, educative mental health literacy programmes

³¹ Green, A.C. 2011

7. STRATEGIES FOR DEVELOPING MENTAL HEALTH LITERACY IN THE AGRICULTURAL COMMUNITY

- There has been much debate world-wide about what strategies should be developed to counter the problem of mental health, depression and suicide in rural communities. This section of the review will be to propose and consider useful strategies developed in other rural communities and how best to adapt established mental health literacy programmes within New Zealand rural context.
- Despite numerous suicide prevention, depression strategies developed around the world, mental health illnesses and suicide still continues to be a massive burden in societies from both a social and economic perspective.
- Within the New Zealand context what the review has shown is the disconnect between providers of mental health care, the lack of cohesive, collaborative policy particularly within the agricultural sector to construct a nationwide cohesive strategy around the issue of rural mental health. In part the lack of strategy is due to general populations stigma surrounding mental health discussion and also agricultural research and policy mandate and funding focus is on increasing agricultural production.
- Given that New Zealand's economy is very reliant on agriculture for economic stability, there are some lessons to be learnt from other rural economies on the impact of external stressors have on the financial viability of the agricultural sector and the physical and mental well being of those whose livelihoods are dependent on rural activity.
- Lessons learnt, is the need to have programmes in place before external events and stressors occur to ensure the resilience of rural communities is enhanced and better able to whether unforeseen stressors that impact on mental health and wellbeing.
- Following farming crisis in the UK, a centre for Rural Health was established, also Canada and Australia have adopted similar organisational structures. The Centre for rural health focuses on researching rural health and have established and rolled out mental health literacy programmes, such as Sustainable Farming Families and Mental Health First Aid.
- The purpose of the programmes is to remove stigma around mental health and depression, increase mental health literacy and strengthen rural community resilience.
- To support the discussion for the need for suitable educational and prevention programmes in rural NZ, a brief overview of the societal cost of suicide
- Secondly a conceptual model of rural suicide and where appropriate agencies could seek to disrupt the continuum leading to deteriorating mental health, depression and suicide.

7.1 COSTS OF SUICIDE IN NEW ZEALAND 2002³²

The following are the estimated costs of the 460 suicides in 2002 and the 5095 attempted suicides in 2001/02.

(a) Economic costs

- Suicides

Costs excluding lost production = \$4,694,000

Costs of lost production (8% discount rate)¹ = \$201,498,000

Total = \$206,192,000

Cost per suicide = \$448,250

- Attempted suicides

Costs excluding lost production = \$19,092,000

Costs of lost production = \$13,247,000

Total = \$32,339,000

Cost per attempt = \$6,350

Overall economic costs = \$238,531,000

(b) Non-economic costs (or willingness-to-pay or quality of life)

To the above totals, add the following non-economic (or intangible etc) values for lost life and quality of life. This calculation assumes that all life years are of equal value, despite the existence of some evidence to the contrary (O'Dea 2004).

At an 8% discount rate

Value of years of disability-free life lost = \$1,142,400,000

Cost per suicide = \$2,483,000

Total economic plus non-economic costs = \$1,381,492,000

7.2 A CONCEPTUAL MODEL OF RURAL SUICIDE.³³

- A conceptual model is defined as an illustration that shows a set of relationships between factors that impact or lead to another condition.
- The use of the model below is useful when considering possible prevention strategies and also educational programmes to increase rural communities' mental health literacy.
- The Cry of Pain and Entrapment model acknowledges the role of cultural and social factors influencing a person's decision making capabilities.
- Stressful experiences can result in feelings of defeat and loss therefore increasing the likelihood of further mental unwellness and possibly suicide.
- The entrapment cycle combined with no rescue creates in some a sense of learned helplessness, which develops into chronic long term depressive behaviours, suicidal thoughts or actions

³² O'Dea, D. Tucker,S. 2005 The Cost of Suicide to Society. Ministry of Health

³³ Stark, C.R.. A Conceptual model of suicide in rural areas. *Rural and Remote health* 11:1622. 2011

CROSS SETTING FACTORS	STRESS	ESCAPE POTENTIAL	HELPLESSNESS	SELF HARM	DEATH
Gender	STRESSORS	FACTORS AFFECTING SUPPORT	DECISION TO SELF HARM	LIKELIHOOD OF DEATH	
Poverty	Isolation	Cultural norms on help seeking	Cultural acceptability of self - harm	Norms on method of self harm	
Mental Illness	Social changes	Stigma of Mental Illness	Modelling of behaviour	Availability of lethal means	
Substance misuse	Economic changes	Mental Health Service availability		Availability of medical care after self harm	
Biological Factors	Social exclusion	Social Support			
Coping skills, Resilience	climatic	Spirituality			
Media Coverage					

7.3 “TOP OF THE CLIFF” STRATEGIES FOR CONSIDERATION AND DEVELOPMENT

- It has been proven that strategies developed to strengthen rural communities mental health literacy has assisted the lessening of stigma associated with mental health and depression.
- That often family members and friends may be the only ones to know person is troubled or distressed and lack the capacity or knowledge to intervene in a timely and meaningful, supportive manner.
- Research has shown that gender differences and differences in age/life cycles creates different dynamics and require different solutions.
- For the purpose of the review strategies will be discussed for the various stakeholders below.
 - Young rural men and women
 - Rural Families
 - Gatekeepers and Rural Professionals

