## **Trail Area Health & Environment Committee**

# **MINUTES**

Meeting: Tuesday, January 14, 2014 City of Trail – Committee Room #2 7:00 pm

#### **Committee Members in Attendance:**

Dieter Bogs, Chair, City of Trail Gord DeRosa, Alternate Chair, City of Trail Sonia Tavares, Community Rep. Mark Tinholt, Teck Trail Operations Craig Adams, Community Rep. Brandi Thirsk, Community Rep. Linda Worley, Director, RDKB Area B Jacquie Johnson, Interior Health John Crozier, Councillor, Village of Warfield Graham Kenyon, Community Rep. Jeannine Stefani, Interior Health Brad McCandlish, BC Ministry of Environment

#### Others in Attendance: Bruce Enns, SNC-Lavalin Inc

Pete Golden, Community Member Bert Crocket, Village of Warfield Ruth Beck, Program Manager Liz Anderson, Program Administrator Richard Deane, Teck Trail Operations Cindy Hall, SNC-Lavalin Inc Dawn Tomlin, Interior Health Dr. Andrew Larder, Interior Health

#### **MEETING MINUTES: November 19, 2013**

Comment; Graham Kenyon: The Training Manual presented at the November meeting is an excellent booklet; it is well written and understandable.

**MOTION** to adopt meeting minutes from November 19, 2013; John Crozier moved; Mark Tinholt seconded. Motion carried.

#### **REPORTS & RECOMMENDATIONS:**

#### Family Health:

**Presentation**: **IH Blood lead level report – Jeannine Stefani, Mark Tinholt;** slideshow presented Jeannine Stefani and Mark Tinholt gave a PowerPoint presentation on the results of the Fall 2013 Blood Lead Clinics. Jeannine noted the issues from the preliminary report (presented in November) about the anomalous capillary samples and how they affected the conclusions and comparisons that could be drawn from the data. After reviewing the preliminary results, Interior Health (IH) decided to analyze only venous samples. This allows for long term comparison while retaining sufficient statistical power. In addition, IH is making recommendations to improve the capillary sampling methodology, as well as how to return to taking primarily venous puncture samples.

Jeannine presented the venous blood lead results of the Fall 2013 Blood Lead Clinics and provided the venous only results from previous years for comparison.

A discussion took place about whether the results have plateaued over the last ten years. Mark pointed out that 2001 and 2005 were years when the smelter was shut down, noting that those years would skew the graph. If you eliminate those years, a more obvious trend of gradual improvement emerges. In addition, there is a shift toward the left on the graph that plots the population distribution of blood lead levels.

There was a discussion about inclusion of Area 1 in future testing. Dieter explained that the matter will be discussed in a future meeting with community representatives from Area 1. It was noted that Bert Crockett and Linda Worley were welcome to ask questions during the meeting as Dr. Larder was on the phone and able to take questions.

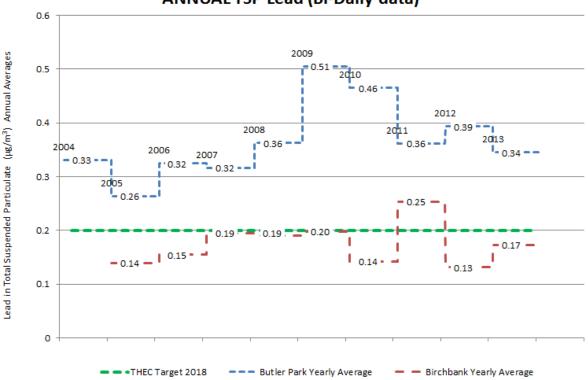
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Richard Deane asked if it is possible to extract comparable age data from the US NHANES sample to allow for a more accurate comparison. Mark replied that you could extract the data from 1 to 3 year olds, but the US data does not include children younger than 12 months.

Mark continued the presentation with an update on the air lead levels. Fourth quarter air lead levels were much lower than the third quarter. Mark noted that it appears the Healthy Family Healthy Home visits could be making a positive impact on blood lead levels while acknowledging that air lead is the most important factor and that Teck is committed to reducing it. Mark was asked for information on the annual averages of air lead.

