

**Libby Montana’s Public Health Emergency, Asbestos Health Screening  
Center for Asbestos Related Disease  
Grant Number 6 NU61TS000295-01-01  
Year 1, Quarter 2  
(December 1, 2019 through February 29, 2020)**

**MAJOR FINDINGS**

The goal of the funding opportunity is “early detection of certain medical conditions related to environmental health hazards.” The Center for Asbestos Related Disease (CARD) screening program has been successful in early detection of asbestos related disease (ARD) and lung cancer resulting from the Libby asbestos exposure public health emergency. Significant outreach and education locally, regionally, and nationally are also being conducted to support the screening programs. These efforts contribute significantly to the success of the grant. The clinical data in this report includes both the ARD and lung cancer screening (LCS) programs. Outcomes reported in the tables below are for the second quarter of year 1. Cumulative totals also include, if collected, screening activities since 7/1/2011, the beginning of the first four-year screening grant.

Table 1 reports the number of ARD screenings, the number of patients who needed CT evaluations to determine diagnostic status, the number of patients diagnosed with ARD, and the number of individuals who were eligible for ARD Medicare. Individuals can be eligible for Medicare through the Environmental Health Hazard designation criteria, but not be clinically diagnosed with ARD. This situation occurs in three different ways: (1) A positive chest x-ray B-read. (2) A positive CT read by an outside radiologist. (3) A documented diagnosis of an asbestos related cancer (mesothelioma, lung, colon, rectum, larynx, stomach, esophagus, pharynx and ovarian). It is noteworthy that most screening participants did not have occupational exposure to Libby asbestos, and many did not even have household exposure, but environmental exposure only.

<b>TABLE 1: SCREENING OUTCOMES</b>				
	<b>Before Current Grant</b>	<b>Yr. 1 Q2</b>	<b>12/1/19</b>	
<b>Screening Outcomes</b>	<b>7/1/11-8/31/19</b>	<b>2/29/20</b>	<b>Yr. 1 total to date</b>	<b>Cumulative totals</b>
# ARD screenings	6,563	161	347	6,563
# CT diagnostic appointments	4,229	86	174	4,229
# ARD diagnosed	2,552	39	75	2,552
# ARD Medicare eligible	2,880	43	85	2,880
% diagnosed w/ environmental exposure only	not collected	74%	74%	not collected

**GOALS/OBJECTIVES**

**Goal 1: Provide medical screening in the Libby area and across the nation**

**Asbestos Related Disease screening in Libby and across the nation:**

Table 2 details types of screening appointments. It is noteworthy that even after years of asbestos health screening programs in the Libby, Montana; during year one to date, 37% of screening patients were participating for the first time. About half of screening participants live

outside of Lincoln County and have for the past eight years of screenings as well. It is estimated that over 80,000 people could have spent significant time in the Libby, Montana area while the mine was in full operation so there is likely a large number of potential screening patients that have not yet been through the program. For those who qualify, asbestos health screening is offered either in Libby at the CARD Clinic or at a distance for those who cannot travel to Libby. Successful completion of long distance screening (LDS) occurs when the participant completes all screening related activities (questionnaires, phone interview, spirometry, chest x-ray, and CARD medical provider visit by phone, plus a CT and second medical provider visit by phone if appropriate). The number of appointments reported exceeds the number of patients because many screenings include two appointments; an initial appointment and then a CT follow-up appointment. Each participant is asked if they would like to share their health information with ATSDR's Tremolite Asbestos Registry (TAR), and with their primary care provider (PCP). Most say yes to both consents. To better understand the positive impacts of early diagnosis and treatment, we have modified our data collection for this grant to record the number of past screeners who have been diagnosed with ARD and follow-up at CARD.

Appointment Type	Before Current Grant 7/1/11-8/31/19	Yr. 1 Q2 2/29/20	12/1/19	Yr. 1 total to date	Cumulative totals
# screenings	6,563	161		347	6,910
# new screening patients	4,806	71		130	4,936
# rescreenings	1,757	99		226	1,983
# Lincoln County, MT residents	3,366	89		175	3,541
# LDS eligible screenings done in clinic	2,679	26		90	2,769
# of LDS patients	519	48		84	603
# in clinic appointments (includes both visits)	9,445	168		382	9,827
#LDS appointments	1,347	79		139	1,486
Consented for TAR registry	5,015	125		274	5,289
Consented to notify PCP of results	not collected	125		277	not collected
# past screeners diagnosed with ARD seen for f/u	not collected	271		528	not collected

Table 3 details demographic data related to age and gender of the screening population.

