

## Personal Information

Amatariki yo gupima

Screening Date

Izina wabatijwe

First name

Izina wahawe n'ababyeyi

Last name

District/Akarere utuyemo

- Kayonza  
 Other

If other district, specify

(Izina ry'akarere)

Site/Umurenge utuyemo

- Gahini  
 Kabare  
 Kabarondo  
 Mukarange  
 Murama  
 Murundi  
 Mwiri  
 Ndego  
 Nyamirama  
 Rukara  
 Ruramira  
 Rwinkwavu

Cell/Akagari

Village/Umudugudu

Numero ya telephone wabonekaho ni iyihe ? Telephone number

Ese muri iyi minsi uri gukora ubucukuzi bw'amabuye y'agaciro cyangwa warabihagaritse?

- Yes  
 No

Are you currently employed in mining?

Kuki waretse akazi ko gucukura amabuye y'agaciro?

Why are you no longer employed in mining?

- Respiratory Problems  
 Injury  
 Found another job  
 Other

Izina ry'ikigonderabuzima usanzwe wivurizaho?

Name of the closest health care facility to where you live

- Rwinkwavu HC
  - Kageyo HC
  - Karama HC
  - Nyamirama HC
  - Ruramira HC
  - Kabarondo HC
  - Cyarubare HC
  - Ndego HC
  - Rutare HC
  - Other
- 

Niba yivuriza kukindi kigonderabuzima, andika izina ryacyo. / If other, please specify

\_\_\_\_\_

## Rwanda : Silicosis symptoms, Spiro & X-ray

Study ID

---

For how long have you been working in mining? ( in years)

---

Today 's date

---

### SILICOSIS SYMPTOMS in the past 2 weeks)

	Yego/Yes	Oya/No
Persistent cough	<input type="radio"/>	<input type="radio"/>
Shortness of breath	<input type="radio"/>	<input type="radio"/>
Weakness	<input type="radio"/>	<input type="radio"/>

Do you usually bring up phlegm/Sputum when you cough?

Sputum  
 Dry cough  
 No cough

When does coughing normally happen?

When I am at work  
 After climbing a mountain  
 When I am walking so fast  
 When walking in normal way  
 Anytime, even at rest  
 None  
 Other

If other, please specify

---

When does shortness of breath normally happen?

When I am at work  
 After climbing a mountain  
 When I am walking so fast  
 When walking in normal way  
 Anytime, even at rest  
 None  
 Other

If other, please specify

\_\_\_\_\_  
 \_\_\_\_\_

Have you ever worked in the construction industry?

Yes  
No

For how long have you worked in construction ?

---

(In months)

Do you live with someone who smokes?

Yes  
 No

Have you ever smoked?

Yes  
 No

Are you currently a smoker?  Yes  
 No

For how long have you been tobacco-free?  
\_\_\_\_\_ (in months)

How long have you been smoking?  
\_\_\_\_\_ (in months)

### Spirometry results

Spirometry quality grade  A  
 B  
 C  
 D  
 E  
 F

Forced Vital Capacity (FVC) \_\_\_\_\_

Forced expiratory volume in 1 second (FEV1) \_\_\_\_\_

FEV1/FVC ratio \_\_\_\_\_

Peak flow (liter/minute) \_\_\_\_\_

Peak flow (percent) \_\_\_\_\_

Interpretation of spirometry results?  Normal  
 Restrictive abnormality  
 Obstructive abnormality

If restrictive or obstructive, show the severity  Mild  
 Moderate  
 Severe

### Manual interpretation of Spirometry by Boston Team

Manual Spirometry Results interpretation  Normal  
 Abnormal  
 Uninterpretable

If abnormal, is it restrictive or obstructive?  Restrictive  
 Obstructive

If restrictive, show the severity

- Mild restrictive  
 Moderate restrictive  
 Severe restrictive

If obstructive, show the severity

- Mild obstructive  
 Moderate obstructive  
 Severe obstructive

### Local interpretation of Chest X-ray

Was the X-ray done?

- Yes  
 No

Tentative interpretation of X-ray results by  
Rwinkwavu internist/GP

- Normal  
 Abnormal

Record the severity of chest-x-ray abnormalities

- Mild  
 Moderate  
 Severe

Clinical recommendation

- Immediate follow up  
 Increase protective measures  
 GeneXpert test for TB

If GeneXpert test was done, what is the results of the  
TB test?

- Positive  
 Negative

Name of a local health provider who interpreted the  
x-ray

\_\_\_\_\_

### Chest X-Ray evaluation

#### By Radiologist

First name of the radiologist who interpreted the  
X-ray images

\_\_\_\_\_

Technical quality of CXR image

- Good /Grade 1  
 Acceptable with no defect /Grade 2  
 Acceptable with some defect /Grade 3  
 Unacceptable /Grade 4

Is Silicosis suspected?

