

# **Human and Animal Health Team**

## **Final Report**

*Prepared by the CASA Secretariat*

*Presented to the CASA Board of Directors*

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## Contents

|   |   |
|---|---|
| Background .....                                | 2 |
| Outstanding Recommendations .....               | 4 |
| Recommendations to the Board .....              | 7 |
| Advice to the Board .....                       | 7 |
| Appendix A: Timeline of Reports .....           | 8 |
| Appendix B: Assessment of Recommendations ..... | 9 |

## Background

*Note: A number of reports have been produced throughout the history of the Human and Animal Health Team. For a timeline of reports and their associated authors, refer to Appendix A.*

CASA’s Human Health Resource Group was formed to advise the Board on strategic direction for addressing human health/air issues. In 1997, the group developed a broad framework for a human health monitoring system with the following goals:

- To ensure the availability of timely, high quality data while respecting issues of privacy and confidentiality;
- To ensure that information about human health relative to air quality is made available to the public and decisions-makers; and
- To encourage studies and pilot projects on human health, especially lung health, and to correlate results with ambient air quality data and other relevant data.

The Human Health Project Team (HHPT) was established in 1998 to develop an implementation plan for the 1997 framework. At the November 1998 Board meeting, the Board approved the recommendations from the HHPT, including the formation of a subgroup to develop specific recommendations for implementation of the 1997 framework.

In 1999, the HHPT subgroup produced an implementation plan with 13 recommendations. Taken as a whole, these recommendations constituted a vision for a Comprehensive Human Health Monitoring System (CHHMS) that could be used to gather information on the health of people for the purpose of detecting issues, trends and associations between air quality and health related variables. The process was anticipated to consist of an on-going systematic collection, analysis and interpretation of selected data on health outcomes, air quality parameters and population exposure. Also in 1999, a separate CASA project team named the Animal Health Project Team (AHPT) was formed with the goal of preventing short and long-

term adverse impacts of air contaminants on animal health. Between 1999 and 2003, both the HHPT and the AHPT worked to successfully implement a number of their recommendations.

The AHPT presented their final report and six recommendations to the CASA Board at the March 2003 Board meeting. The AHPT recommendations were accepted by the board, including a recommendation for the establishment of the Human and Animal Health Team (HAHT). The Board agreed to the formation of HAHT, which was tasked with implementation of the outstanding recommendations from the HHPT's 1999 human health framework implementation plan, and the 2003 Animal Health Project Team Final Report.

In 2007, HAHT presented a final report to the CASA Board of Directors. The report recommended that the team be disbanded, although not all outstanding recommendations were complete, primarily with respect to implementation of CHHMS. The government caucus asked for more time to determine if there were other options for implementing CHHMS, and the Board chose not to disband the team.

In 2008, the HAHT received a presentation from Alberta Health regarding a pilot project called the Alberta Real Time Syndromic Surveillance Network (ARTSSN). The team agreed that ARTSSN could be a means of implementing CHHMS and recommended this to the Board, withdrawing the 2007 recommendation to disband the team. The team also recommended that Alberta Health provide a report on implementation of ARTSSN at a future Board meeting.

At the December 2011 CASA Board meeting, Alberta Health presented on implementation of ARTSSN, and the Board decided that ARTSSN did not fulfill the intent of CHHMS as was originally expected. This led the HAHT to reconvene throughout 2012 to review the original intent of CHHMS, and to discuss how to proceed. The team determined that in order to assess whether the goals of CHHMS were being accomplished, an "inventory of parts" was needed of the inputs to the CHHMS, the agencies that contribute to the CHHMS, and how they currently link/coordinate with each other.

The inventory was completed in early 2013, and the HAHT met again to review the following:

- Goals of CHHMS
- Inventory
- Ongoing work that directly or indirectly supports the goals of CHHMS
- Incomplete recommendations

The team discussed what, if any, would be the appropriate role for CASA in ongoing work. The team agreed by consensus that the 2007 recommendation to disband HAHT should be forwarded to the CASA Board for a final decision. The following section of this report contains the rationale for disbandment, outlining the current status of previously incomplete recommendations, as well as advice to the Board on next steps.

## Outstanding Recommendations

Prior to the 2013 deliberations of HAHT, there were 13 recommendations with incomplete statuses from previous reports. The team assessed each recommendation, and agreed on a current status for each, summarized in Tables 1a and 1b below. A detailed account of the team's assessment of each individual recommendation can be found in Appendix B.