Demographics	Before Current Grant 7/1/11-8/31/19	Yr. 1 Q2 2/29/20	12/1/19	Yr. 1 total to date	Cumulative totals
# screenings	6,563	161		347	6,910
# females	3,448	96		209	3,657
# males	3,115	65		138	3,253
# under age 35	351	7		13	364
# between 35-49	1,289	34		66	1,355
# between 50-64	3,279	80		166	3,445
# age 65+	1,644	40		102	1,746

Table 4 summarizes important clinical findings including the number of participants who report respiratory symptoms that may be asbestos related, the number with abnormal spirometry breathing tests, and for this grant, we've added the number with abnormal body mass index (BMI). This information is used in clinical decision making to determine whether a CT scan should be performed. Occasionally, participants will not have a chest x-ray but request screening anyway. This is usually because only a CT is medically warranted, the individual is

too young, he/she refused the chest x-ray, or she is concerned about possible pregnancy. The number of abnormalities identified on CXR is low because CARD providers do not typically diagnose ARD from x-rays. If ARD is suspected, based on ATS criteria, a CT scan is ordered. CT scans are considered the gold standard for ARD imaging.

TABLE 4: CARD CLINICAL FINDINGS ASSOCIATED WITH ASBESTOS RELATED DISEASE				
CARD Clinical Findings	Before Current Grant 7/1/11-8/31/19	Yr. 1 Q2 2/29/20	12/1/19 Yr. 1 total to date	Cumulative totals
# screenings	6,563	161	347	6,910
# symptomatic	4,408	108	214	4,622
# abnormal spirometry	1,699	48	94	1,793
# abnormal BMI ( $\geq 30$ )	not collected	58	139	not collected
# CXRs completed	6,361	160	342	6,703
# no CXR done	202	1	5	207
# abnormal CXR (CARD)	394	5	12	406
pleural only	356	4	11	367
interstitial only	19	0	0	19
both	19	1	1	20
# CTs completed	4,229	86	174	4,403
# abnormal CT (CARD)	2,525	39	75	2,600
pleural only	1,988	38	65	2,053
interstitial only	12	0	1	13
both	525	1	9	534

Table 5 describes significant findings of ARD screening. These findings include focal opacities, masses, and confirmed cancers. In addition, data is now being collected to track incidental findings, specialist referrals, and depression follow-ups. Confirmed cancers that are possibly asbestos related include lung, colon, rectum, larynx, stomach, esophagus, pharynx and ovary. These are based on Medicare's Environmental Health Hazards checklist. Only cancers for which CARD has medical record confirmation are reported. Patients with significant findings are referred for appropriate follow-up, but not all patients share the results of these follow-ups with CARD. Focal opacities are common in screening studies, and their prevalence is well documented in literature. Only a small percentage of them turn out to be cancers, however they are all tracked to be followed in future screenings. They are also tracked because individuals between the ages of 55 and 84 with at least 20 pack years of smoking history and documented exposure to asbestos with a nodule greater than 6mm (this was increased from 4mm previously per updated Fleischner Society Guidelines released in 218) can enroll in the lung cancer screening program. Lung masses reported in this table do not include those identified through the lung cancer screening program. One part of the questionnaires completed by screening patients includes a depression assessment. If participants' scores are abnormal, they are referred to the Case Manager for follow-up assessment and possible referral to other community support services.

Significant Findings	Before Current Grant 7/1/11-8/31/19	Yr. 1 Q2 12/1/19- 2/29/20	Yr. 1 total to date	Cumulative totals
# lung masses	57	2	4	61
# thyroid masses	22	0	0	22
# kidney masses	23	0	0	23
# breast masses	19	0	0	19
# other masses	52	0	0	52
Total # masses identified	173	2	4	177
# focal opacities	1,123	40	91	1214
# cancers verified possibly asbestos related	not collected	4	12	not collected
# incidental findings	not collected	8	21	not collected
# specialist referrals	not collected	1	2	not collected
# depression follow-ups	not collected	41	106	106

### Fecal Occult Blood Testing:

Fecal occult blood testing (FOBT) is offered to all screening participants between the ages of 50-75 since asbestos exposure can increase risk of developing colon cancer. If a participant had regularly scheduled colonoscopies or refused participation for another reason, they were not given an FOBT test kit. Eighteen of 61 FOBTs given in quarter 02 were returned and more completed FOBT tests will likely be returned after the end of the quarter. For those who are given an FOBT but do not return it, a follow-up letter is mailed as a reminder. For those with positive results, a repeat FOBT is offered as well as a referral for further follow-up.

