Libby Montana's Public Health Emergency, Asbestos Health Screening
Center for Asbestos Related Disease
Grant Number 6 NU61TS000295-01-01
Year 1, Quarter 1
(September 1, 2019 through November 30, 2019)

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 first 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. CARD has adjusted our data collection to record type of exposure and will begin reporting that next quarter.

TABLE 1: SCREENING OUTCOMES			
Screening Outcomes	**Before Current Grant 7/1/11-8/31/19**	**Yr.1 Q1 9/1/19-11/30/19**	**Cumulative totals**
# ARD screenings	6,563	186	6,749
# CT diagnostic appointments	4,229	88	4,317
# ARD diagnosed	2,552	36	2,588
# ARD Medicare eligible	2,880	42	2,922
% diagnosed w/ environmental exposure only	not collected	Will report next quarter	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; over 30% of all screening patients are 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 both 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.

TABLE 2: TYPES OF SCREENING APPOINTMENTS AND DIAGNOSIS RATES			
Appointment Type	**Before Current Grant 7/1/11-8/31/19**	**Yr.1 Q1 9/1/19-11/30/19**	**Cumulative totals**
# screenings	6,563	186	6,749
# new screening patients	4,806	59	4,865
# rescreenings	1,757	127	1,884
# Lincoln County, MT residents	3,366	86	3,452
# LDS eligible screenings done in clinic	2,679	64	2,743
# of LDS patients	519	36	555
# in clinic appointments (includes both visits)	9,445	214	9,659
#LDS appointments	1,347	60	1,407
Consented for TAR registry	5,015	149	5,164
Consented to notify PCP of results	not collected	152	not collected
# past screeners diagosed with ARD seen for f/u	not collected	257	not collected

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

TABLE 3: DEMOGRAPHICS OF SCREENING PARTICIPANTS			
Demographics	**Before Current Grant 7/1/11-8/31/19**	**Yr.1 Q1 9/1/19-11/30/19**	**Cumulative totals**
# screenings	6,563	186	6,749
# females	3,448	113	3,561
# males	3,115	73	3,188
# under age 35	351	6	357
# between 35-49	1,289	32	1,321
# between 50-64	3,279	86	3,365
# age 65+	1,644	62	1,706

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 Q1 9/1/19-11/30/19	Cumulative totals
# screenings	6,563	186	6,749
# symptomatic	4,408	106	4,514
# abnormal spirometry	1,699	46	1,745
# abnormal BMI (≥30)	not collected	81	not collected
# CXRs completed	6,361	182	6,543
# no CXR done	202	4	206
# abnormal CXR (CARD)	394	7	401
pleural only	356	7	363
interstitial only	19	0	19
both	19	0	19
# CTs completed	4,229	88	4,317
# abnormal CT (CARD)	2,525	36	2,561
pleural only	1,988	27	2,015
interstitial only	12	1	13
both	525	8	533

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. Patients with significant findings are referred for appropriate follow-up, but not all patients share the results of these follow-ups with CARD. Only cancers for which CARD has medical record confirmation are reported. 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.

TABLE 5: SIGNIFICANT FINDINGS IDENTIFIED THROUGH ARD SCREENING			
Significant Findings	**Before Current Grant 7/1/11-8/31/19**	**Yr.1 Q1 9/1/19-11/30/19**	**Cumulative totals**
# lung masses	57	2	59
# thyroid masses	22	0	22
# kidney masses	23	0	23
# breast masses	19	0	19
# other masses	52	0	52
Total # masses identified	173	2	175
# focal opacities	1,123	51	1,174
# cancers verified possibly asbestos related	not collected	8	not collected
# incidental findings	not collected	Will report next quarter	not collected
# specialist referrals	not collected	Will report next quarter	not collected
# depression follow-ups	not collected	41	not collected

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. Twenty-five of 73 FOBTs given in quarter 01 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.

TABLE 6: FECAL OCCULT BLOOD TESTING FOR EARLY DETECTION OF COLON CANCER			
Fecal Occult Blood Tests	**Before Current Grant 7/1/11-8/31/19**	**Yr.1 Q1 9/1/19-11/30/19**	**Cumulative totals**
# FOBTs given	2,223	73	2,296
# FOBTs returned	846	25	871
# FOBTs abnormal	4	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.

