

# **Health for Wealth Online Collaboration Event**

Outcomes Report August 2017











## **Executive Summary**

The Health for Wealth online collaboration event was held from 8 June to 18 July 2017, as part of the Health for Wealth initiative. This event was designed to discover new ideas on how to improve animal health feedback systems, and to work towards creating national standards for the consistent reporting, recording and analysis of peri-mortem disease information.

There were 164 participants invited to take part in the event, including the 14 members of the Health for Wealth Steering Committee and 150 representatives from organisations across the Australian beef, pork, goat and sheep meat industries. Participants were asked to respond to questions under four key themes: 'Data Collection and Sharing', 'Generating Value from Animal Health Data', 'Stakeholder Engagement' and 'What Else?'. Participants contributed to the event by posting their own ideas, and adding comments and/or votes to ideas posted by others. Overall, the event generated 43 ideas, 36 comments and 100 votes.

Participation is divided into three categories: Contributors (users who post at least one idea, comment and/or vote), Viewers (users who have logged in, however have not posted an idea, comment and/or vote) and Idle (users who did not login). Of the total group invited to participate, 35 contributed by posting ideas, comments or votes, representing 21% of the total invited participants. A further 13% of participants were Viewers, while 65% of invitees were Idle.

The theme that attracted the highest proportion of participant contributions was 'Data Collection & Sharing', with a total of 21 ideas, 25 comments and 69 votes. The idea receiving the highest popularity score of 13 through the voting process was 'Data standards'.

Data collection and data governance emerged as key idea themes across the top 5 ideas (by popular vote), as well as the need to provide support to processors and producers in understanding and implementing recommendations based on data feedback. Data usability and the availability of actionable insights was the most common theme across the remaining ideas, with 42% of ideas relating to this topic, followed by ensuring consistency in data standards principles, terminology and methods of data collection and sharing (21%).

The event outcomes provide an indication of the initial steps the Steering Committee may take in implementing the ideas, including drafting an initial set of standards in consultation with key influencers such as vets, livestock agents and rural merchandisers; conducting small scale, cross-species pilot tests to uncover further insight into types of data required by processors and producers; and providing advice on the tactical options available to producers to make it easier for them to take action.

There are also a number of recommendations to ensure maximum value and learning for the Health for Wealth project Steering Committee. As event results and participant feedback has indicated, the industry culture may not be prepared to engage in an online, open collaboration forum, maintaining a preference for in-person engagement. Therefore, an option for future events would be to consider the further segmentation of the industry and/or value chain, and to deliver discrete events (online 'safe spaces') for each group. The Steering Committee should consider the development of idea evaluation criteria against which each idea can be reviewed and evaluated, as well as a strategy to close the communications loop to ensure active participants are informed of key decision results and any concrete implementation plans.

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# 1 Summary of the Health for Wealth Online Collaboration Event

#### 1.1 Challenge Overview

The Health for Wealth online collaboration event was commissioned as part of the Health for Wealth initiative, a collaborative project between Australian Pork Limited (APL), Meat & Livestock Australia (MLA), Australian Meat Processor Corporation (AMPC), South Australian Research and Development Institute (SARDI), and the Department of Economic Development, Jobs, Transport and Resources Victoria (DEDJTR) within the Department of Agriculture and Water Resources' Rural Research & Development for Profit program.

The online collaboration event, which was held from 8 June to 18 July 2017, was designed to uncover new ideas on how to improve animal health feedback systems, and work towards creating national standards for the consistent reporting, recording and analysis of peri-mortem disease information.

To encourage participants to contribute, themes and sub-questions were designed to be simple and concise, with a focus on seeking ideas and opinions in a transparent, constructive manner. The four themes and sub-questions are outlined below:

## Theme 1: Data Collection & Sharing

- How should the data collection process be done? What enablers are needed at an industry and/or processor/producer level?
- What are the key barriers to overcome?
- What strategies can we implement to ensure the sharing of information leads to improved profitability of the industry? What principles must be embedded into the business rules for data sharing?

#### Theme 2: Generating Value from Animal Health Data

- How should peri-mortem data be best reported to engage producers and enhance on-farm management practices to improve animal health and wellbeing?
- What do we need to consider to ensure that peri-mortem data is used in the supply chain?
- What are the key challenges and opportunities for companies, supply chains and the industry, in terms of implementing effective use of animal health information?
- What are the top 3 priorities for the Health for Wealth project to tackle, in order to fast track consistent reporting, recording and analysis of animal health data?

#### **Theme 3:** Stakeholder Engagement

How should the 'Health for Wealth' group engage with key stakeholders?

#### Theme 4: What Else?

What other ideas or suggestions do you have for the Health for Wealth project?

Participants were asked to post their ideas, vote and comment on ideas posted by others, in response to these four themes. During the event, participants generated 43 ideas, 36 comments and 100 votes.

## 2 Participation outcomes

#### 2.1 Invitees

In total 164 individuals, comprising the 14 members of the Health for Wealth project Steering Committee and 150 representatives from across the industry, were invited to participate in the Health for Wealth event. As shown in Figure 1 below, Processors, Producers and Veterinarians represented the largest segments of the invitee group with 29%, 23% and 17% respectively.

While the event initially launched to 139 participants, 15 new participants (9%) were added during the course of the event following recommendations from within the existing participant group. Recommended participants included an additional 8 new Producers (16%) and 5 new representatives from the Government, Industry and Research segment (38%).

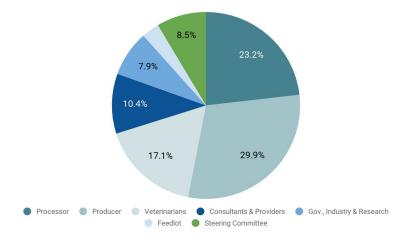


Figure 1. Participant Segments/Industry Groups

#### 2.2 Overall Participation Rate

Participation is divided into three categories: Contributors (users who post at least one idea, comment and/or vote), Viewers (users who have logged in, however have not posted an idea, comment and/or vote) and Idle (users who did not login).

The event received a total of 179 submissions (ideas, comments and votes) from 35 Contributors, representing 21% of the invited total. Figure 2 shows that a further 13% of participants were Viewers, while 65% of invitees were Idle.