Fecal Occult Blood Tests	Before Current Grant 7/1/11-8/31/19	Yr. 1 Q2 12/1/19- 2/29/20	Yr. 1 total to date	Cumulative totals
# FOBTs given	2,223	61	134	2,357
# FOBTs returned	846	18	43	889
# FOBTs abnormal	4	0	0	4

### Outside Radiology Reads:

A reader from a panel of five certified B-readers, including three radiologists, read every image taken through the screening program. Screening CT scans are only distributed to the three radiologists; chest x-rays are distributed to all five B-readers on the panel. Images are distributed by mail to readers in a systematic cyclic process to ensure even workloads. Outside reads typically take 4-7 weeks to be returned, so the number of returned reads reported for each new quarter is usually low. The cumulative total of reads received reflects all of them, even though they were not received during the grant quarter that the participant was screened in.

Outside Read Findings	Before Current Grant	Yr. 1 Q2	12/1/19	Yr. 1 total to date	Cumulative totals
	7/1/11-8/31/19	2/29/20			
# CXRs	6,361	160	342		6,703
# B reads	6,313	76	256		6,569
# B reads abnormal	551	5	14		565
Pleural	452	4	12		464
Interstitial	73	1	2		75
Both	26	0	0		26
# CTs	4,229	86	174		4,403
# Outside CT reads	4,163	23	99		4,262
# Outside CT reads abnormal	1,453	5	22		1,475
Pleural only	797	2	8		805
Interstitial only	370	3	12		382
Both	286	0	2		288

### Quality control panel readings of radiographs and HRCT scans:

Twice annually, peer review sessions are held as a quality control measure. During each session, all readers on the panel attend a telephone conference to review image reads with their peers. Prior to each conference call the B-readers each read the same set of 54 chest x-rays, and the radiologists read the same set of 24 CT scans. Their read results are provided to the panel and any dissension in how the images were read by the groups of readers is discussed. No peer review sessions have taken place in year 01 yet but the images for peer review have been sent to readers and most have been returned.

### Lung Cancer Screening for High Risk Individuals:

Early detection of possible asbestos-related cancers through participation in Lung Cancer Screening (LCS) is available to high risk individuals. Participants eligible for the LCS program are between the age of 55-84, have at least 20 pack years of smoking history, and were diagnosed with ARD or had Libby asbestos exposure and a nodule greater than 6 mm. A thoracic radiologist experienced in lung cancer detection reads all low-dose CT scans (LDCTs). Lung cancers reported in Table 8 do not include lung cancers identified through the asbestos related disease screening program. None of this quarter's lung cancer screening participants were smokers were but those who are, are given brief cessation education and counselling and offered free one-on-one counselling as well. Each smoker participating in the program also received smoking cessation materials with their lung cancer screening results. For those with normal results, the participant is typically contacted by CARD staff with results after a medical provider reviews them. A provider visit to discuss results may be requested by the participant and/or by the CARD medical provider if results warrant it. Every participant is educated about option of a provider visit and the benefits and risks of the LDCT screening in a pre-engagement letter sent prior to participation. Results letters are sent to each participant after screening for their records.

	Before Current Grant 7/1/11-8/31/19	Yr. 1 Q2 2/29/20	12/1/19 Yr. 1 total to date	Cumulative totals
<b>Lung Cancer Screening</b>				
# completed LDCTs	3,008	128	269	3,277
# new LCS participants	not collected	21	46	not collected
# of established participants	not collected	107	223	not collected
# less than annual f/u	not collected	19	31	not collected
# referrals	not collected	3	9	not collected
# confirmed cancers	29	0	2	31
# other findings	not collected	0	1	not collected
# current smokers	not collected	0	39	not collected
# no longer participating	not collected	100	100	not collected

Lung cancer screening is considered most effective when conducted annually so that cancers can be found at the earliest stages and be treated more effectively. Table 9 shows that most lung cancer screening participants do screen over consecutive years. Participants join the program whenever they become eligible and interested, but some drop out due to being diagnosed with lung cancer, dying, moving out of the area, aging out of the program, or being lost to follow-up for some other reason. For those who remain local and eligible to participate in the program, three recall attempts are made annually to encourage ongoing participation.