**ACTION**: Mark to provide a graph showing Annual Total Suspended Particulate Lead graph to be included with the minutes.



ANNUAL TSP Lead (Bi-Daily data)

Richard Deane added that Teck Trail Operations is focused on annual air lead reduction with specific attention on June-Sept air lead reduction. Dieter agreed with Teck's priority. Richard commented that he was interested in the BLL trending downward in Fall 2013 despite a higher air lead and wondered if that is an anomaly. Dieter added that he would like an update on fugitive dust reduction program in the near future. Mark replied that a fugitive dust reduction program update is due at the next THEC meeting on March 4.

Jeannine summarized the concluding messages. Air quality is paramount and we will continue to see improvements through Teck's Fugitive Dust Reduction Program. Capillary samples show significantly higher lead levels likely due to lead contamination and IH has decided to present venous only results. IH has investigated and has recommendations as to more stringent sampling methodology (to be presented by Dawn Tomlin).

Gord DeRosa initiated a discussion on whether forced air furnaces might be a source of lead exposure in the home. Although the Lead Task Force did find lower lead levels in the home in winter months, it was agreed that this should be investigated further.

**ACTION**: Mark to conduct follow-up on this issue, reviewing information we might have on air quality and dust levels in homes in the winter and present it for discussion at the next Air Quality Technical Working Group meeting. Examine if this is an opportunity to reduce dust exposure to children.

Comments made in regards to this action are noted to support the follow-up: Do we need a pilot project? Is this a Home & Garden opportunity? Should we add "forced air furnace" to the Healthy Homes

checklist? What about humidity issues? What has already been studied? The Manager of Community Futures (Don Freschi) is a good contact re: his experience with industrial-grade air filtration. John Crozier was curious about the 5.2 mg/dL result in Area 1 and wondered which neighbourhood it came from. Jeannine explained that it is private information and that specifics can't be shared.

### Presentation: IH Blood Lead Level Testing Methodology Review – Dawn Tomlin;

After a thorough review of the sample collection methodology at the blood lead level clinics, Interior Health doesn't have an answer as to why there were higher rates of capillary samples in recent years; there were too many variables. However, IH has taken this opportunity to reflect on its clinic practice and make recommendations for improvement. It has conducted an investigation and identified a number of changes in methodology that will be implemented beginning with the next round of blood lead clinics to take place at the end of February 2014.

Dawn noted some of the factors uncovered in the course of the investigation:

- the blood lead clinics pre-date current quality improvement systems such as program charters that standardize testing methodology;
- there have been recent transitions regarding the BLL clinics; transitions in location, managers, leaders, and lab staff;
- there have been differences in the skill level of individuals taking the blood samples;
- knowledge transfer has not always been sufficient for transitions from manager to manager, Team lead to Team lead, or lab personnel to lab personnel;
- there have been inconsistencies in the structure of the clinics, including the way children were held and positioned during the blood draw;

It was noted during a site visit that the clinic room size was adequate; routine housekeeping took place as appropriate; there was appropriate hand washing and equipment, appropriate furniture for testing, good lighting and appropriate phlebotomy equipment.

It was noted that "finger poke" sampling is rarely a "solid draw". Due to the nature of the capillary "finger poke" sampling method, air is often introduced into the sample (thus increasing the possibility of sample contamination). There is no exposure to air during venous sample collection. Therefore, it is preferred to take samples by venous puncture.