- Yes  
 No

If silicosis is suspected, show the severity of  
silicosis

- Acute  
 Chronic  
 Progressive massive fibrosis  
 Accelerated

---

Size of opacity observed	<input type="radio"/> small ( = < 1cm) <input type="radio"/> large (>1 cm) <input type="radio"/> Both large and small opacity
--------------------------	---

---

Profusion scores of small opacity	<input type="radio"/> 0/0 <input type="radio"/> 0/1 <input type="radio"/> 1/0 <input type="radio"/> 1/1 <input type="radio"/> 1/2 <input type="radio"/> 2/1 <input type="radio"/> 2/2 <input type="radio"/> 2/3 <input type="radio"/> 3/2 <input type="radio"/> 3/3 <input type="radio"/> 3/+
-----------------------------------	---

---

Shape of small opacity	<input type="radio"/> regular <input type="radio"/> irregular
------------------------	--

---

Predominant size of regular small Opacity	<input type="radio"/> p - diameter of [ $< =1.5$ mm] <input type="radio"/> q - diameter of [1.5 - 3mm] <input type="radio"/> r - diameter of [3 -10mm]
---	--

---

Secondary shape and size of the observed small Opacity	<input type="radio"/> p <input type="radio"/> q <input type="radio"/> r <input type="radio"/> s <input type="radio"/> t <input type="radio"/> u
--	--

---

Record the size , if irregular small opacity	<input type="radio"/> s - width of [ $< =1.5$ mm] <input type="radio"/> t - width of [1.5 - 3mm] <input type="radio"/> u - width of [3 -10mm]
--	---

---

if CXR has large opacities, please record the category of the large opacity	<input type="radio"/> Cat A (< 50mm) <input type="radio"/> Cat B (>50mm, but < right upper zone) <input type="radio"/> Cat C (> = right upper zone)
---	---

---

Is patient suspected to have any other respiratory illnesses?	<input type="radio"/> Yes <input type="radio"/> No
---	---

---

Which other respiratory illness is suspected?	<input type="radio"/> Pneumonia <input type="radio"/> Tuberculosis <input type="radio"/> lymphadenopathy <input type="radio"/> Fibrosis of lung <input type="radio"/> Emphysema <input type="radio"/> Lung collapse <input type="radio"/> Bronchiaectasis <input type="radio"/> Pleural effusion <input type="radio"/> lung cancer <input type="radio"/> Other
---	---

---

If other illness, specify	_____
---------------------------	-------

## TB screening

Date \_\_\_\_\_

### TB CLINICAL SCREENING

	Yego/Yes	Oya/No
Cough lasting more than 2 weeks and with sputum	<input type="radio"/>	<input type="radio"/>
Fever and night sweats in the past 2 weeks	<input type="radio"/>	<input type="radio"/>
Unexplained weight loss in the past 2 weeks	<input type="radio"/>	<input type="radio"/>
Chest pain in the past 2 weeks	<input type="radio"/>	<input type="radio"/>
Loss of appetite in the past 2 weeks	<input type="radio"/>	<input type="radio"/>
Ever diagnosed, or met or lived with someone with TB	<input type="radio"/>	<input type="radio"/>

## Silicosis Research Data

Ukorera kuyihe site?

Working Site

- Gahengeli A
- Gahengeli B
- Gahengeli C
- Gahengeli D
- Rutonde A
- Rutonde B
- Raveri
- Gihinga
- Nyarunazi A
- Nyarunazi E
- Nyarunazi D
- Migera A
- Migera B
- Gahushyi A
- Gahushyi B
- Gahushyi C
- Gahushyi D
- Gahushyi E
- Cross-site
- Other/Ahandi

Have you worked from any other mining site?

\_\_\_\_\_

Ufite imyaka ingahe y'amavuko?

How are old you?

(Date of Birth)

\_\_\_\_\_

Sex/ igitsina

- Male/ Gabo
- Female/ Gore

Irangamimerere ryawe ni irihe?

Marital Status

- Single/Ingaragu
- Married/Narashatse
- Cohabiting/Bitanyuze mumategeko
- Divorced /Twaratanye
- Widow/Narapfakaye

Ese wize amashuri angahe?

What is your highest level of Education?

- No school
- Attended but did not finish primary school
- Completed primary school

Ubana n'abantu bangahe mu rugo?

Family Size

\_\_\_\_\_

Niwowe mukuru w'umuryango?