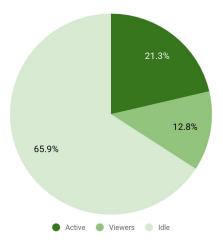


Figure 2. Participation Results

## 2.3 Comparative Contribution Rates

As indicated in Figure 3, 46% of the total 35 Contributors posted either an idea and comment, idea and vote or vote and comment. Meanwhile, 4 Contributors chose to only post ideas (11%), and a further 8 Contributors chose to only post votes (22%). The remaining 7 users (20%) engaged with all aspects of the collaboration event, each posting at least one idea, comment and vote.

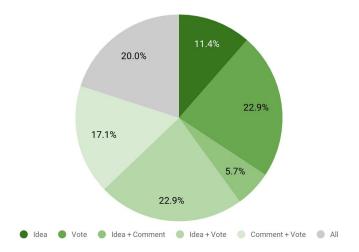


Figure 3. Contribution Results

Table 1 shows that while the number of ideas per active contributor and number of ideas per invited participant were higher than observed in similar idea generation events delivered by Era Innovation, the overall participation rate is significantly lower. This is consistent with feedback received during the event which highlighted individual concerns with participating in an online, open innovation forum, as well as an industry preference towards face-to-face engagement.

	Health for Wealth Event	Era Innovation Challenge Average (n=73)
Overall Participation Rate	21.0%	55.0%
Vote to Idea Ratio	2.34	6.51
Ideas per Contributor	1.22	0.29
Ideas per Participant	0.26	0.16
Comment to Idea Ratio	0.83	2.87

Table 1: Comparative outcomes

## 3 Challenge Results

## 3.1 Contributions by Challenge Question

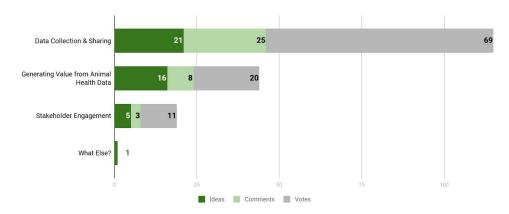


Figure 4: Ideas, Comments and Votes by Challenge Question

As shown in Figure 4 above, the ideas, comments and votes were concentrated to three of the event themes: 'Data Collection & Sharing', 'Generating Value from Animal Health Data' and 'Stakeholder Engagement'. The 'What Else' theme is a standard, generic theme included in all challenges as a mechanism to capture any loose ideas, and therefore is it not unusual for this theme to see low engagement. Participation was strongest in the 'Data Collection and Sharing' theme, followed by 'Generating Value from Animal Health Data' and 'Stakeholder Engagement'.

#### 3.2 Top Ideas by Popularity

Idea Title	Participant Segment	Votes	Comments
Data standards	Steering Committee	12	5
Supporting decision-making	Processor	8	1
Be clever around data collection	Processor	8	0
Everyone a winner	Steering Committee	7	3
Data access principles	Steering Committee	6	1

Table 2: Top five ideas by popularity

Table 2 shows the top five ideas by group-voted popularity. It is important to note that the top 5 ideas were all originally posted during the beta testing phase, and that the contributors of these ideas were either members of the Steering Committee or beta testing group. This may indicate a participant bias towards contributing to existing ideas rather than posting their own.

#### 3.3 Key Themes and Discussions

While data collection and data governance were the key idea themes across the top 5 ideas ('Data standards', 'Be clever around data collection' and 'Data access principles'), the need to provide support to processors and producers in understanding and implementing recommendations based on data feedback also resonated strongly with participants ('Supporting decision-making' and 'Everyone a winner').

As highlighted in Figure 5 below, ensuring data usability and the availability of actionable insights emerged as the most common themes across the event, with 42% of ideas (not including the top 5) relating to this topic. According to participants, usability could include the following:

- ensuring peri-mortem data is reported in a way that allows a producer to explore variations
  within individual lots, or in comparison to other lots processed through the same plant
  ('Data must be in the correct context to be useful');
- analysis that combines or includes data collected from all inspection stations ('Three priority ideas') or;
- linking reports to fact sheets relating to specific conditions with an aim in providing information or options to manage the condition ('Factual Advice?').

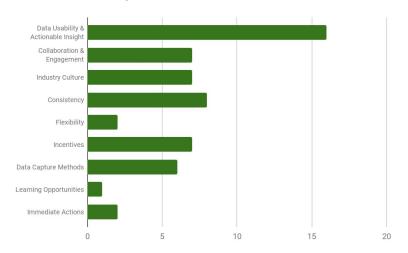


Figure 5. Ideas by emergent themes

However, participants also felt strongly that processors and producers should have flexibility to decide when and how to best use reported data within their individual businesses. For example, the idea 'Symbiotic information gathering which can be applied individually to a business', which received four votes, suggests that "Information gathering systems ought to be based on the same uniform principles but an establishment has the right to use and manage the information for its suppliers as per its own perceived economic advantage and benefit."

Consistency in the standards, principles, terminology and methods of data collection and sharing was the second most common theme, with 21% of ideas (not including the top 5) addressing how consistent systems and processes would impact the potential to capture value from animal health data. The need for consistent language and terminology resonated particularly strongly, and was referenced in three ideas, 'Common language - fact or fiction!', 'Keep it Simple' and 'Three priority ideas'.

A number of ideas also discussed the importance of clearly articulating the benefits of data collection and sharing systems, including opportunities to align these to processor and producer incentives, as a mechanism to promote adoption. Suggestions for such incentives included a move to a value based payment structure ('It's a matter of trust' and 'Show them the money'), using consumer drivers to develop parameters for remuneration ('Working together to achieve a desired product.') and defining benefits to stakeholders including financial and other benefits to producers and processors ('As a suggestion...').

See Appendix A for a full transcript of ideas, comments and votes.

#### 3.4 Most Active Contributors

A ranking of contributors by volume of content created, including weighted scores for ideas, comments and votes posted as well as votes received, identifies the Challenge's top contributors as shown in Table 3 below. The weighted scoring allocates each participant 20 points for posting an idea, 5 for a comment, 2 for comments received and 1 point per vote cast and received. While variances on this weighting can be applied, the general intent is to identify those participants who were particularly engaged during the event.