	Before Current Grant 7/1/11-8/31/19	Yr. 1 Q2 2/29/20	12/1/19 Yr. 1 total to date	Cumulative totals
<b>Consecutive years</b>				
Established LDCT participants	478	128	244	722
Participated 2-4 consecutive years	283	51	116	399
Participated 5-8 consecutive years	141	37	78	219
Rescreened but not consecutive years	54	40	50	104

### **ANA screening:**

A screening blood test for antinuclear antibodies (ANA) has been added to the ARD screening program for this grant. The test is offered to all ARD screening participants based on research that has shown a relationship between Libby asbestos exposure and autoimmune disease. Table 10 summarizes ANA test results. Those with positive results are educated and if medically warranted brought in for an additional provider visit and/or referred to rheumatology. Results are also sent to Dr. Jean Pfau quarterly for review and interpretation.

	Before Current Grant	Yr. 1 Q2	Yr. 1 total to date	Cumulative totals
# ANA tests completed	not collected	108	216	not collected
# Abnormal ANA	not collected	24	43	not collected
# Abnormal ANA requiring f/u	not collected	11	12	not collected

### **ANA interpretation:**

This screening group continues with trends reported previously for Libby, by presenting with a high frequency of positive ANA tests and of autoimmune diagnoses. However, this group had few reported cases of lupus, scleroderma and sarcoidosis, which were three of the diseases with significant increases in prevalence in Libby compared to expected (Diegel, R., 2018). This screening group has a very high frequency of autoimmune symptoms (39.8%), suggesting a

continuing concern about undiagnosed autoimmune conditions that do not meet diagnostic criteria, but that fit the diffuse characteristics of the autoimmune conditions seen in populations exposed to Libby Asbestiform Amphiboles (LAA) (Diegel R., 2018). In this group, a negative ANA test was not associated with likelihood of a negative CT test, contrary to what we hypothesized from our previous work (Pfau, J., et al., 2019). Similar to our previous publication, there is a higher frequency of positive CT scans with pleural findings among those patients who are ANA positive, suggesting an association between an autoimmune marker and pleural disease. However, these data are preliminary, with very small numbers of patients. The data will be further evaluated in the future when more of the CT scans are completed.

### Smoking Cessation:

Smoking cessation continues to be extremely important for patient health maintenance and the screening program goals. Respiratory therapists and spirometry techs provide brief counseling to all identified smokers upon review of their tobacco use history questionnaire. Past quit attempts and current interest in quitting are explored. If interested, educational material is given and referral is made to CARD's Case Manager. Medical providers also educate about the importance of smoking cessation and refer to the Case Manager for free cessation counseling when patients express genuine interest in pursuing cessation. The Case Manager also provides education and resources such as CARD's smoking cessation booklet and Montana Quit Line information (counseling, follow up calls and cessation medications at low or no cost). Smoking cessation information is placed in the waiting room and all patient care rooms as well. Community education about smoking prevention and cessation has been added to this table 11 for this grant.

Smoking Cessation	Before Current Grant 7/1/11-8/31/19	Yr.1 Q2 12/1/29-2/29/20	Yr. 1 total to date	Cumulative totals
# of screeners who smoked	706	32	53	759
# who quite since last screening appointment	50	3	5	55
# brief cessation ed by medical staff	395	19	40	435
# booklets mailed regionally/nationally	not collected	5	17	17
# booklets given in clinic/local	not collected	72	106	106
# individual follow up smoking cessation sessions	not collected	28	46	46
# engaged in ongoing counseling	47	7	12	59
community members educated re: smoking cessation/prevention	not collected	0	468	468

**Goal 2: Conduct Nationwide Outreach to Raise Awareness (of screening and certain Medicare benefits) and Goal 3: Provide Nationwide Health Education (to detect, prevent, and treat environmental health conditions)**