TABLE 7: SINGLE OUTSIDE READ RESULTS BY B-READER (CXR) OR RADIOLOGIST (CT)			
Outside Read Findings	Before Current Grant 7/1/11-8/31/19	Yr.1 Q1 9/1/19-11/30/19	Cumulative totals
# CXRs	6,361	182	6,543
# B reads	6,313	59	6,372
# B reads abnormal	551	4	555
Pleural	452	4	456
Interstitial	73	0	73
Both	26	0	26
# CTs	4,229	88	4,317
# Outside CT reads	4,163	33	4,196
# Outside CT reads abnormal	1,453	6	1,459
Pleural only	797	4	801
Interstitial only	370	2	372
Both	286	0	286

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 dissention 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.

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. The 28% (39 of 141) of lung cancer screening participants who were smokers were 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.

TABLE 8: LUNG CANCER SCREENING OUTCOMES SPECIFICALLY FROM LUNG CANCER SCREENING PROGRAM			
Lung Cancer Screening	**Before Current Grant 7/1/11-8/31/19**	**Yr.1 Q1 9/1/19-11/30/19**	**Cumulative totals**
# completed LDCTs	3,008	141	3,149
# new LCS participants	not collected	25	not collected
# of established participants	not collected	116	not collected
# less than annual f/u	not collected	12	not collected
# referrals	not collected	6	not collected
# confirmed cancers	29	2	31
# other findings	not collected	1	not collected
# current smokers	not collected	39	not collected
# no longer participating	not collected	will report next quarter	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.

TABLE 9: STAGE CONFIRMED CANCER IDENTIFIED			
Stage Identified	**Before Current Grant 7/1/11-8/31/19**	**Yr.1 Q1 9/1/19-11/30/19**	**Cumulative totals**
# confirmed cancers	29	2	31
Cancer identified in stage 1	14	0	14
Cancer identified in stage 2	5	0	5
Cancer identified in stage 3 or 4	5	0	5
Cancer identified without stage	5	2	7

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 11 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.

TABLE 11: ANA Results			
# ANA tests completed	not collected	108	not collected
# Abnormal ANA	not collected	19	not collected
# Abnormal ANA requiring f/u	not collected	Will report next quarter	not collected

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 12 for this grant. During quarter 1, CARD's Case Manager attended a career fair at Troy High School where she educated 200 students about the importance of smoking prevention and cessation. In addition, CARD partnered with Lincoln County Health Department at our annual Rally event to educate 268 community members on the topic.

TABLE 12: SMOKING CESSATION OUTCOMES AND OURTREACH ACTIVITIES

Smoking Cessation	Before Current Grant 7/1/11-8/31/19	Yr.1 Q1 9/1/19-11/31/19	Cumulative totals
# of screeners who smoked	706	21	727
# who quite since last screening appointment	50	2	52
# brief cessation ed by medical staff	395	21	416
# booklets mailed regionally/nationally	not collected	12	not collected
# booklets given in clinc/local	not collected	34	not collected
# individual follow up smoking cessation sessions	not collected	18	not collected
# engaged in ongoing counseling	47	5	52
community members educated re: smoking cessation/prevention	not collected	468	not collected

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 cessations 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 goas 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 13 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.

TABLE 13: ENVIRONMENTAL HEALTH HAZARD (EHH) DESIGNATION AND ELIGIBILITY FOR BENEFITS

Certain Medicare Benefits	Before Current Grant 7/1/11-8/31/19	Yr.1 Q1 9/1/19-11/31/19	Cumulative totals
# of EHHs completed	3,263	28	3,291
# of EHHs for people over 65	1,101	10	1,111
# of EHHs for people under 65	2,162	18	2,180
# who have improved access to medical care for chronic conditions	716	4	720

Table 14 reports use of MPPARD benefits. The categories reported in the table were updated in 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.

Table 14: UTILIZATION OF PILOT BENEFITS			
Pilot Benefit Utilization	**Before Current Grant 7/1/11-**	**Yr.1 Q1 9/1/19-11/31/19**	**Cumulative totals**
# enrolled in Medicare Pilot	1,728	20	1,748
# **screening** participants enrolled in Pilot after diagnosis	672	1	673
# of paid Pilot claims	not collected	2158	not collected
# Pilot related encounters (face to face, email, phone call, education)	not collected	219	not collected
# Pilot approved service authorizations processed	not collected	230	not collected
# community Pilot education	not collected	260	not collected

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.