Name	Ideas	Comments	Comments Received	Votes Cast	Votes Received	Weighted Score
Processor	5	2	5	2	2	124
Steering Committee	3	3	6	6	20	113
Processor	1	14	-	16	-	106
Vet	4	-	1	3	5	90
Consultant	3	-	1	1	1	64

Table 3: Top five most active contributors

## 3.5 Contributions By Segment

Contributions were relatively evenly spread across all segments, with Processors shown to be the most active segment over the total event duration collectively contributing 11 ideas, 18 comments and 60 votes (see Figure 6). This was followed by the Steering Committee and Veterinarian segments which contributed 7 ideas, 9 comments and 15 votes, and 9 ideas, 4 comments and 10 votes respectively. Consultants and Providers were also highly active on the platform, generating 8 ideas, 4 comments and 7 votes.

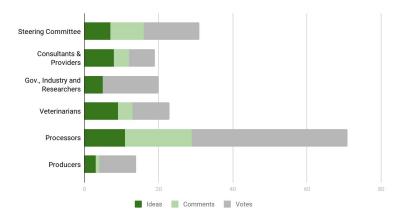


Figure 6. Contribution by Segment

#### 4 Recommendations

An analysis of the contributions has resulted in a number of practical recommendations on how the Health for Wealth Steering Committee could proceed with the implementation phase:

- Design data classification standards and approach: this process should be led by a
  cross industry committee which prepares an initial draft and then engages influencers such
  as vets, livestock agents and rural merchandisers for review and feedback. These
  standards should focus on enabling consistent and accurate data capture using common
  language and definitions.
- Pilot program: Identify a platform to conduct a small scale, cross-species pilot to test the standards, seeking feedback from participants on the types of data they require and how they intend to, or would like to use data. The standards and approach should then be refined as needed.
- Promoting adoption: Noting that adoption of data standards will occur only if processors
  and producers can clearly see the value or quantifiable benefit, it would be beneficial to
  provide advice on the tactical options available to producers to make it easier for them to
  take action (i.e. do nothing, cull, treat, vaccinate etc.).

The Health for Wealth online collaboration event has also provided valuable learning regarding the effectiveness of online platforms as a mechanism for industry engagement. A number of further considerations will help ensure that maximum value and learning can be derived from this approach:

• Improving engagement in online collaboration: participation data, combined with individual participant feedback received during the event indicates that the industry may not be prepared to engage via an open, online collaboration platform, instead maintaining a preference for face-to-face engagements. Therefore, an option for future online events may be to consider the further segmentation of the participant group, and to deliver discrete events (online 'safe spaces') for each group e.g. segmented by organisation or role, supplemented by face-to-face engagement activities.

Additionally, establishing a clear communications strategy including sufficient pre-event notice may assist in generating early interest in the event, leading to fewer participants not engaging with the initial invitation email.

- Closing the communications loop: once ideas have been assessed, it is important that
  participants are informed of key decision results and any concrete implementation plans. If
  the communications loop is not closed, participants may conclude that their efforts have
  ended up in a 'black hole', potentially lowering their willingness and motivation to
  participate in future collaborative initiatives.
- Idea evaluation criteria: as the Health for Wealth Steering Committee considers the implementation of the ideas generated, it may be valuable to define criteria against which each idea can be reviewed and evaluated.

# 5 Appendix A - All Idea Content (alphabetical order by title)

Content is provided verbatim.

Title	Nil. Anonymous contribution.
Submitted By	Anonymous

One of the things that needs to be addressed right up front is the language used to report conditions identified at peri-mortem. The language needs to be modernised and most importantly mean something useful to veterinarians who are often times asked by their producer clients for their interpretation of abattoir feedback. Eg. Pyaemia pops up as a cause of total condemnation. I have some thoughts as to what that might mean (septic carcass?) but I then think to myself how does a meat inspector make that call on the chain. There are plenty of other examples. Once this is completed every report should be accompanied by supporting evidence; photo, description of lesion. Supporting evidence obviously adds to cost but would add further value to any feed back. Getting the language right is the critical thing.

Votes	Nil.
Comments	Nil.

Title	Access to routine test combined data from Vet Labs
Theme	Generating Value from Animal Health Data
ISUb-Cluestion	What are the top 3 priorities for the Health for Wealth project to tackle, in order to fast track consistent reporting, recording and analysis of animal health data?
Submitted By	Vet

Veterinarians and producers need to know the rates of Johne's disease and Caprine Arthritis Encephalitis in Australia - both need to be reported to the OIE yet only JD is notifiable (CAE only in Victoria). Vets can only advise their clients the best way if they know how many carriers of these 2 diseases are around. The results would be biased as the better & more aware producers would test but better than the no results that we currently have. Combining test result data would give some benchmarks to the effectiveness of deregulation of JD in cattle and the Goat Industry Council of Australia's CAE awareness campaign

Votes	Nil.
Comments	Nil.

Title	Allow for Future Pathology Testing
Theme	What Else?
Sub-Question	What other ideas or suggestions
Submitted By	Processor

I note the comment that many of the diseases/conditions being assessed are quite generic, for example arthritis and pneumonia/pleurisy can be caused by many different pathogens. I am thinking with developments in pathological testing that we may also need to consider specific pathogens such as Erysipelas versus Clamydia and other bacteria for cases of arthritis in lambs. If a producer has an issue with arthritis they may be able to take blood tests to determine which pathogen is causing their problem and then tailor a solution for their flock. At this stage this may not be relevant, but it seems could be the future and may need to be considered now, when developing systems for the future.

Votes	Nil.
Comments	Nil.

Title	As a suggestion
Theme	Generating Value from Animal Health Data
Sub-Question	
Submitted By	Producer

- 1. Robust and logical standards / business rules.
- 2. Clearly define benefits to stakeholders (financial benefits to producers and processors, as well as all the other benefits reputation, risk, potentially increased body of evidence for technical barriers, increased efficiency in regulatory / integrity systems, preparing for VBM / distributed ledgers, etc etc)
- 3. Form a cross-species steering group to develop and deliver a plan.