Interior Health presented it recommendations to optimize the likelihood of a successful venous puncture and where capillary sampling is necessary, to obtain a sample free of contaminates. This included: • IH will purchase newer equipment and lead-free supplies:

- a three-sided phlebotomy chair that will provide the best placement for the technician to optimize sample collection;
- an infant draw table with high sides, providing proper positioning for the technician and security for infants;
- o improving the temperature of the hot water provided to the BLL clinic;
- o dust-free containers with secure, lock-tight tops for supplies;
- lead-free clinic supplies such as alcohol wipes and gauze (Note subsequent to meeting: IH has been unable to source alcohol wipes and gauze that can be guaranteed to be lead-free); and
- use of white cotton towels (cleaned by Interior Health laundry facilities) instead of paper towels which cannot be guaranteed to be lead-free.
- IH will also take measures to book more time between patients. This will allow the technician more time for positioning and properly holding the child during sample collection with the intention of optimizing the chance for a successful blood draw. IH will phone the day before each BLL clinic to remind parents/guardians of their appointment.
- IH has also committed to changes in training for the phlebotomists. As current staffing requirements can't assure that the same laboratory technician can do the draws from one day to the next, IH is implementing a Super-User Model whereby one 'Super-User' would be responsible for overseeing the lab staff, providing guidelines and monitoring practice, and ensuring consistent performance. The Super User will receive training from the BC Children's Hospital. IH will also provide training via a US Centre for Disease Control training video.
- Dawn spoke about further ways to reduce the possibility of lead contamination: prior to each clinic, there will be a thorough "terminal" cleaning of the room, including walls, windows, ceilings, all decorations (posters, pictures, etc.). There will also be improved storage control of samples, installing a temperature controlled fridge, continuing to deliver samples to BC Children's Hospital lab within one week of collection (same as current practice), and ensuring any follow up testing is completed by the same lab (BC Children's Hospital).

For Interior Health, the "gold standard" is to move to venous samples as the primary method of blood sample collection. Where capillary sampling is necessary, phlebotomy technicians will take care not to scrape the skin or allow blood to drip down the skin. Infants aged 6 months to a year will receive a heel capillary "poke" because there's better blood flow, easier cleaning, and less air likely to be introduced because there's less likelihood of the heel touching something between the "poke" and the draw. Dawn continued her presentation with a comment that the quality of the review was excellent. There were two technicians conducting the review, they were very thorough. The supporting documents provided were impressive; product manufacturers were consulted and various centers for disease control were contacted.

IH outlined the desired outcomes from the review:

- to return to a standard where the majority of samples are taken by venous puncture;
- 10% or less of samples should be taken by capillary "poke"; and
- to implement all new procedures and recommendations by December 2014.

The next clinic will take place during the last week of February 2014, exact dates to be set in the near future.

Clarification was sought over whether IH will continue to segregate the results for capillary samples from venous in the future. Dr. Larder replied that yes, the results would be looked at separately. He had explored this question with the lab where the blood specimens are analyzed and was told that if you collect capillary specimens under optimal conditions, the results will be the same as the venous collected at the same time. Past studies have tested children by both methods and compared the results, so for Trail BLL clinics going forward, you can avoid having to expose children to two punctures and use statistics to determine that the results are the same. Dr. Larder stressed that the key concern for IH and THEC is not to miss children that require intervention. The mis-measurement discovered during the Fall clinic overestimated the lead in the blood and, as such, no children were missed who should have had an intervention. Dr. Larder continued by making clear that he doesn't have any doubts about the results being presented; they show that what IH and THEC are doing has value and that we're seeing the trends that we want to see. The most rigorous measures, venous samples, show that there is no increase in lead in Trail children's blood.

A discussion took place about making sure that THEC stays abreast of the details of THE Program so that we maintain quality of all aspects of our work. Concern was expressed about whether we've raised doubts in the community, but it was noted that the BLL results speak for themselves, showing that we are doing well. Dawn Tomlin expressed confidence in the transparency of Interior Health's methods. Both Jeannine and Dr. Larder reiterated the point that children are getting the interventions they need; no one was missed.

A question was raised and discussion took place about any forced air in the clinic, noting that perhaps it should be turned off during BLL clinics or provided with an industrial-grade filter. Jeannine noted that it is electric and that the window is kept closed. IH will double-check the heating.

Discussion was had regarding the press release that would be sent out.

Graham raised the question of whether Area 1 would continue to participate in future BLL clinics. Jeannine made the point that any child up to age five can come and get tested.