7.4 YOUNG RURAL MEN AND WOMEN

- According to Tipples et al research into “ Farmer Wellness, Farming Fatigue and Work Related Stress”³⁴ data showed that the second cause of death for dairy farm owners, farm workers, farm manager were suicides after MVA.
- Of all the deaths for the 15 – 19 year old , dairy worker age group, 30 % were from completed suicides.
- Given that this age group engages in risk type behaviours, drugs and alcohol,³⁵ (“most of the psychosis they see in young agricultural workers is drug induced”) and the combination of long hours, peak seasonal workloads and poor nutrition, poor management of work/life balance, some poor employer practices and expectations, this group warrants educational programmes that reflects their particular demographics.
- In the process of the review, one of the issues that came to the fore was the number of students engaging in rural training programmes that have pre existing mental health problems.
- Telford has had to employ partime (24 hours) psychiatric nurse to help support these students.
- Public health nurse that is contracted to provide pastoral care for Taratahi student reports the same observation, that some students are enrolling with pre existing mental health issues.
- Risk factors for youth suicide is varied and often inter relate.
- Programmes developed for young agricultural people have to reflect the inter relatedness of the precursors to mental health illness and suicide.³⁶

7.5 RURAL FAMILIES

- Recent research has indicated that women in rural areas are an “at risk “group and that the needs of women have been neglected.³⁷
- Research on farming stress³⁸ indicates that farming women experience higher levels of stress than their male counterparts.
- Farming women maintain multiple roles within the farm enterprise. Often they are the source of off farm income, do all the record keeping, have the role of mother and primary care person.
- Rural women are the “ gatekeepers “ to their husbands mental well being and vice-versa. the men are gatekeepers of their partners mental well being.
- Balancing multiple roles in particular work/life balance, produces high levels of stress for rural women, men and families.
- Rural families have to contend with possibly a stressed or depressed partner, who may be exhibiting physical and emotional signs of stressor reaction.³⁹

³⁴ Page 17: Milestone 1.3 Accident Incident Report, Lincoln university: Tipples.R

³⁵ (conversation with Takapau rural nurse practitioner

³⁶ Breaking the Silence, Australia

³⁷ Lobley et al Rural Stress Review, Final report 2004

³⁸ McGregor,M.J. 1995, Farmer Stress Farm Management 9:57-65

³⁹ Dairy Womens Network Seminar

7.6 GATEKEEPER TRAINING OF RURAL PROFESSIONALS

- Gatekeeper training has been identified as one of the most promising strategies in terms of the impact on suicide rates and mental health literacy.
- Gatekeepers include frontline workers in a formal setting as well as those , whose public contact roles place them in a position to notice when someone may be at risk.⁴⁰
- Gatekeeper training also improves the capabilities of those that are in everyday relationships. The training is most effective when integrated into organisations or communities.
- Coupled with a gatekeeper training strategy is the development of comprehensive service providers information regionally that gatekeepers can refer to.
- Gatekeeper training yields specific benefits in identifying and responding to persons at risk of suicide, but also initiates early intervention and treatment of people with mental health needs,
- Analysis and evaluations of gatekeeper training finds that positive changes in suicide intervention attitudes, knowledge and skills were demonstrated along with reports of increased intervention activities and an overall increase in participant's mental health literacy.
- Gatekeeper training strategies require mapping of the nature and level of training required by various groups in rural communities.
 - Informal community caregivers i.e. families ,clubs, organisations, communities
 - Workers in public contact roles i.e. Police, Teachers, Tutors, casual visitors to farms
 - Those in more formal roles of paid or volunteer role, accountants, Vets, Rural Support trust staff, Farm Consultants, Stock Agents, Sales reps, Bankers
 - Gatekeeper training enhances rural communities capacities to be vigilant about suicide risk,
 - attends to immediate safety and enable links to further service support networks
 - increases the level of mental health literacy and community resilience to stressors.

There are many examples of gatekeeper programmes in Australia.⁴¹

- Lifeline Living Works
- Mental Health First Aid
- The Rural Frontline Training Programme, Beyond The Blue
- Coach the Coach
- The Rural Alive and Well Tasmania Programme
- ASIST
- MH101 a New Zealand programme funded by Ministry of Health.

Gatekeeper training of rural professional enhances knowledge about mental health problems and confidence in their abilities to recognize symptoms of mental disorders, and in their capacity to deal more effectively with clients with mental health problems.

Course participants gain confidence in their ability to deal with colleagues and farmers exhibiting symptoms of mental health problems.

⁴⁰ Breaking the Silence report Aust

⁴¹ Responding to Suicide in Rural Australia. SPA 2008 Sept

7.7 SUMMARY

There are three groups within the agricultural sector workforce, Farmsafe could facilitate, coordinate and develop in collaboration with other industry organisations implementation of mental health training programmes.

- Young Farm Workers,
- Rural Families
- Rural Professionals.

The purpose of the programmes would be to reduce stigma around mental health issues in rural communities, increase the resilience of rural communities and individuals before adverse stressors occur and enhance mental health literacy in rural communities and agricultural organisations.

APPENDIX ONE – Literature

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