Votes	1
Comments	Nil.

Title	Barriers to animal health data collection
Theme	Data Collection & Sharing
Sub-Question	What are the key barriers to overcome?
Submitted By	Provider

There are a number of barriers to the collection of data at a practical level. Meat inspector manning levels are currently set without factoring in an element for recording dispositions on each beast/mob. In works where Departmental inspectors are performing all online inspection comprehensive health data collection has not been attempted so the IR issues are an unknown.

The capture of health data on high throughput mutton chains may represent some particular challenges depending on meat inspector manning levels.

Likewise a common language to describe diseases and conditions is fundamental to ensuring the usefulness of the data base.

At a plant level many managers are yet to be convinced as to the value of collecting data especially in mutton plants where a good % of the kill is sourced from saleyards.

At an industry level the cost burden of maintaining the data base and the access to data issues will need to be resolved early in the piece because determining the value proposition is dependent on these among other factors.

Votes	Nil.
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Comments	Nil.

Title	Be clever around data collection
Theme	Data Collection & Sharing
Sub-Question	What are the key barriers to overcome?
Submitted By	Processor

Data entry in manual system takes time. On a fast moving sheep chain a carcase or offal set can move past every 6 seconds. Giving inspectors the maximum amount of time to inspect by providing a smart system of data collection would encourage the inspection to be done and the data to be collected. For example:- voice recognition: augmented reality, lung scoring may be able to be done by digital imaging.

Votes	8
Comments	Nil.

Title	Collaborating (or lack of) on data-related projects
Theme	Data Collection & Sharing
Sub-Question	What are the key barriers to overcome?
Submitted By	Vet

One of the major barriers is the lack of integration in both collection and sharing.

There is a plethora of information that is collected but under-utilised due to many factors, not limited to, but including -

- 1. Lack of knowledge of where the repository of information sits
- 2. A general perception of fear about sharing data
- 3. Competitiveness and/or fear of the loss of a competitive edge if information is shared.
- 4. Lack of collaboration many organisations/people doing the same thing, without integrating their approach.
- 5. Loss of organisational knowledge of all of the above as people within industry move.

Whilst some projects may have a confidentiality component, the flow-back of information on related projects could be highly beneficial.

Votes	1
Comments	Agreed we need to collaborate across the industry especially with respect to diseases. This will ultimately grow the industry through acknowledgement of higher levels of animal welfare food safety reduced production losses.

Title	Common language - fact or fiction!
Theme	Data Collection & Sharing
Sub-Question	How should the data collection process be done? What enablers are needed
Submitted By	Provider

The key to successful data collection and analysis is the need to ensure that all participants are using the same language - this is not necessarily the case across the livestock industries. Therefore the first step should be to ensure there is a common language and definitions in place across all participants. If there is different terminology and associated definitions being applied then there needs to be standardisation applied prior to the collection of the data.

Votes	2
Comments	Completely agree but some of us have been collecting data for some years now so we must be sure that all existing data can be incorporated into any new data definitions.

Title	DAnimal Health data capture
Theme	Data Collection & Sharing
Sub-Question	What are the key barriers to overcome?
Submitted By	Provider

The data collection has to occur at the point post mortem inspection and the enablers are easy data capture at the point of inspection with particular emphasis at plants with high rates of through put.. There also needs to be some audit and statistical review of the data to detect errors in entry and variation due to inspectors.

Votes	Nil.
Comments	Nil.

Title	Data access principles
Theme	Data Collection & Sharing
Sub-Question	How should the data collection process be done? What enablers are needed
Submitted By	Steering Committee

It is important that there are key principles around data accessing, sharing and security. These principles will assist in linking or allowing platforms to talk to each other. It will also encourage and support collaboration across commercial businesses.

Votes	6
Comments	Governance rules for access to security of data must be agreed by stakeholders

Title	Data ambiguity	
Theme	Data Collection & Sharing	
Sub-Question	N/A	
Submitted By	Vet	

Most of the data yielded from peri-mortem inspection will in fact be ambiguous: what will be reported are generic conditions like "anaemia" and "pneumonia" which can be the outcome of a number of diseases, within and between species.

Notwithstanding that generic data can still be useful, it is still important that the design of a data classification sheet be as unambiguous as possible. As an example, there is a classification, used in the export industry, of TB, which seems quite unsatisfactory, as it can mean anything from bovine TB, to bird TB, to so called TB which is not TB in the accepted sense, but tuberculous like lesions derived from mycobacteria in trees milled for sawdust.

To help minimise ambiguity of data, the advice of a veterinary pathologist, as part of a pilot project, should be considered.

Votes	1
Comments	Nil

Title	Data must be in correct context to be useful	
Theme	Generating Value from Animal Health Data	
Sub-Question	How should peri-mortem data be best reported	
Submitted By	Provider	

Peri Mortem data needs to be reported in a context in a way that allows an individual producer to make informed decisions. Variation in compliance could be expressed in two main ways. Firstly, give a producer an indication of how his compliance rate compares to other lots processed through the same plant for the same specification around the same time of year. It is important to compare apples with apples to report back where their compliance sits with other producers who are trying to achieve the same goal. After reviewing their data, it may prompt a producer to ask the fundamental question to improvement. "Why?" Including a price signal will add urgency to the Question so it becomes "Why!!!!!?, How do I change?"

Secondly give a producer an opportunity to view the variation within their own lot in context of their own farming data. They may then be able to discover that there is a genetic component or a management component that is responsible for their variation. There are hurdles to overcome for the second part with producers not collecting reliable data or collecting any data at all. It is important that producers are not encouraged (or allowed?) to view their data in a bad context. For example, comparing data from one processing lot to another of their own processing lots from a different plant, or different time of year. This will lead to poor decision making.

Votes	1
Comments	The Enhanced Abattoir Surveillance system puts out an annual report. I would like to see this data analysed by an epidemiologist. I think that this should be ongoing across the industry to ensure the context is messages are appropriate.