Recognizing that the five outstanding recommendations from the 1999 Human Health Monitoring Framework (Table 1a) dealt with implementation of CHHMS, the team chose to consider them as a group as well as individually. Details on current activities and initiatives relating to each of the five outstanding recommendations are shown in Appendix B. It is the view of the Human and Animal Health Team that the recommendations are complete, as they are no longer relevant. The rationale for this determination is:

- Since 1999, there has been a significant change in the manner Alberta Health, the Government of Alberta and its associated agencies identify and respond to issues related to air quality and health.
- While Government of Alberta and agencies have individual mandates, there is a shared responsibility between all parties to address and collaborate on activities or initiatives related to human health concerns and air quality from a variety of sources.
- The work of the HAHT to build an inventory of activities to identify CHHMS inputs not only demonstrates that collaboration between agencies is occurring but that air quality and health is being assessed and is part of routine government processes, responses and activities with other stakeholders like industry, the public and multi-stakeholder organizations like CASA.
- Additionally, larger government driven initiatives or strategies like Integrated Resource Management System (IRMS), Alberta Environmental Monitoring Reporting Agency (AEMRA), Land Use Framework and the Renewed Clean Air Strategy include a recognized importance to protect Albertans from poor air quality. This concept is interconnected and embedded into all streams of policy development, implementation, evaluation and management.
- To have this connection more clearly identified, the HAHT will be providing advice to the CASA Board that presentations about strategies or initiatives from any stakeholder, but particularly the Government of Alberta, must work to describe and identify the linkage of the work to human health protection and air quality.
- There has also been significant increase in the accessibility and availability of data to the general public and stakeholders, particularly non-government organizations and researchers. The data that is available includes air quality sampling, data translation and knowledge, and health outcomes through continued or new initiatives like the GoA Open Data Portal, CASA Data Warehouse, Air Quality Health Index and the Integrated Health Data Application. The process of monitoring and managing data and reviewing possible links

between emissions and human health is an evolving process that will continue to improve over time. New elements are being added as they become available and emphasis on this work continues to improve accessibility to the general public.

- Finally, the table that follows provides a high level demonstration of how each of the recommendations are being implemented although not within the proposed CHHMS model/system. This listing contains examples of current activities with more being identified within the HAHT inventory.
- For each recommendation, it should be noted that one input is proceedings and hearings, which are all public information.

Table 1a: Outstanding Recommendations

| Ref. # | Recommendations   | Status                        |
|--------|---|-------------------------------|
|        | Human Health Project Team – Human Health Monitoring Framework (May 1999)  |                               |
| 1      | <b>Ongoing Activity:</b> AHW to establish a system to manage and monitor the established data base with its six components on an ongoing basis as described in the CHHMS. The data base is reviewed on an ongoing basis to provide an early warning of health effects due to emissions, or links between emissions and human health symptoms or effects, and determine the health status of the population. This will require the cooperation of AENV, RHAs and CASA. | Complete. No longer relevant. |
| 2      | <b>Issues/Actions Identification:</b> AHW to establish a formal process to review human health issues identified through Ongoing Activity under 23 above as described in the CHHMS. A scientific advisory committee (SAC) will be needed to provide scientific oversight on this and subsequent steps.  | Complete. No longer relevant. |
| 3      | <b>Investigation:</b> AHW, with the assistance of AAENV, EUB and RHAs to undertake Investigations identified in 24 above, as described in the CHHMS. Oversight to be provided by SAC.   | Complete. No longer relevant. |
| 4      | <b>Multi-stakeholder Management:</b> AHW in partnership with CASA to establish a multi-stakeholder management group that will function as an Operations Steering Committee as described in the CHHMS. This is distinct from the data management required to operate the system.   | Complete. No longer relevant. |
| 5      | <b>Feedback:</b> New information will continuously feedback into on-going activity. AHW should coordinate feedback as part of the CHHMS.  | Complete. No longer relevant. |

The HAHT then considered the remaining outstanding recommendations and agreed on a status for each. A summary of the outcomes of this conversation are represented in Table 1b and details can be found in Appendix B. It should be noted that Recommendations 12 and 13 did not originate from the HAHT. Rather the Performance Measures Committee forwarded

these recommendations to the HAHT with permission from the Board, asking for the team’s advice. This decision was based on the perspective that, of existing teams, HAHT would be best equipped to provide advice on how to proceed.