**ACTION**: Ruth Beck to set up a separate meeting with representatives of Area 1 and THEC to discuss Area 1 future involvement in THEP. (*Note: after the meeting it was determined that a meeting wouldn't be necessary, given Dr. Larder's comment below*).

Linda Worley asked Dr. Larder his opinion regarding Area 1 residents; should Area 1 have follow up BLL testing in the future? Dr. Larder replied that he thought it was a good idea to continue testing Area 1 children; he suggested that testing every 5 years would be of value.

#### 2013 Study on Inflammatory Bowel Disease in Trail – Dr. Larder;

Dr. Larder provided a brief summary of the analysis of the occurrence of Inflammatory Bowel Disease (IBD) in Trail performed by Dr. Tom Kosatsky and his staff. The take home message is that Dr. Kosatsky's study provides no evidence that we are facing a high rate of occurrence of IBD in Trail. The entire population of Trail was compared to other communities and it was found that utilization rates of health services for IBD are higher in Trail. However, utilization of health services were higher overall in Trail, and when you correct for that, the difference between Trail and other communities (with respect to IBD) is not significantly different and appears to be decreasing. It is recommended that Dr. Kosatsky et al. should repeat the analysis with most recent years' data to confirm the results. Dieter added that the Trail Council is going to delegate the IBD issue to THEC for continued monitoring. Dr. Larder was

advised that the Committee accepts the recommendation of Dr. Kosatsky to do another analysis of 2 years of data and to review the results as a Committee and take further action as needed. In December, when the study was presented to Trail City Council, Dr. Larder and Dr. Kosatsky participated in a suppertime meeting with Trail doctors and pharmacists to discuss the IBD study. Their overall feedback was that the results are interesting, but they do not perceive a problem with IBD in their patients. It was noted that there are differences in physician practice; some past physicians may have had a tendency to overdiagnose IBD, in their opinion.

Mark Tinholt asked that IH will request age tables and adjust for age in the next analysis. Dr. Larder confirmed that they will.

#### Home & Garden:

#### Community Program Office update – Cindy Hall;

Cindy Hall provided a brief summary of 2013 activities and accomplishments at the THEP Community Program Office. The goal for 2014 is to visit 117 families through the Healthy Families Healthy Homes (HFHH) Program and attend more events and build community outreach and engagement. Cindy continued with a summary of the new HFHH vacuum program. Ruth requested that we start tracking of the number of HFHH families that also utilize the Home Renovation Support Program (HRSP). **ACTION**: (Program Office) to track the numbers of HFHH clients who use the HRSP. Dieter commented that the extra efforts of the HFHH program are starting to pay off.

#### **Program Planning & Operations:**

#### Program Manager's Update – Ruth Beck;

Ruth proposed that the next THEC meeting would be March 4, 2014 so that Ruth Hull (Intrinsik) can attend and we can present the 'Program Plan'.

**MOTION:** To capture the spirit of an agreement between the various agencies that comprise the Trail Area Health & Environment Program and change the name of the "Program Plan" to "Trail Area Health & Environment Program Agreement"; Mark Tinholt moved; Graham Kenyon seconded. None against; carried.

Ruth continued with an update on the 2<sup>nd</sup> Phase Lit Review and proposed that the Review Committee meet before the end of February by phone to discuss the literature review as well as the HELP researchers' upcoming visit and how to make best use of it.

Dieter requested an update on the Family Action Network (FAN).

ACTION: Ruth and Jeannine to compile an update on FAN for the next THEC meeting.

Sonia Tavares mentioned that there are community conversations on child poverty report card and EDI coming up. Ruth Beck expressed interest in THEP participation.

Jeannine Stefani noted that the previously postponed Public Health Rounds on THEP had been rescheduled. Jeannine believes they're coming up on Jan 23<sup>rd</sup> (next Thursday), from noon to 1pm, but needs to confirm that time. Dawn Tomlin brought up the possibility of using WebEx to link into the presentation, otherwise it is necessary to be at an IH site in order to connect into the presentation.