Title	Data sharing between processors and producers			
Theme	Theme Data Collection & Sharing			
ISUb-Cluestion	What strategies can we implement to ensure the sharing of information leads to improved profitability			
Submitted By	Provider			

Producers may have to be assured that processors will not be able to create black lists through unlimited access to the data base. This may mean that processors will only be able to access the health data records captured on their own plants. Producers may however choose to share all their animal health data records with a particular processor to enhance the price offered for their animals. Processors will need to be assured that the gathering of data will result in improved stock quality because of changed husbandry practices and thus justify the effort of capturing the data.

	0	<b>3</b> 1	•	•	•	0
Votes	Nil.					
Comments	Nil.					

Title	Data standards		
Theme	Data Collection & Sharing		
How should the data collection process be done? What enablers are needed			
Submitted By	Steering Committee		
Need to ensure value generated	info is collected in the same manner across industry so that there can be greater .		
Votes	12		
Comments	Since the data will be collected voluntarily there needs to be an option for processors not to collect ALL possible data - they can opt out of some data. But I agree that when they DO collect data it needs to mean the same thing across the industry.  This is a must to support consistency in data capture feedback  Data standards must be developed then followed for any more general aggregation analysis to be successful.  PS Those data standards must be applicable to the live animal as well as the animal after slaughter		
	Data standards definitions is vital to support consistency in data capture feedback systems.		

Title	Digital recognition recording		
Theme	Data Collection & Sharing		
Sub-Question	What are the key barriers to overcome?		
Submitted By	Vet		
Digital recognition and recording of lesions and inspection parameters, such as objective measurements, digital camera, face-recognition technology. Remove human element (line spee consistency) and mandate consistent reporting.			
Votes	-1		
Possibly but I expect this sort of technology would be some time away. I proven that a subjective trained assessor can be very valuable even mothan objective measurement technology - at this stage			

Title	Driven by industry		
Theme	eme Stakeholder Engagement		
Sub-Question How should the 'Health for Wealth' group engage			
Submitted By	Steering Committee		
	Need to ensure industry is driving this area forward. Suggest developing either an advisory committee or leverage off an existing group that has the right skills and representation		
Votes 3			
Comments	In addition to leveraging off existing groups need to also leverage off other meetings industry forums gathering of relevant stakeholders where appropriate to spread the Health4Wealth message also give project updates outcomes to the broader industry		

Title	Easy information capture	
Theme	Data Collection & Sharing	
Sub-Question	How should the data collection process be done? What enablers are needed	
Submitted By	Processor	

The idea of a voice recording system would be one of the easiest way to ensure information is captured at chain speed. Chain speed (most have ~6 seconds to do their job) will be a barrier in ensuring accurate and consistent information is able to be captured. Development of an easy to use system will be needed to ensure anyone is able to do it.

by com will be included to chear any one to able to do it.			
Votes	3		
	Agree that we need to have accurate systems that work at commercial speeds. Using objective measurement technologies may offer significant opportunities.		
Comments	Data capture technology continually changes over time what may be suitable for one specific user/ environment may not be suitable for another user/ environment. It is not which technology that is important it is what is being captured it's accuracy it's suitability that is important. Use whatever technology is available suitable for the job at the time as long as the underpinning data st ards are followed. Voice systems have a place but not more or no less than many other technologies. The decision on which technology to use is a commercial decision. Determining the st ards for what to capture with the various technology is the non-commercial industry decision.		
	I agree with comment above that there are other effective options for data capture - horses for courses. I have seen a touch pad recording system operating at 650/hr in the Netherlands in conjunction with a change in inspection activities.		

Title	Encourage champions
Theme	Data Collection & Sharing
ISUb-Cluestion	What strategies can we implement to ensure the sharing of information leads to improved profitability

# Submitted By Processor

If the project provides the data capture, reporting and analysis tools, champions of both the producer and processing sector will take advantage of the opportunity and therefore challenge their colleagues to keep up. Trying to bring everyone along together although noble in intent will allow the cynics to hold everyone back.

Votes	5
Comments	I agree.

Title	Everyone a winner
Theme	Data Collection & Sharing
ISUb-Question	What strategies can we implement to ensure the sharing of information leads to improved profitability
Submitted By	Steering Committee

the project has to help processors pass on information that can help producers improve their productivity/yield etc. So it means helping producers work out how they can fix the problems detected at perimortem. If producers don't get a direct benefit then they won't respond.

Votes	7
	A system that include solutions to issues will be necessary such as that in LDL. For diseases this may/WILL need further development to point out the extent of losses as well are the benefit of certain responses.
Comments	Good morning. I think what you are saying is spot on! If there is no benefit for the producers they won't respond! But situation at the moment is ( in our situation) that the processor is copping a lot of cost due to poor health of animals. These cost are not being forwarded to the producer. One of the

for the producers they won't respond! But situation at the moment is ( in our situation) that the processor is copping a lot of cost due to poor health of animals. These cost are not being forwarded to the producer. One of the incentives they are using in Europe is a penalty system for unhealthy pigs. This penalty system motivates producer over there to be more active in solving health issues on farms.

There will be quite a network of expertise required to assist fixing identified problems. This can come from a variety of commercial government sources. The first step is to demonstrate where problems are or more succinctly who has the problem.

Title	Factual advice?
Theme	Generating Value from Animal Health Data
Sub-Question	How should peri-mortem data be best reported
Submitted By	Processor

There could be benefit in linking reports to fact sheets relating to specific conditions with an aim in providing information on management options for the condition, costs and expected benefit to the producer i.e. expected reduction in mortality, yield increase etc. Data may also be useful in showing/quantifying benefits and return on investment when comparing pre and post treatment.

Votes	Nil.
Comments	Agreed see the LDL solutions to feedback as an example for carcass feedback

Title	Getting started
Theme	Generating Value from Animal Health Data
Sub-Question	What are the top 3 priorities for the Health for Wealth project to tackle
Submitted By	Steering Committee

## Top priorities:

- get some standards in place so information can be collected uniformly
- develop some industry agreed rules around aggregated data so that companies are comfortable and clear about what data and what level is being shared for what purpose
- ensure information is presented back to producers in an 'actionable' format. Needs to be easy to understand

Votes	6
Comments	Nil.