TABLE 15: WHY ARE YOU BEING SCREENED?			
	Before Current Grant 7/1/11-8/31/19	**Yr.1 Q1 9/1/19-11/30/19**	**Cumulative totals**
# answered the question	3,150	163	3,313
# LDS	643	44	687
# in clinic	2,507	119	2,626
Medical concerns	1,382	35	1,417
Family member diagnosed	739	39	778
Access to Benefits	268	13	281
Support research	316	10	326
Legal reasons	54	6	60
Screening purposes/multiple	280	60	340
Employer Requested Screening	111	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 16 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 16: 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 Q1 9/1/19-11/30/19**	**Cumulative totals**
IC- # who answered	3,213	119	3,332
IC- traditional advertising (radio, TV, newspaper)	1,548	61	1,609
IC- Online (website, social media)	336	29	365
IC- Community networking (parades, local events)	1,329	29	1,358
LD- # who answered	600	49	649
LD- traditional advertising (radio, TV, newspaper)	244	14	258
LD- Onine (website, social media)	44	17	61
LD- Community networking (events, word of mouth)	312	18	330

Targeted Outreach and education- Local and regional/national:

Many residents of the local area have been 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, reinforce the importance of rescreening, and correct 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 17 details local outreach and education efforts. The local events sponsored during quarter 1 included back to school supply events, community connections fair bringing local resources together, youth teams including soccer and cheerleading, school booster clubs, Ignite the Nites car show, police vs. firefighters softball game, the harvest festival blues festival and nordicfest as well as paint it pink, trunk or treat, and the Libby elementary school ROAR program. 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 used Google Adwords to drive traffic to our website for additional outreach and education. Results of this effort are reported under the local efforts but next quarter will be separated out between local and regional/national.

Table 18 details regional and national outreach and education efforts. The health promotion event reported during quarter 1 was a mine safety conference in Reno, Nevada attended by CARD's outreach specialist. This event offered an opportunity to recruit potential screening participants, raise awareness, and educate about dust diseases. A press release was sent out to PR Newswire regarding the lung cancer screening manuscript published near the end of the prior

grant. It was picked up by 124 different media outlets and included both outreach about the screening program and education.

TABLE 17: TARGETED OUTREACH AND EDUCATION- LOCAL			
Method	**Before Current Grant 7/1/11-8/31/19**	**Yr.1 Q1 9/1/19-11/30/19**	**Cumulative totals**
Local newspaper ads -outreach	598	36	634
Question and Answer article in local newspaper- education	47	3	50
Health Link and Health Resource Guide -outreach	10	0	10
Radio ads -outreach	9,500	1,280	10,780
TV ads -outreach	8,236	195	8,431
Educational brochures given (screening, LCS, LDS)	443	17	460
Patient Education booklets - education	3,452	86	3,538
Parades-Outreach	36	1	37
Community events sponsored - outreach	140	17	157
Commmunity meetings	218	20	238
Google AdWords Impressions	not collected	18,037	not collected
Google AdWords Clicks	not collected	877	not collected
Website visits -outreach	not collected	1941	not collected
Website visits -patient education	not collected	475	not collected
community presentations/ events attended	76	3	79
# educated	not collected	483	not collected

TABLE 18: TARGETED OUTREACH AND EDUCATION- REGIONAL & NATIONAL			
Method	**Before Current Grant 7/1/11-8/31/19**	**Yr.1 Q1 9/1/19-11/30/19**	**Cumulative totals**
Newspaper -outreach	76	9	85
Radio ads -outreach	10,242	125	10,367
TV ads -outreach	8,236	195	8,431
Website -outreach	Reported in local tables. Will break out into local vs. regional/national next quarter.		
Website -patient education			
Website -provider education			
Google AdWords Impressions- outreach			
Google AdWords Clicks- outreach			
Educational brochures given (screening, LCS, LDS)	not collected	10	not collected
CARD newsletter -education	27,948	0	27,948
Patient Education booklets - education	3,298	100	3,398
Lung cancer screening brochures - outreach	180	7	187
Health promotion events sponsored -outreach	36	1	37

Targeted Outreach/Education to medical professionals

Raising awareness about Libby asbestos within the medical community is important to help facilitate referrals and coordinate care. This quarter, because of the new ANA component of screening, a targeted mailing was sent to rheumatologists in Montana, Washington, and Idaho. In addition, provider education packets are sent to primary care providers of screening participants with their screening results. Google AdWords was also used to drive traffic to the provider education portion of our website, and presentations were done at both the American Occupational and Environmental Health conference and the American College of Chest Physicians annual conference. One of the medical professionals educated one-on-one was a NIOSH certified spirometry training instructor who also asked for six additional provider information booklets to take back to her coworkers.