Table 1b: Outstanding Recommendations

| Ref. #   | Recommendations   | Status  |
|--|---|---|
| <b>Animal Health Project Team – Final Report and Recommendations (March 2003)</b>          |   |   |
| 6  | <b>Recommendation 2:</b> The AHPT recommends that the proposed complaints/response line, which is part of the approved Human Health Monitoring System, be expanded to enable documentation of and response to animal health complaints related to air pollution.                      | Incomplete. Forward to Board of Directors.  |
| <b>Human and Animal Health Project Team – Final Report to CASA Board (August 2007)</b>     |   |   |
| 7  | <b>Recommendation 1 (consensus):</b> The Human and Animal Health Team recommends that the CASA Board of Directors disband the team.   | The team advises that the Board “revive” and accept this recommendation and disband the team. |
| 8  | <b>Recommendation 2 (non-consensus):</b> Alberta Health and Wellness, working with Alberta Energy and Utilities Board, Alberta Environment and the Regional Health Authorities implement the Environmental Health Hotline of the Comprehensive Human Health Monitoring System.        | Complete. No longer relevant.   |
| 9  | <b>Recommendation 3 (non-consensus):</b> Alberta Health and Wellness, working with other regulators, non-governmental organizations and industry, establish a multi-stakeholder advisory committee to the Comprehensive Human Health Monitoring System.                               | Complete. No longer relevant.   |
| <b>CASA Board Meeting (March 2008)</b>   |   |   |
| 10   | <b>Recommendation 1:</b> The Syndromic Surveillance Network as a means of implementing the Comprehensive Human Health Monitoring System. Therefore, the team withdraws the Non-Consensus Recommendation 1 on the 1-800 number and the Consensus Recommendation 1 to disband the team. | Complete.   |
| 11   | <b>Recommendation 2:</b> The team recommends that Alberta Health and Wellness report to the CASA Board on the implementation of the Syndromic Surveillance Network for the purpose of enhanced environmental health surveillance by June 2009.  | Complete.   |
| <b>Low-Rated Recommendations sent to HAHT by the Performance Measures Committee (2012)</b> |   |   |
| 12   | <b>From the Flaring and Venting Team (1998):</b> The Energy and Utilities Board, Alberta Environmental Protection, Alberta Health and Alberta Agriculture, Food and Rural Development establish processes and linkages to relate data on oil and gas wells, and                       | Complete. No longer relevant.   |

| Ref. # | Recommendations  | Status                        |
|--------|--|-------------------------------|
|        | solution gas flaring and venting with data on pollutants, environmental receptors, and human and animal health.  |                               |
| 13     | <b>From the Data Issues Group (2003):</b> Approve and implement the human health monitoring framework (tool for detecting trends and associations between air quality and health-related variables). | Complete. No longer relevant. |

### Recommendation to the Board

The team agreed by consensus to “revive” Recommendation 1 from the 2007 HAHT report. This recommendation states:

The Human and Animal Health Team recommends that the CASA Board of Directors disband the team.

### Advice to the Board

In addition to the recommendation that the HAHT be disbanded, the Team felt it warranted to provide the following advice to the Board:

- Industry, Government & NGO’s are encouraged to share information with the Board on any current & new initiatives focused on human health considerations.
- Updates on ongoing initiatives (from industry, government & NGO’s) should include a specific focus on health considerations and linkages to other initiatives, if applicable. If possible, presenters should address how their initiatives support the availability of air quality data to the public and decision makers, as well as connections to human health.
- Ensure that ecological health be considered in the preparation of terms of references for any new project teams.

## Appendix A: Timeline of Reports

| <b>Year</b> | <b>Report Title</b>   | <b>Author</b>               |
|-------------|---|-----------------------------|
| 1997        | Executive Framework for a Human Health Monitoring System              | Human Health Resource Group |
| 1998        | Human Health Project Team Final Report to the CASA Board of Directors | Human Health Project Team   |
| 1999        | Human Health Monitoring Framework Implementation Plan                 | Human Health                |
| 2003        | Animal Health Project Team Final Report and Recommendations           | Animal Health               |
| 2007        | Human and Animal Health Team Final Report to the CASA Board           | Human and Animal Health     |
| 2013        | Human and Animal Health Team 2013 Final Report                        | Human and Animal Health     |