Title	Its a matter of trust
Theme	Generating Value from Animal Health Data
Sub-Question	What are the key challenges and opportunities
Submitted By	Processor

The current averaging system used around co-products yields to pay farmers sends no price signals back to the farmer to encourage change. A move to a value based payment structure would help, however this move would necessitate a drop in per kg carcase price which is where the averaged amount is now held. Taking farmers on this journey whilst maintaining trust will be key.

Votes	2
Comments	Yes we need to get away from price averaging but I do not see why this prevents a price \$/kg HSCW being used. I am currently thinking that disease is a population issue rather than an individual animal issue. Although we may be penalised on an individual animal basis ultimately it is the prevalence at a farm level that causes the significance of the price signal Thought for discussion The University of Adelaide has developed a continuous pricing model that has been trialed in MLA's Regional Combinations Project conducted by the late Bill McKiernan. This is about to be trialed by the Limestone Coast Red Meat Cluster.
	Most pig plants will deduct \$\$ for loss of offal via ascarids or anticoagulants.  Averaging works to a point - then they deduct. Most producers get feedback now on pleurisy - but the meatworks struggle on with 70% pleurisy lines -unsure what value the new system adds. I received perfectly adequate client information on defects by

Title	Keep It Simple
Theme	Data Collection & Sharing
Sub-Question	How should the data collection process be done? What enablers are needed
Submitted By	Processor

pig in 3 cases from 4 export plants. The data was a bit different - but easily useable

For a system like this to be successful and to be supported by as many stakeholders as possible, it needs to be simple and understandable. First we need to identify what we want to achieve. In my opinion:

1 healthier livestock; that will

2 benefit the farmer by better growth and less condemnation; which

3 as a result will benefit the abattoir with less labor cost.

Everything else needs to be seen (at this stage) as a by-product.

To create a workable system we need to identify:

- what system are we going to put in place? Is it necessary for all stakeholders to use the same system? (we are going to start with a CSB system)
- what terminology are we going to use? Is it possible to get everyone on one page?

With a data capturing system and the right terminology in place, we could start collecting data. Next step will be the communication to the farms. We need to create reports that are easy readable for the producer. Now it is up to the producer to act or not to act. Historic experience has thought me that some producers start acting the same day, some other producers don't. The trigger to act is mostly a financial one.

This is basically how I think the system should work. All prep work and trials are finalized, and I'm hoping to start by the end of this year.

Votes	Nil.
Comments	It would be nice to have a system created new but this will lose much valuable data that already exists. We have 10 years data that is already of value should be used going forward. The SA Sheep Enhanced Abattoir Surveillance (EAS) data is mob based will tell us a lot about prevallence. Ultimately it will be great to be able to get this on individual animals but there are issues with timeliness to record such data individual data also requires hook tracking which is only now being implemented for sheep so the SYSTEM NEEDS TO BE ABLE TO EVOLVE.

Title	Meaningful, simple and consistent
Theme	Data Collection & Sharing
Sub-Question	How should the data collection process be done? What enablers are needed
Submitted By	Processor
Understanding the minimum data required to achieve the desired outcome for stakeholders will be important. A documented system of conditions and scoring methodology would be helpful in maintaining consistency, clarity and training within industry.	
Votes	4
Comments	Nil.

Title	Measure to manage
Theme	Generating Value from Animal Health Data
Sub-Question	What do we need to consider to ensure that peri-mortem data is used
Submitted By	Industry
Provide producers with a tool to compare cost-benefits of various options, e.g. do nothing, cull, treat, vaccinate	
Votes	Nil.

Comments	Nil.

Title	Meat inspection, a value adding activity.
Theme	Data Collection & Sharing
Sub-Question	How should the data collection process be done? What enablers are needed
Submitted By	Processor

To avoid duplication of activity the meat inspection task should also be recognised as the best position to conduct animal health surveillance. A duality of function. The inspection task doesn't need to change in any significant way but needs to be done diligently and the information about that animal captured for future analysis and reporting, task

Votes	4
Comments	Nil.

Title	Mining social media data
Theme	Data Collection & Sharing
Sub-Question	How should the data collection process be done? What enablers are needed
Submitted By	Vet
	one for flu and people. Could similar techniques be used for mining Facebook pages an livestock keepers and their group pages?
Votes	-1
Comments	This sounds interesting however I'm not sure understand what you mean.  Could you please exp a little bit?  Not sure how they did it but looked at social media eg tweets searched for flu cough etc mapped where it was
	I read this today- in India they are mining big data to find villages at risk of children entering modern slavery see http://news.trust.org/item/20170531132856-tcs1r/

Title	Much to learn from previous work on producer response to abattoir data
Theme	Generating Value from Animal Health Data
Sub-Question	What are the key challenges and opportunities
Submitted By	Consultant

Paton, M. (1994) Utilization of Meat Inspection Findings to Improve Livestock Production. Research Project DAW.034. Report to the Meat Research Corporation.\*\*\*\*

Paton, M.W., Sutherland, S.S., Rose, I.R., Hart, R.A., Mercy, A.R., Ellis, T.M. (1995) The spread of Corynebacterium pseudotuberculosis infection to unvaccinated and vaccinated sheep. Australian Veterinary Journal. 72: 266-269.

Paton, M., Rose, I.R., Hart, R., Sutherland, S., Mercy, A., Ellis, T. (1996) Post-shearing management affects the seoincidence of Corynebacterium pseudotuberculosis infection in sheep flocks. Prev. Vet. Med. 26: 275-284.

Paton, M., Dowling, E. (2001) Risk Analysis Survey of Sheep Meat Processors for Improved Recovery of Offal and other Co-products. MLA Project PRCOP.029.

Paton, M.W., Walker, S.B., Rose, I.R Watt, G.F. (2003) Prevalence of caseous lymphadenitis in sheep flocks and usage of caseous lymphadenitis vaccines by sheep producers. Australian Veterinary Journal. 81:91-95.

Votes	Nil.
Comments	Agreed more recently Joan Lloyd has two publication on arthritis in lambs one on the effect of short tail length (BAD) another on the prevalence of arthritis cause by Clamydia. We have a further paper currently being reviewed looking at trimming production losses caused by arthritis in lambs. These sorts of studies need to be coordinated across the industry to systematically look at all important diseases rather than Ad Hoc once of investigations.