Gord DeRosa asked for a brief update on Radon kits. The kits available to anyone at the community program office and that has been featured in the past three Fall THEP newsletters. Also, there's a pilot study starting out of Nelson looking at the levels of Radon in the Kootenays and some simple solutions.

Meeting adjourned at 9:05

#### NEXT MEETING: Tuesday, March 4, 2014



# Age Groups Targeted

1991-2000: age 6-60 months
2001-2005: age 6-36 months
2006-2008: age 6-60 months
2009-2013: age 6-36 months



## Who Was Tested in 2013?

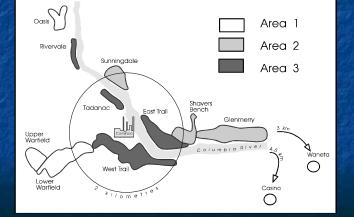
Target group:

- Children aged 6-36 months, living in City of Trail or Rivervale (Area 2/3)
- Children aged 6-36 months, living in Warfield, Casino, Oasis, Waneta (Area 1)

## Also:

- New to area, up to age 5 yrs (60 mos)
- Previous case management for follow-up

"Areas" & Neighbourhoods

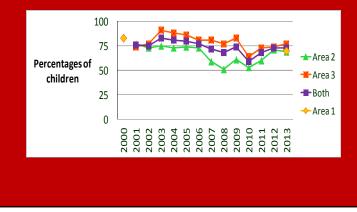




Fall 2013	
Total Participation By Areas	

AREA 1 TOTAL         60         40         67%           AREA 2 TOTAL         78         54         69%         71% (4           AREA 3 TOTAL         100         77         77%         74% (7	Participation for	articipation for 2013 (Children under 3 years)				
AREA 1 TOTAL         60         40         67%           AREA 2 TOTAL         78         54         69%         71% (4           AREA 3 TOTAL         100         77         77%         74% (7	Breakdown by	# Children	# Children	% Children		
AREA 2 TOTAL         78         54         69%         71% (4           AREA 3 TOTAL         100         77         77%         74% (7	Areas	Contacted	Participating	Participating	2012	
AREA 3 TOTAL 100 77 77% 74% (7	AREA 1 TOTAL	60	40	67%		
	AREA 2 TOTAL	78	54	69%	71% (49)	
AREA 2 & 3 178 131 74% 73% (12	AREA 3 TOTAL	100	77	77%	74% (73)	
	AREA 2 & 3	178	131	74%	73% (122	
AREA 1, 2 & 3 238 171 72%	AREA 1, 2 & 3	238	171	72%		

# Percentages for participation by area and general trend



## **Capillary Samples**

- Capillary samples are prone to skin contamination (CDC, 1997) http://www.cdc.gov/ncetv/lead/publications/1997/pdf/c2.pdf
- Capillary samples have statistically higher lead levels : 1991-2013
- There have been more capillary samples taken in recent years than in earlier years of the program
- Affects conclusions and comparisons that can be drawn from data

## Why was a capillary sample taken?

Not affected by
 Gender
 Area
 Neighbourhood
 20
 60
 60
 40
 20

## Affected by

Age (younger are more likely to have capillary)

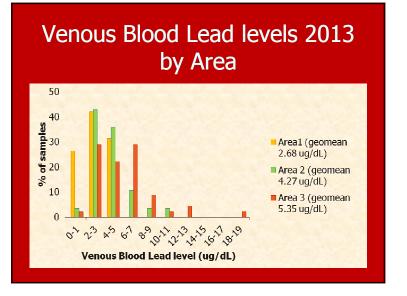
2003 200 2009 2012

year

Year (more likely to have capillary in recent years)

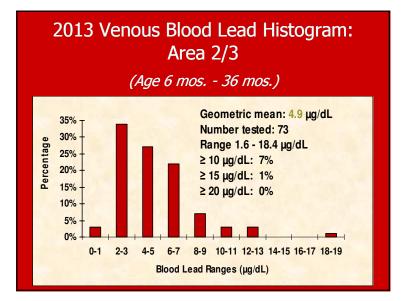
# Decision made to analyze venous samples only