## Appendix B: Assessment of Recommendations

| Ref. #  | Recommendation   | Status   |
|---|--|--|
| <b>Human Health Project Team – Human Health Monitoring Framework (May 1999)</b> |  |  |
| 1   | <p><b>Ongoing Activity:</b> AHW to establish a system to manage and monitor the established data base with its six components on an ongoing basis as described in the CHHMS. The data base is reviewed on an ongoing basis to provide an early warning of health effects due to emissions, or links between emissions and human health symptoms or effects, and determine the health status of the population. This will require the cooperation of AENV, RHAs and CASA.</p> | <p>Not applicable.</p> <p>Please see the inventory developed by the HAHT for a comprehensive list of inputs. Some examples include:</p> <ul style="list-style-type: none"> <li>• Alberta Real Time Syndromic Surveillance Network (ARTSSN) by Alberta Health</li> <li>• Interactive Health Data Application by Alberta Health</li> <li>• Air Quality Health Index and advisory system by Alberta Health and Environment and Sustainable Resource Development.</li> </ul> |
| 2   | <p><b>Issues/Actions Identification:</b> AHW to establish a formal process to review human health issues identified through Ongoing Activity under 23 above as described in the CHHMS. A scientific advisory committee (SAC) will be needed to provide scientific oversight on this and subsequent steps.</p>  | <p>Not applicable.</p> <ul style="list-style-type: none"> <li>• Various ministries and agencies use scientific advisory committees or similar style groups/advice when reviewing data or developing policy and projects from the on-going activities or when investigating into specific concerns,</li> <li>• This includes Joint Oil Sands Monitoring, AEMRA and Land use Planning, and Alberta Energy Regulator Proceedings.</li> </ul>                                |
| 3   | <p><b>Investigation:</b> AHW, with the assistance of AAENV, EUB and RHAs to undertake Investigations identified in 24 above, as described in the CHHMS. Oversight to be provided by SAC.</p>   | <p>Not applicable.</p> <ul style="list-style-type: none"> <li>• This is routine business and occurs regularly. Examples include responding the oil and gas concerns under the Petroleum Industry Incident Response Plan, Alberta Energy Regulator Proceedings and Community Exposure Health Effects Assessment Programs.</li> <li>• When investigating any incident the use of a scientific advisory committees or similar style advice is done</li> </ul>               |

| Ref. # | Recommendation   | Status  |
|--------|--|---|
|        |  | <p>dependent on the needs of the situation and at the discretion of federal, provincial, and/or municipal governments and involved agencies.</p> <ul style="list-style-type: none"> <li>GoA and its agencies routinely engage with the necessary stakeholders when conducting investigations (e.g. municipalities, watersheds, airsheds). Investigations could be triggered by an incident or by general complaints.</li> </ul> |
| 4      | <p><b>Multi-stakeholder Management:</b> AHW in partnership with CASA to establish a multi-stakeholder management group that will function as an Operations Steering Committee as described in the CHHMS. This is distinct from the data management required to operate the system.</p> | <p>Not applicable.</p> <ul style="list-style-type: none"> <li>Larger government initiatives as those described previously, use a variety of multi-stakeholder management groups to implement or inform part of the work.</li> <li>CASA specific initiatives include odour management, electricity and non-point sources which all have linkages back to larger government initiatives or strategies.</li> </ul>                 |
| 5      | <p><b>Feedback:</b> New information will continuously feedback into on-going activity. AHW should coordinate feedback as part of the CHHMS.</p>  | <p>Not applicable.</p> <ul style="list-style-type: none"> <li>With enhanced collaboration and multi-ministry and agency initiatives, a feedback loop is created to incorporate new information as it becomes available from on-going activities.</li> </ul>   |
|        | <p>Animal Health Project Team – Final Report and Recommendations (March 2003)</p>  |   |
| 6      | <p><b>Recommendation 2</b><br/>The AHPT recommends that the proposed complaints/response line, which is part of the approved Human Health Monitoring System, be expanded to enable documentation of and response to animal health complaints related to air pollution.</p>             | <p>Incomplete. Forward to the Board to determine if further work is required.</p> <p>The team feels that they can not make a determination about this recommendation as current team membership includes only one animal health representative, Alberta Agriculture and Rural Development. Since the full range of animal health</p>  |