Outreach and education go hand in hand. The goals of providing outreach and education, about asbestos health and lung cancer screening, risk factors, asbestos related disease, health

management, and certain Medicare benefits are often approached as one combined goal. Quality control processes are in place as the Outreach Coordinator works very closely with the screening Project Director and all other appropriate CARD staff to develop and conduct screening outreach and educational activities. All final printed materials and community engagement activities are approved by the Project Director. CARD's physician reviews and approves all technical and medical educational materials for professional audiences. Three main outreach and education audiences include current and potential screening participants, members of the general public who could encounter Zonolite attic insulation or other environmental health hazards, and medical professionals. Each screening participant receives a patient education book along with in person education by CARD staff, and all smokers are offered free smoking cessation services by CARD's Case Manager. In addition, anyone diagnosed with ARD receives benefits education about Medicare benefits and the Medicare Pilot Program for Asbestos Related Disease (MPPARD).

#### Outreach Efficacy for Enrollment in Certain Medicare Benefits for ARD:

A detailed goal of the grant is to increase awareness about Medicare benefits available for individuals diagnosed with ARD resulting from Libby asbestos exposure. Traditional Medicare becomes available after ARD diagnosis as a result of Libby asbestos exposure regardless of the individual's age or disability status. Receipt of Medicare is facilitated by placing an EHH (Environmental Health Hazard) designation on an individual's Medicare status if they are diagnosed with Libby ARD. The MPPARD is also available for EHH Medicare patients who live in the program's designated geographic area (The counties of Lincoln, Flathead, Glacier, Lake, Sanders, Mineral, and Missoula in Montana; Benewah, Bonner, Boundary, Clearwater, Kootenai, Latah, and Shoshone in Idaho; and Ferry, Lincoln, Ponderay, Spokane, Stevens and Whitman in Washington.)

The numbers reported below in Table 12 are not all screening participants as some had a diagnosis of ARD resulting from Libby asbestos exposure prior to implementation of the current and prior screening grants. The number of people over 65 is low because they already have Medicare and only need an EHH if they are eligible for and interested in the MPPARD. Table 13 also includes the number of individuals who have improved access to medical care for chronic conditions. This means they are under age 65, have signed up for Medicare via EHH, and they have a chronic condition that needs ongoing medical monitoring. The chronic conditions include: rheumatoid arthritis, lupus, chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), pacemaker, intraventricular cardiac defibrillator (CD), hypertension, or diabetes.

	<b>Before Current Grant 7/1/11- 8/31/19</b>	<b>Yr.1 Q2 12/1/29-2/29/20</b>	<b>Yr. 1 total to date</b>	<b>Cumulative totals</b>
<b>Certain Medicare Benefits</b>				
# of EHHs completed	3,263	29	57	3,320
# of EHHs for people over 65	1,101	10	20	1,121
# of EHHs for people under 65	2,162	11	29	2,191
# who have improved access to medical care for chronic conditions	716	6	10	726

Table 13 reports use of MPPARD benefits. The categories reported in the table were updated during the last year of the prior grant to reflect the most accurate numbers available to CARD. After an individual is diagnosed through the screening program, the process to get on the MPPARD takes two months. For example, if an individual is diagnosed on Dec. 5, their EHH will be effective Jan. 1 and their MPPARD benefits will be effective Feb. 1.

<b>Pilot Benefit Utilization</b>	<b>Before Current Grant 7/1/11-8/31/19</b>	<b>Yr.1 Q2 12/1/19-2/29/20</b>	<b>Yr. 1 total to date</b>	<b>Cumulative totals</b>
# enrolled in Medicare Pilot	1,728	12	32	1,760
# <b>screening</b> participants enrolled in Pilot after diagnosis	672	2	3	675
# of paid Pilot claims	not collected	2,124	4,282	4282
# Pilot related encounters (face to face, email, phone call, education)	not collected	299	518	518
# Pilot approved service authorizations processed	not collected	132	362	362
# community Pilot education	not collected	23	283	283

### **Why Are Individuals Being Screened?**

CARD tracks why individuals are being screened to better understand and meet the needs of new and potential screening participants. This facilitates our efforts to continue reaching potential participants who aren't aware of the free screening program. This information also helps CARD develop effective outreach materials and to focus educational efforts on areas of interest to potential and current screening participants.