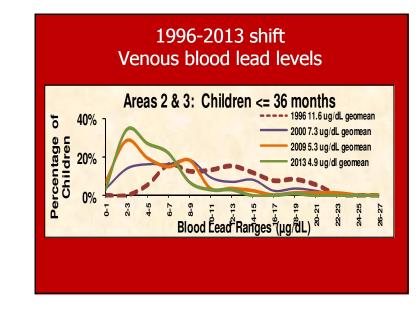
- Allows apples to be compared to apples
- Capillary samples are known for contamination, no way to completely control for contamination
- Small number of children with capillaries with high values were resampled and resulted in lower lead levels (2013 period)
- Sufficient power without capillary samples
- Moving to more stringent sampling methodology to ensure capillary samples are (more) comparable.

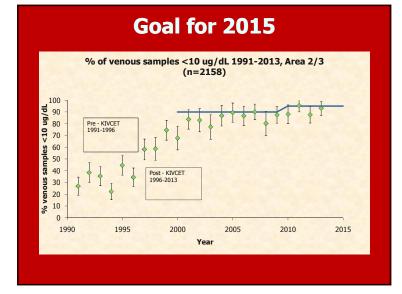


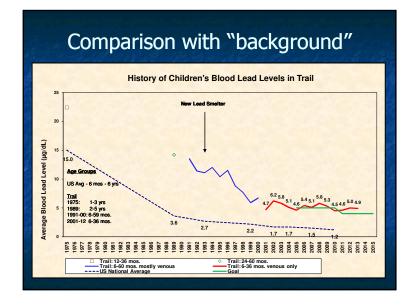
# Venous blood lead geomean by Area

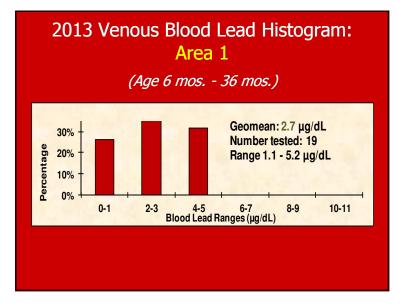


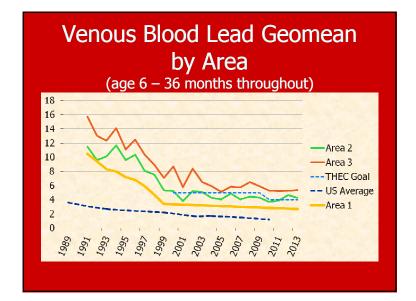


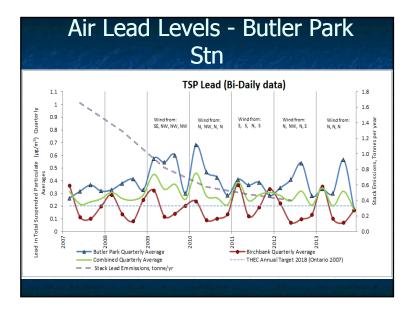




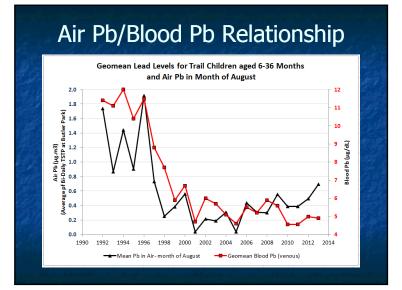








	Air L		els - Butle Stn	r Park
		2013	2012	2009
	Jul	0.54	0.56	0.66
2	Aug	0.70	0.50	0.56
	Sep	0.45	0.56	0.59
	AVERAGE	0.56	0.54	0.60
	S.		en an tea	



## August Ambients Investigation

An internal investigation was launched and factors that may have been contributing were identified and addressed. As a result of the investigation we took the following corrective actions :

- Filters were replaced at two baghouses and an air leak was repaired. A system was also installed to monitor differential pressure to provide early detection of similar issues
- Concentrate is now sprayed with water to reduce dust and a testing system has been implemented to ensure moisture levels are appropriate prior to shipping
- The seals were replaced in a process material crusher and internal operating procedures were reviewed and enhanced.