TABLE 19: TARGETED OUTREACH TO- HEALTHCARE PROFESSIONALS			
Method	**Before Current Grant 7/1/11-8/31/19**	**Yr.1 Q1 9/1/19-11/30/19**	**Cumulative totals**
Website -provider education	not collected	78	not collected
Mailings	not collected	47	not collected
CARD newsletter -education	27,948	0	27,948
provider education book mailed	1,351	97	1,448
Professional Conferences - education/outreach	45	2	47
Medical professionals -education (direct 1 on 1 sessions with providers)	188	3	191

Website Use:

CARD's website is an important tool for outreach, education, and communication with target populations. Table 20 summarizes use of CARD's website during quarter 1. Website materials are regularly updated and use is tracked to help improve content for users.

TABLE 20:Website use			
Website Use	**Before Current Grant 7/1/19-8/31/19**	**Yr.1 Q1 9/1/19-11/30/19**	**Cumulative totals**
Screening applications completed on line	202	36	238
Contact CARD emails via website	433	29	462
# of sessions	103,871	1,941	105,812
# pages viewed	252,023	3,483	255,506
session length 30+ minutes	1,398	14	1,412
session length 10-30 minutes	13,642	58	13,700
session length 3-10 minutes	29,537	85	29,622
session length 1-3 minutes	21,664	100	21,764
session length 31-60 seconds	9,413	72	9,485
session length 11-30 seconds	12,448	71	12,519
session less than 10 seconds	bounce factor	1,541	bounce factor
Page depth: 1-9 Pages viewed in se	25,499	2,820	28,319
10-14 Pages viewed in session	1,709	280	1,989
15-19 Pages viewed in session	614	156	770
20+ Pages viewed in session	734	227	961
# of users	39,074	1,941	41,015
# new users	not collected	Will report next quarter	not collected
# returning users	not collected		not collected
Male users	not collected		not collected
Female users	not collected		not collected
Age between 18-24	not collected		not collected
Age between 25-34	not collected		not collected
Age between 35-44	not collected		not collected
Age between 45-54	not collected		not collected
Age between 55-64	not collected		not collected
Age 65+	not collected		not collected

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. This year's 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.

TABLE 21: CARD RALLY OUTCOMES			
	Before Current Grant 7/1/11-8/31/19	Yr.1 Q1 9/1/19-11/30/19	Cumulative totals
# students present	840	268	1,108
# adults present	340	104	444

CHALLENGES:
REASON FOR DELAY AND ANTICIPATED CORRECTIVE ACTION OR DELETION

ANA implementation:
Implementation of the new ANA portion of the screening program has been slow. The lab test needed to be setup and tested at Cabinet Peaks Medical Center (CPMC) prior to implementation delaying the start. In addition, sending of orders and receipt of results through the interface between CARD and CPMC has been a problem with both institution's IT teams working to solve the problem. Despite these delays, ANA testing is being offered and completed, results are being received at CARD, reviewed by CARD's physician, and results are being reported to screening participants.

Reporting gaps:
CARD has added information to our database so that we can improve reporting and further the goals of the grant. Some of these include tracking participants who drop out of the lung cancer screening program and why, as well as separating out our outreach and education efforts locally vs. regionally and nationally. We feel that these changes will allow for better evaluation of program effectiveness. We will use the new information to inform future program outreach, education, and screening implementation needs. Although the changes have been implemented, not all data was clear and retrievable for this quarterly report so there are a few gaps in the tables above. In the quarter 2 report, we will report both quarter 1 and quarter 2 numbers after we have ensured effective and efficient data collection and recording.

STATUS OF PROGRAM, SCREENING, INFRASTRUCTURE, AND STAFF

The grant goals and objectives were implemented successfully and on schedule throughout the first 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. A new physician, Dr. Lee Morrissette was hired and started at the beginning of quarter 2. 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 who was diagnosed and subsequently received benefits education made sure to point out that our medical provider "was more than helpful and provided thorough information." He stated that he was very happy with the services that CARD provides.

CARD's Case Manager has signed up to become a certified smoking cessation counselor and will take the course in the spring. She is also volunteering to facilitate a community class called "living well with a disability" that will be offered to our ARD patients. Another patient went out of her way to point out how helpful our new reception staff are in assisting with proof of presence for participation in screening. A new spirometry tech was NIOSH certified during quarter 1, Kerensa Hanley who has been at CARD for over five years. Hanley also does long distance interviews and works with SwiftCurrent to ensure billing for long distance testing runs smoothly.

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 01, the grant was expended in the amount of $435,926.28 (17%) of the total grant award for year 01 which was $2,499,969.00.