	<b>Before Current Grant 7/1/11-8/31/19</b>	<b>Yr.1 Q2 12/1/19-2/29/20</b>	<b>Yr. 1 total to date</b>	<b>Cumulative totals</b>
# answered the question	3,150	125	288	3,438
# LDS	643	28	72	715
# in clinic	2,507	97	216	2,626
Medical concerns	1,382	41	76	1,458
Family member diagnosed	739	28	67	806
Access to Benefits	268	6	19	287
Support research	316	8	18	334
Legal reasons	54	1	7	61
Screening purposes/multiple	280	41	101	381
Employer Requested Screening	111	0	0	111

### **Outreach Effectiveness Measure:**

When individuals engage in screening, they are asked the multiple choice question, "How did you hear about the CARD screening program?" to help CARD measure the effectiveness of outreach activities. Answers are reported in the table 15 with in-clinic and long distance reported separately as outreach efforts for those two populations are different. Results are reviewed by

the Outreach Coordinator, Project Director, and our contracted marketing firm to determine most effective methods and where to focus efforts moving forward.

**TABLE 15: HOW DID YOU HEAR ABOUT THE CARD SCREENING PROGRAM?**

How did you hear about screening? (IC= in clinic, LD= long distance)	Before Current Grant 7/1/11-8/31/19	Yr.1 Q2 12/1/19- 2/29/20	Yr. 1 total to date	Cumulative totals
IC- # who answered	3,213	97	216	3,429
IC- traditional advertising (radio, TV, newspaper)	1,548	44	105	1,653
website/social media	0	20	20	20
IC- Community networking (parades, local events)	1,329	33	62	1,391
LD- # who answered	600	28	77	677
LD- traditional advertising (radio, TV, newspaper)	244	11	25	269
website/social media	44	7	24	68
LD- Community networking (events, word of mouth)	312	10	28	340

#### **Targeted Outreach and education- Local and regional/national:**

Many residents of the local area have still not participated in screening, and others have only been screened once a number of years ago. For this reason, recruitment continues locally, and education as well as community outreach are extremely important. Ongoing education to locals helps remind them about the free screening program, reinforces the importance of rescreening, and corrects any misinformation that takes hold through social media or community conversations. Maintaining and improving relationships with local businesses and tourism efforts are also very important to counter a deep-rooted community concern that Libby's asbestos legacy hurts the local economy and deters tourism. CARD works to be a positive force in the community supporting local causes and participating in community events as much as possible, especially educationally. The local area is considered the communities of Libby, Troy, Eureka, Yaak, Kila, Marion, Bull Lake, Trout Creek, Thompson Falls and Noxon. Table 16 details local outreach and education efforts. The local events sponsored during quarter 2 included providing student rewards to local public school students, supporting the hospital's annual festival gala, a senior event at Libby high school, the sheriff's office shop with a cop program, Judy Graham memorial playground, Libby High School Cheerleading, Libby Middle School ski trip, Christmas is for kids program, Cabin Fever Fest, Green Chain Wrestling, Libby's Chamber of Commerce fundraising dinner, Fisher River fire department's fishing derby, Turner Mountain's fun day, and McGregor lake's fishing derby. CARD's outreach coordinator also presented at the Chamber of Commerce's monthly meeting and discussed the new ANA component of screening. All of these activities help keep CARD visible in a positive light in the community and also offer opportunities to educate about the services CARD offers. In conjunction with Brand it, CARD also used Google AdWords to drive traffic to our website for additional outreach and education.

<b>TABLE 16: TARGETED OUTREACH AND EDUCATION- LOCAL</b>				
<b>Method</b>	<b>Before Current Grant 7/1/11-8/31/19</b>	<b>Yr.1 Q2 12/1/19- 2/29/20</b>	<b>Yr. 1 total to date</b>	<b>Cumulative totals</b>
Local newspaper ads -outreach	598	36	72	670
Question and Answer article in local newspaper- education	47	3	6	53
Health Link and Health Resource Guide -outreach	10	1	1	11
Radio ads -outreach	9,500	1,280	2560	12,060
TV ads -outreach	8,236	195	390	8,626
Educational brochures given (screening, LCS, LDS)	443	21	38	481
Patient Education booklets - education	3,452	89	175	3,627
Parades-Outreach	36	0	1	37
Community events sponsored - outreach	140	13	30	170
Community meetings	218	25	45	263
Google AdWords Impressions	not collected	3,339	3,696	3,696
Google AdWords Clicks	not collected	222	238	238
Website visits -outreach	not collected	455	702	702
Website visits -patient education	not collected	189	275	275
community presentations/ events attended	76	1 Chamber Luncheon	4	80
website provider education	not collected	46	72	72