Title	No more workshops
Theme	Stakeholder Engagement
Sub-Question	How should the 'Health for Wealth' group engage
Submitted By	Vet

I agree that engagement needs to be industry driven.

Producers are suffering from workshop fatigue, so we need to look to some innovative ways to engage with them on this.

There is an overwhelming amount of new information being thrown at producers, and often the only time they will chase information is when it suddenly becomes regulated or legislated.

It would be great if we could utilise systems in place, such as integrity systems to build a picture of the value of the feedback we could provide and empower them to have the capacity to make change to improve their productivity and profitability. In other words link the elements to show a road map rather than have a disjointed approach.

Many producers are slowly and begrudgingly taking up technology (because they genuinely need to in order to stay afloat), but nothing will ever cut the mustard like face to face time.

Perhaps this is why most producers have strong connections with their livestock agents, rural merchandisers etc. Maybe we need to get groups such as these on board with providing feedback?? (Confidentiality issues appreciated). In contrast, the relationship/connection most producers have with their industry bodies is not much to write home about.

Are livestock-allied industries a valuable resource we need to consider more?

Votes	1
Comments	Nil.

Title	Old news is irrelevant
Theme	Generating Value from Animal Health Data
Sub-Question	How should peri-mortem data be best reported
Submitted By	Industry

The disease data must find its way back to producer as soon as possible (at the same time as, or sooner than, they get the cheque in the mail, or the deposit in their bank account).

Votes	Nil.
Comments	Nil.

Title	On farm risk factors
Theme	Generating Value from Animal Health Data
Sub-Question	What are the key challenges and opportunities
Submitted By	Researcher

"There are some disease/conditions in the sheep industry where we don't fully understand the on-farm risk factors. A mechanism such as app could be used to capture this data and value add, once this is set up with a critical mass it could be used on an ongoing basis to capture risk factors and response to interventions"

Votes	1
Comments	Nil.

Title	Pilot project
Theme	Data Collection & Sharing
ISUb-Cluestion	What strategies can we implement to ensure the sharing of information leads to improved profitability
Submitted By	Vet

Obtaining consistency of data, and getting value to producers from the data, is not going to be straightforward. If not already envisaged, a pilot project across species should be considered to explore the opportunities and weaknesses identified in the H4W process.

Votes	1
	We need to progress through all diseases in a coordinated manner. Project time and funds pending.
Comments	A pilot project could focus on one key heath issue for per species. I underst for sheep that seed infestation is a big issue. (H4w issue?? Not sure) However focusing on one key Health issue can simplify the data capture reporting needs but still deliver an outcome learning from the process. This would provide a platform to exp to other health issues. Plck an issue that is easy to identify at line speeds to simplify data capture.

Title	Plan it
Theme	Stakeholder Engagement
Sub-Question	N/A
Submitted By	Producer

As you would engage on any other project. Define engagement objectives needed to get stakeholders to collect/share/use data, identify stakeholders (there's more than just producers and processors), determine level of engagement and tools needed to achieve objectives, and then execute the plan. Will require a range of tools, from information-providing, to asking for feedback, to actively involving key stakeholders in ways to achieve the objectives.

Votes	2
Comments	Nil

Title	Show them the money
Theme	Generating Value from Animal Health Data
Sub-Question	How should peri-mortem data be best reported
Submitted By	Processor

The data must be presented in a way that provides the right price incentives to make improvements on farm attractive. Carcase yield and quality is an obvious area to show how improvements in animal health may show improvements in returns to the farmer The less obvious area is around co-products. The current averaging system sends no price signals back to the farmer to encourage change. A move to a value based payment structure would help, however this move would necessitate a drop in per kg carcase price which is where the averaged amount is now held. Taking farmers on this journey whilst maintaining trust will be key.

Votes	5
	I agree that the way in which the data is presented is key. In some cases while there may have been some incidence of an animal health condition this might in fact be a really good result for that category of animals in that season for that region. Having some context around the information will be critical to ensuring that producers act on the right things to make a meaningful difference to how their animal perform.
Comments	See comment to previous issue. For sake of discussion lets suggest that bruising is a disease resulting from bad management say retaining horns or bad yard design or h ling. In the Limestone Coast trial currently being conducted we have included bruise score in the continuous pricing system. Further I suspect the price signal will be a population function across the farm rather than sit with individual animals.

Title	success of H4W is F2F
Theme	Stakeholder Engagement
Sub-Question	N/A
Submitted By	Steering Committee
	he best way to communicate with stakeholders. Visit, armed with clear concise what, why, how, who and what they would like to see achieved
Votes	4
Comments	So we don't want forums but we do want Face to Face. I presume that means no MLA road show but rather local consultants vets agents providing support to individuals or small groups. This comes at a cost as these people generally work for themselves. Perhaps MLA MDC could fund 50% of costs for the first 2 or so years. First in will get the assistance in this case. Obviously this needs to be supported by case studies with Benefit:Cost Analyses.  Face to face is one of a number of methods used to deliver information.

Title	Supporting decision making
Theme	Data Collection & Sharing
Sub-Question	What strategies can we implement to ensure the sharing of information leads to improved profitability
Submitted By	Processor

Ensuring there is understanding on what the data or information means is imperative to ensure change can occur. Making sure producers have enough support in making decisions and acting on the information is imperative. Processors will need to have a role in this support system along with information platforms such as LDL.

Votes	8
Comments	Need to recognise that the information collected will have its limitations. Firstly there will be inconsistency between operators plants etc. Then there is the limitation that much of the information will be non-specific e.g. anaemia is not the outcome of one specific disease but can be the outcome of a number of diseases varying between species. Specific diagnosis from peri mortem data will be uncommon e.g. Erysipelas in pigs. So producers will in the main need assistance to underst what the data means: Vets in the first case whether private or Government. They might also need help to understand what changes in prevalence mean.