# Concluding messages

- Air quality has the biggest impact on blood lead levels. Teck's fugitive dust reduction project currently offers the greatest opportunity to reduce lead emissions even further to achieve our health and environment goals.
- Late summer 2013 conditions were again warm and dry. The three-month average for lead in air in July, August and September was about the same as last year, but August levels were higher than typical. A full investigation was undertaken to determine the cause, and corrective actions were taken both the fix the issue and to prevent re-occurrence.

## Concluding messages

- There is no known threshold below which there is no effect from lead exposure. The lower the better.
- There has been huge improvement in children's blood lead levels over the past 20 years, and Trail is at the forefront of smelter communities in terms of low lead emissions and blood lead levels.
- There is some expected variation from year to year due to the small number tested, variation in weather, air quality etc. Overall the trend has reached a plateau over the last several years.

## Concluding messages

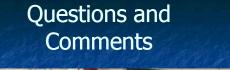
- 2013 results show a significantly higher average lead level for the children tested by the capillary method and this testing runs a greater risk for contamination of the blood sample. We have chosen to present the venous only results to ensure that comparisons can be made across the years.
- Interior Health is investigating this issue and will present its recommendations to the THEC January 14, 2014.
- Trail Area Health and Environment Program supports will not be impacted by these questions

## Concluding messages

- When looking at only the venous blood results from the past few years we are continuing to move toward our goal of 95% children with BLL <10ug/dL</p>
- Future recommendations on area 1 program support and continued testing to be determined by the THEC in 2014

## Concluding messages

- To reach our 2015 goal we require continued efforts from the internationally recognized model partnership that is the THEC
- For information regarding lead, it's effects, and the robust community supports available please visit www.THEP.ca







## Inflammatory Bowel Disease among Trail residents: patterns in administrative health data

## Background

Inflammatory bowel disease (IBD) is a group of chronic inflammatory conditions of the large and small intestines. The major types of IBD are Crohn's disease and ulcerative colitis. IBD can cause serious illness that is treated with oral medications, therapeutic enemas, and sometimes surgery. It should be noted that any relationship between IBD and environmental pollutants is entirely speculative at this time.

In 1994, there were reports of concerns about health problems attributed to environmental pollution in Northport, Washington, a community located across the border to the south of Trail. These related to potential exposure to environmental pollution discharged into the Columbia River by the zinc/lead smelter in Trail. Concerns from Northport residents prompted an investigation of IBD and chronic renal disease by the BC Ministry of Health. That investigation found that hospitalization rates for both conditions among Trail residents were no higher than those for residents of the entire Central Kootenay Health Unit.

In August 2012, a summary of a survey performed by researchers from Massachusetts General Hospital (MGH) was published, which identified high rates of occurrence of IBD in Northport. The estimated prevalence of IBD in Northport was far higher than that reported elsewhere in the United States. The researchers surmised that these findings were related to pollutants released into the environment by the lead/zinc smelter located in Trail.

As the researchers from MGH hypothesized that activities of the smelter in Trail was associated with the high prevalence of IBD in Northport, BC public health authorities deemed it prudent to assess the occurrence of IBD in Trail as well. The results of the 2012 IBD survey in Northport, WA also prompted the Mayor of Trail to request that the analysis performed in 1994 be updated. Dr. Tom Kosatsky (Medical Director – Environmental Health Services at the BC Centre for Disease Control) and his staff had already embarked on a preliminary analysis of IBD in Trail, which was completed this summer.

### Findings

Data from administrative data sets (Provincial Discharge Abstract Database, Medical Services Plan Payment Information File, and PharmaNet) was used to assess trends over the recent past (2007-2011) in IBD-related hospitalizations, physician visits and dispensation of prescription medication. Data for Trail was compared to that for Nelson, Williams Lake, IH, or the Province.