Table 17 details regional and national outreach and education efforts. An article was published in the Montana Public Health Association's newsletter about screening this quarter. In January, the Outreach Specialist attended the Vancouver health, Wellness and Awareness Fair with approximately 50 other exhibitors. An estimated 200 people visited CARD's booth to discuss screening, asbestos related education, and the new ANA component of screening. In February, she attended the Moscow Idaho Health and Wellness fair where another 200 participants were educated.

<b>TABLE 17: TARGETED OUTREACH AND EDUCATION- REGIONAL &amp; NATIONAL</b>				
<b>Method</b>	<b>Before Current Grant 7/1/11-8/31/19</b>	<b>Yr.1 Q2 12/1/19- 2/29/20</b>	<b>Yr. 1 total to date</b>	<b>Cumulative totals</b>
Newspaper -outreach	76	10	19	95
Radio ads -outreach	10,242	450	575	10,817
TV ads -outreach	8,236	2713	2908	11,144
Website -outreach	not collected	5504	8987	8987
Website -patient education	not collected	724	1199	1199
Website -provider education	not collected	189	314	314
Google AdWords Impressions- outreach	not collected	21090	39127	39127
Google AdWords Clicks- outreach	not collected	1126	2003	2003
Educational brochures given (screening, LCS, LDS)	not collected	37	47	47
YouTube Channel	14,100	495	1047	15,147
Patient Education booklets - education	3,298	72	172	3,470
Lung cancer screening brochures - outreach	180	3	10	190
Health promotion events sponsored -outreach	36	2	3	39
Impressions	not collected	1612	7192	7192

### **Targeted Outreach/Education to medical professionals**

Raising awareness about Libby asbestos within the medical community is important to help facilitate referrals and coordinate care. Provider education packets are sent to primary care providers of screening participants with their screening results. Google AdWords was used to drive traffic to the provider education portion of our website. CARD participated in a community needs assessment at Cabinet Peaks Medical Center as well as on a team working towards implementation of an electronic referral system for provider to provider communications locally and regionally. In addition, Dr. Black was invited by the Oxford University Press to contribute to Oxford Bibliographies in public health which will offer outreach opportunities for medical professionals moving forward. A national press release regarding ANA was also sent out and picked up by 110 media outlets nationwide.

Method	Before Current Grant 7/1/11-8/31/19	Yr.1 Q2 12/1/19- 2/29/20	Yr. 1 total to date	Cumulative totals
Website -provider education	not collected	189	314	314
Mailings	not collected	0	47	47
CARD newsletter -education	27,948	0	0	27,948
provider education book mailed	1,351	87	184	1,535
Professional Conferences - education/outreach	45	0	2	47
Medical professionals -education	188	4	7	195
Pressreleases-Targeted Rheum.	not collected	110 pick up	129 pickup	239 pick up
ANA Targeted outreach	not collected	300	300	300

### Website Use:

CARD's website is an important tool for outreach, education, and communication with target populations. Table 19 summarizes use of CARD's website during quarter 2. Website materials are regularly updated and use is tracked to help improve content for users.