Title	Symbiotic information gathering which can be applied individually to a business.
Theme	Data Collection & Sharing
Sub-Question	N/A
Submitted By	Steering Committee

Every establishment is important in its own right. Some are linked through ownership and some are totally independent. Information gathering systems ought to be based on the same uniform principles but an establishment has the right to use and manage the information for its suppliers as per its own perceived economic advantage and benefit. Were about developing the one system, they're about deciding how to use the information...

#### needs to

Votes	4
Comments	Nil.

Title	They need the value equation!
Theme	Stakeholder Engagement
Sub-Question	How should the 'Health for Wealth' group engage
Submitted By	Researcher

Sheep industry and cattle We need to put a value equation around these conditions for producers, to make sensible transparent decisions and apply management decisions to areas of disease control with the highest return.

Sheep producers get results for up to 16 conditions, which can be quite overwhelming. Put a dollar value around them and better still a ROI will allow them to make better decisions or actually make a decision.

Votes	1
Comments	Nil

Title	Three priority ideas
Theme	Generating Value from Animal Health Data
Sub-Question	What are the top 3 priorities for the Health for Wealth project to tackle
Submitted By	Vet

- 1. Consistent inspection processes, supported by industry-agreed terminology, inspection standard verification and reporting.
- 2. Analysis that combines/includes data collected from all inspection stations MI, AQIS and so forth to give a cohesive idea of the results of inspection.
- 3. Usable feedback to producers

Votes	2
Comments	Nil.

Title	User needs
Theme	Generating Value from Animal Health Data
Sub-Question	What do we need to consider to ensure that peri-mortem data is used
Submitted By	Consultant

Pig vets will benefit by having partial and total condemnation data to consider, but there will be less diagnostic and severity data than obtained from PHMS provided by consultant veterinary services. Feedlot (cattle and sheep) health services are likely to need severity data for some conditions in order to judge cost-effectiveness of disease interventions.

And to support all this there will need to be a paradigm shift for inspection to record those minor lesions that may flag new disease incursions to a herd/flock or reflect the extent of infection within a herd (remembering that much pathology resolves, mild lesions may reflect extensive infection at an earlier age with adverse effects).

Votes	Nil.
Comments	Nil.

Title	Users and beneficiaries
Theme	Generating Value from Animal Health Data
Sub-Question	What do we need to consider to ensure that peri-mortem data is used
Submitted By	Consultant

Correct interpretation of the data will be critical for the reputation of abattoir data. In this context animal health services are the "users" and the producers are the beneficiaries, in large part. Incorrect interventions will quickly bring the system into disrepute. As noted above, the data will be largely syndromic, not diagnostic. It should flag the need for more skilled diagnostic investigation, not chucking the latest drench at it to find out it was money down the drain. The initiative needs to be

championed to extensive large animal veterinary services to support the delivery of herd health management services. That engagement is critical in this development stage to understand their "need" which will inform much of the other discussion on reporting; the system should reflect the needs of the users (go to start).

Votes	1
Comments	Nil.

Title	What next?
Theme	Generating Value from Animal Health Data
Sub-Question	How should peri-mortem data be best reported
Submitted By	Industry

Suggest possible alternatives for each reported condition (e.g. vaccinate for CLA, control cats & wild dogs for Sarcosporidiosis). The intervention to reduce disease/condition prevalence at slaughter will mostly occur on-farm.

Votes	Nil.
Comments	Nil.

Title	Who gets the belting with the big stick?
Theme	Generating Value from Animal Health Data
Sub-Question	What do we need to consider to ensure that peri-mortem data is used
Submitted By	Vet

From a processing perspective, to collect animal health data (disease specific) in some areas, can slow the chain speed in order to enable sufficient time for this to be reported. However there are benefits in improved yields for processors in secondary products if this data can be fed back to producers in order to enable change on-farm, which subsequently reduces the incidence of disease in the supply chain, therefore improving yields in offal and by-products and reducing wastage. Considerations here are (1) the time and costs to the processor and (2) the ability to flag management or disease issues to the producer in a usable format. Some processing plants are also being dealt corrective action reports for welfare issues on arriving stock, with the expectation that they should push back on producers to improve the welfare of the animal in muster, pre-loading, loading and transport. Isn't this where industry should be taking the lead, rather than a push-back approach? I think the consideration here is not giving the needle to the processors, but addressing the cause. From conversations with some processors, welfare issues reported to State Government Departments (in certain states) are rarely followed up. In other areas where this approach has been used (such as NLIS tagging cattle at saleyards after arrival), the consigner/owner of the stock is usually invoiced for the procedure of dealing with the tagless animal to apply an emergency tag. Shouldn't there be an opportunity for the same approach? Or is no one to blame (person-in-charge), so the processor gets the big stick and is left to clean up the mess?? Integrating the data from arrivals to ante-mortem to condemnation conditions is a feedback loop that can result in better practices across the supply chain.

Vo	otes	1
Co	omments	Ultimately everyone gets hit with the big stick if we do not coordinate ourselves take responsibility for what we can each do. Note animal welfare is NOT directly required

by the consumer or anyone else in the value chain it IS one of our LICENSES to
operate if we lose that license we have a very big problem.

Title	Working together to achieve a desired product.
Theme	Data Collection & Sharing
ISUb-Cluestion	What strategies can we implement to ensure the sharing of information leads to improved profitability
Submitted By	Producer

Processors and producers need to have a greater understanding of what the end consumer desires. These drivers should then become the parameters for remuneration to ensure the correct incentives are applied to encourage change. These payment parameters will need to be government subsidised to aid with the transition time taken for genetic change. The key is identifying the desired measurements to achieve what consumers desire and producing carcase feedback for producers to be able to measure achieve these goals.

Votes	1
	I agree with the focus on the consumer value to the consumer driving remuneration change. I do NOT agree that the government should subsidise these payments. I do agree that in the case of livestock diseases with animal welfare food safety production at risk that industry should drive the R&D to determine where how much is lost in the value chain.
Comments	Good morning. I'm not sure if the intent of this project is to change the quality of meat or the growing process by altering the genetics of pigs. I thought this project was more basic meant to start a communication between farm abattoir where the abattoir can provide useful information to the farm to have better insight in the health of the herd. In sharing this information the farm is able to produce healthier pigs which will benefit both producer processor.