*Physician MSP claims*: The rate of physician IBD-related claims for Trail residents decreased between 2007 and 2011, but the five-year average was higher than all other locations assessed. However, total physician MSP claims were highest in Trail, and it is unknown how higher rates of total physician MSP claims impact IBD-related physician claim rates.

*Hospitalization rates*: The IBD-related hospitalization rate for Trail residents declined between 2007 and 2011, but was higher than that in the other locations examined for all years except 2011. All-cause hospitalization rates in Trail were also higher than all other locations, and it is unknown how higher rates of all cause hospitalization affect hospitalization rates for IBD.

*Prescription Rates*: The prescription rate for IBD-related medications was higher in Trail area residents when compared to other communities. However, differences with comparison communities diminished over the study period.

#### Conclusion

Differences in physician practices between Trail and the comparison communities, as well as the older population in Trail relative to other areas included in the study, may explain the differences in health care services utilization seen. The BCCDC has offered to repeat these analyses when data becomes available for 2012 and 2013.

If the observed decrease in health care service utilization for IBD continues, or if rates remain stable, no further action will be warranted. If higher rates of health care service utilization for IBD occur in data that are more recent for residents of Trail, a more comprehensive detailed study of rates of IBD in Trail may be required.

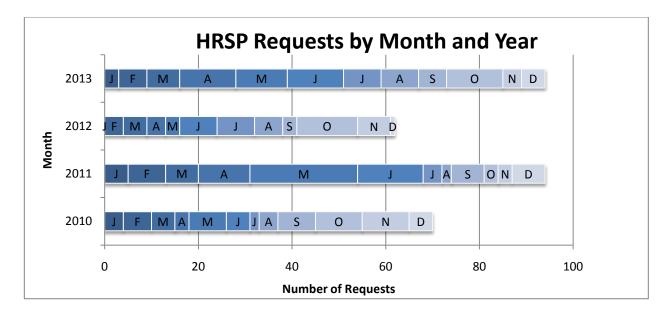
Dr Andrew Larder December 12, 2013

## Trail Area Health & Environment Committee Home & Garden Program Update January 14th, 2014

## 2013 Summary

## 1. Healthy Homes Program

- a. Visits:
  - i. 2013: 145 families contacted. 35 declined (or no contact after 3 calls) 110 families visited including 10 since last THEC meeting.
  - ii. 2014: Goal is to offer visits to all of the families on our list. Currently we have 106 families on our list and we meet more at outreach events throughout the year.
- b. Supports provided to families:
  - i. 109 Dust-buster kits
  - ii. 78 Yard-garden kits
  - iii. 32 Sandboxes
  - iv. Vacuum replacements
    - 1. 70 families are eligible and have been contacted
    - 2. 15 delivered and 33 on order for February
  - v. Paint screening at 15 properties
- 2. Soil Programs same as reported in November 2013
  - a. Yard soil assessment was completed at 96 properties
    - i. 80 yards were part of the Healthy Homes Program
    - ii. 16 yards were part of general community assessment
    - iii. 60 Vegetable garden assessments completed (23 independent of yards)
  - b. Remediation and Yard Improvement Work
    - i. Work completed on 38 properties
      - 1. 22 properties had yard improvement work done
      - 2. Yard remediation at 7 properties (soil > 5,000 ppm lead)
        - a. 5 full yards
        - b. 2 partial yards
      - 3. Garden Remediation completed at 9 properties (soil > 1,000 ppm lead)
- 3. Home Renovation Support and Radon kits
  - a. Total HRSP requests in 2013 was 94 same as our previous best in 2011!
  - b. Radon kits 24 kits given out in 2013



- 4. Community Outreach and Engagement
  - a. Community Program Office Public Contact Summary
    - i. November: 20 walk-ins and 7 phone calls
    - ii. December: 15 walk-ins and 14 phone calls
  - b. Building Beautiful Babies met with the group on Dec 5, 2013 and connected with 2 new families.
  - c. 2014 Outreach to Date
    - i. Communities in Bloom met with the group on January 9, 2014 to discuss plans for an Edible Garden project.