Website Use	Before Current Grant 7/1/19-8/31/19	Yr.1 Q2 12/1/19- 2/29/20	Yr. 1 total to date	Cumulative totals
Screening applications completed online	202	27	63	265
Contact CARD emails via website	433	21	50	483
# of sessions	103,871	3,128	5069	108,940
# pages viewed	252,023	5,504	8987	261,010
session length 30+ minutes	1,398	12	26	1,424
session length 10-30 minutes	13,642	177	235	13,877
session length 3-10 minutes	29,537	172	257	29,794
session length 1-3 minutes	21,664	174	274	21,938
session length 31-60 seconds	9,413	95	167	9,580
session length 11-30 seconds	12,448	107	178	12,626
session less than 10 seconds	bounce factor	2,391	3932	3932
Page depth: 1-9 Pages viewed in session	25,499	3,088	5908	31,407
10-14 Pages viewed in session	1,709	26	306	2,015
15-19 Pages viewed in session	614	8	164	778
20+ Pages viewed in session	734	6	233	967
# of users	39,074	3,128	5069	N/A
# new users	not collected	92%	91%	N/A
# returning users	not collected	8%	8%	N/A
Male users	not collected	42%	44%	N/A
Female users	not collected	57%	56%	N/A
Age between 18-24	not collected	9%	7%	N/A
Age between 25-34	not collected	23%	22%	N/A
Age between 35-44	not collected	14%	16%	N/A
Age between 45-54	not collected	18%	19%	N/A
Age between 55-64	not collected	17%	19%	N/A
Age 65+	not collected	15%	13%	N/A

**CARD Annual Rally:**

CARD's annual Rally was held on November 7, 2019 during quarter 1. The event was staffed by over 12 CARD employees and 10 community health education partners who volunteered to help host the free, two-hour, fun, educational, and family-friendly afterschool event in the Libby elementary school gymnasium. The annual theme was *Navigating your way to better health*. Six interactive stations that engaged and educated participants included the following topics: (1) asbestos (2) smoking and vaping (3) alcohol and drugs (4) resources for ages 0-5 (4) resources for teens and adults (5) resources for seniors.

The annual Rally event is an excellent way to engage local youth and their families in education about asbestos related disease and other important health topics. Upon completion of all booths, prizes or other useful items such as mini first aid kits with CARD Screening information were offered.

**CHALLENGES:****REASON FOR DELAY AND ANTICIPATED CORRECTIVE ACTION OR DELETION****COVID-19:**

There wasn't a significant impact on screening due to COVID-19 during quarter 2, but quarter 3 to date, has been significantly impacted by governmental orders to shelter in place and our local hospital stopping all non-essential testing including imaging for both asbestos health and lung cancer screening. These events, and the protection of our patients with respiratory disease have caused CARD to close temporarily and our project coordinator for the grant was notified. In addition, all outreach and educational activities involving groups have been cancelled.

**STATUS OF PROGRAM, SCREENING, INFRASTRUCTURE, AND STAFF**

The grant goals and objectives were implemented successfully and on schedule throughout the second quarter of year 01 of the grant. CARD's infrastructure remains solid with a strong administrative and implementation team, our Medical Director, and a Physician Assistant, who all contribute to the success of the grant. In addition, a new physician, Dr. Lee Morrissette was hired and started working at the beginning of quarter 2. She has been training with Dr. Black and has begun seeing screening patients. She spent 21 years in the military and has a master's degree in public health. Quality assurance processes are successfully in place for delivery of ARD and LCS screening activities, data management, outreach and educational activities. Completeness and accuracy of the database is evident by consistency of data reported across multiple tables. All data is quality controlled and scrubbed for complete accuracy before reports and table outcomes are generated. All screening CT scans are read by a qualified physician, so CARD's physician reads all CT images ordered by the Physician Assistant.

Patients regularly reach out to express their appreciation of the grant services and our staff. This quarter, one patient in particular pointed out how he felt like CARD's staff made him their top priority throughout his visit. Another patient on Feb. 5 went through screening and asked our receptionist to pass on his thanks to our staff who were all "very friendly and helpful." Another screening patient seen on Jan. 8 wrote a note saying, "Thank you all for what you all do for us asbestos victims and families. You rock in my world."

CARD's Case Manager has signed up to become a certified smoking cessation counselor and

will take the course during quarter 3. A new spirometry tech was NIOSH certified during quarter 2, Kathy Hall, who was recently hired as Dr. Lee's medical assistant as well as to perform spirometry tests. CARD's HR Manager also participated in continuing education regarding workplace safety, organizing, and prioritizing job duties during this quarter.

### **MEASURES OF EFFECTIVENESS**

Measures of effectiveness were reported under each specific goal above.

### **FINANCIAL RECAP OF GRANT EXPENDITURES**

At the end of the first quarter of year 02, the grant was expended in the amount of \$703,645.80 (28%) of the total grant award for year 01 which was \$2,499,969.00.