| Ref. # | Recommendation   | Status  |
|--------|--|---|
|        |  | <p>interests are not represented the team can not make a decision about this recommendation.</p> <p>This recommendation was developed on basis that the Comprehensive Human Health Monitoring System (CHHMS) would be implemented. The CHHMS has not been implemented as originally imagined, making it difficult to integrate animal health into the system. However, the team has concerns that deeming this recommendation “not applicable” could result in animal health concerns being overlooked in the future.</p> |
|        | Human and Animal Health Project Team – Final Report to CASA Board (August 2007)  |   |
| 7      | <p><b>Recommendation 1 (consensus)</b><br/>The Human and Animal Health Team recommends that the CASA Board of Directors disband the team.</p>  | The team advises that the Board “revive” and accept this recommendation and disband the team.   |
| 8      | <p><b>Recommendation 2 (non-consensus)</b><br/>Alberta Health and Wellness, working with Alberta Energy and Utilities Board, Alberta Environment and the Regional Health Authorities implement the Environmental Health Hotline of the Comprehensive Human Health Monitoring System.</p> | <p>Not applicable.</p> <p>At the March 2008 Board meeting, there was consensus to remove this recommendation.</p>   |
| 9      | <p><b>Recommendation 3 (non-consensus)</b><br/>Alberta Health and Wellness, working with other regulators, non-governmental organizations and industry, establish a multi-stakeholder advisory committee to the Comprehensive Human Health Monitoring System.</p>                        | <p>Not applicable.</p> <ul style="list-style-type: none"> <li>• Larger government initiatives as those described above, use a variety of multi-stakeholder management groups to implement or inform part of the work.</li> <li>• CASA specific initiatives include odour management, electricity and non-point sources which all have linkages back to larger government initiatives or strategies.</li> </ul>  |
|        | CASA Board Meeting (March 2008)  |   |

| Ref. # | Recommendation   | Status   |
|--------|--|--|
| 10     | <p><b>Recommendation 1</b></p> <p>The Syndromic Surveillance Network seen as a means of implementing the Comprehensive Human Health Monitoring System. Therefore, the team withdraws the Non-Consensus Recommendation 1 on the 1-800 number and the Consensus Recommendation 1 to disband the team.</p>  | <p>Complete.</p> <p>Alberta Health implemented the Alberta Real Time Syndromic Surveillance Network (ARTSSN).</p>  |
| 11     | <p><b>Recommendation 2</b></p> <p>The team recommends that Alberta Health and Wellness report to the CASA Board on the implementation of the Syndromic Surveillance Network for the purpose of enhanced environmental health surveillance by June 2009.</p>  | <p>Complete.</p> <p>In December 2011, Alberta Health presented to the Board on the implementation of ARTSSN and the Board decided that ARTSSN did not fulfill the intent of CHHMS as was originally expected.</p>  |
|        | <p>Low-Rated Recommendations sent to HAHT by the Performance Measures Committee (2012)</p>   |  |
| 12     | <p><b>From the Flaring and Venting Team (1998)</b></p> <p>The Energy and Utilities Board, Alberta Environmental Protection, Alberta Health and Alberta Agriculture, Food and Rural Development establish processes and linkages to relate data on oil and gas wells, and solution gas flaring and venting with data on pollutants, environmental receptors, and human and animal health.</p> | <p>Complete.</p> <p>Since the recommendation was made 15 years ago, it seems redundant, as the context and the tools available have significantly changed. However, the processes and linkages described in the recommendation are realized through larger government driven initiatives or strategies like the Integrated Resource Management System (IRMS), Alberta Environmental Monitoring Reporting Agency (AEMRA), and the Open Data Portal. In addition, the Interactive Health App is able to load data by disease and geographic location. This concept of demonstrating linkages between exposure and health effects is a continually evolving initiative and is being integrated into all streams of policy development, implementation, evaluation and management.</p> |

| Ref. # | Recommendation  | Status   |
|--------|---|--|
|        |   | The HAHT recognizes that, as they did under #6, they do not have the appropriate representation to make a determination about animal health. The team advises that project managers consider how to incorporate concerns about animal health into existing and future teams.   |
| 13     | <p><b>From the Data Issues Group (2003)</b><br/>           Approve and implement the human health monitoring framework (tool for detecting trends and associations between air quality and health-related variables).</p> | <p>Complete.</p> <p>Since the recommendation was made 10 years ago, it seems redundant, as the context and the tools available have significantly changed. However, the tools for detecting trends and associations described in the recommendation are realized through larger government driven initiatives or strategies like the Integrated Resource Management System (IRMS), Alberta Environmental Monitoring Reporting Agency (AEMRA), and the Open Data Portal. This concept of demonstrating trends and associations between air quality and health-related variables is a continually evolving initiative and is being integrated into all streams of policy development, implementation, evaluation and management.</p> |