Are you the head of the Household?

- Yes
- No



Uba mukihe kicro cy'ubudehe?  Category 1  
 Ubudehe category  Category 2  
 Category 3  
 Category 4  
 I do not know

**Waba warigeze ubwirwa na muganga ko urwaye uburwayi bukurikira? Subiza yego cyangwa Oya/ Have you ever been told by a doctor or nurse that you have the following disease?**

	Oya/No	Yego/Yes
Igituntu / TB	<input type="radio"/>	<input type="radio"/>
Umusonga	<input type="radio"/>	<input type="radio"/>
COVID-19	<input type="radio"/>	<input type="radio"/>
Asima /Asthma	<input type="radio"/>	<input type="radio"/>
Diyabete / Diabetes	<input type="radio"/>	<input type="radio"/>
Ubwandu bwa SIDA / HIV	<input type="radio"/>	<input type="radio"/>
Umuvuduko w'amaraso/ Hypertension	<input type="radio"/>	<input type="radio"/>
Uburwayi bw'umutima / Heart Failure	<input type="radio"/>	<input type="radio"/>
Canceri / Cancer	<input type="radio"/>	<input type="radio"/>
Wigeze ubagwa / Prior Surgery	<input type="radio"/>	<input type="radio"/>
Silikoze / Silicosis	<input type="radio"/>	<input type="radio"/>

**Part three: Working environment and risk factors of silicosis**

Ni kuyihe myanya cyangwa imirimo ikorwa mukazi ko gucukura waba warigeze ukoraho? [Hitamo ibisubizo byose bishoboka]  Gutobora urutare/ Drilling

Which stations have you ever worked in? Select all that apply  Gucukura/ Excavation

Guturitsa Intambi/ Blasting

Kumena itaka/ Soil disposal

Kuronga umusaruro/ Harvest washing

Wamaze igihe kingana iki utobora amabuye?(Imyaka)

Length of time of working as a driller

Wamaze igihe kingana iki ukora umurimo wo gucukura (gucukura umwobo wo mu kirombe)?

Length of time working as an excavator

---

Wamaze igihe kingana iki ukora umurimo wo guturitsa intambi?

Length of time working in blasting

---

Wamaze igihe kingana iki ukora umurimo wo kumena itaka?

Length of time working in soil disposal

---

Wamaze igihe kingana iki ukora umurimo wo kuronga umusaruro?

Length of time working in harvest washing?

**3.4 Ibibazo bikurikira birabaza niba ufite ibikoresho by'ubwirinzi mu kazi ukora ko gucukura amabuye y'agaciro. / These questions ask about protective equipment to use at work in mining.**

	Oya	Yego
Ese waba ujya uhabwa uturinda ntoki? / Do you have gloves to wear at work?	<input type="radio"/>	<input type="radio"/>
Waba ujya uhabwa udupfukamuwa twabugenewe mugucukura amabuye yagaciro/ Do you have face masks for mining to wear at work?	<input type="radio"/>	<input type="radio"/>
Waba ufite igisarubeti cy'akazi? / Do you have overalls to wear at work?	<input type="radio"/>	<input type="radio"/>
Iyo urangije akazi utaha ucyambaye igisarubeti? / Do you go home wearing the same clothes you worked in?	<input type="radio"/>	<input type="radio"/>
Waba ufite inkweto z'akazi Bote zabugenewe) / Do you have boots to wear at work?	<input type="radio"/>	<input type="radio"/>
Waba ufite ingofero y'ubwirinzi? / Do you have a Helmet to wear at work?	<input type="radio"/>	<input type="radio"/>

---

Niba uhabwa uturindantoki, wavugako mukwezi gushize wadukoresheje kangahe?

If you have gloves at work, how often do you wear them?

- Nta na rimwe (Never)
- Gake cyane (Rarely)
- Rimwe na rimwe (Sometimes)
- Hafi ya buri gihe (Often times)
- Buri gihe (All the times)

---

Niba uhabwa agapfukamunwa kabugenewe, wavugako mukwezi gushize wagakoresheje kangahe?

If you have face masks at work, how often do you wear them?

- Nta narimwe ( Never)
- Gake cyane (Rarely)
- Rimwe na rimwe (Sometimes)
- Hafi ya buri gihe (Often times)
- Buri gihe (All the times)

Niba uhabwa ingofero y'ubwirinzi, wavugako mukwezi gushize wayambaye igihe cyose uri mukazi kangahe?

If you have overalls at work, how often do you wear them?

- Nta na rimwe (Never)
- Gake cyane (Rarely)
- Rimwe na rimwe (Sometimes)
- Hafi ya buri gihe (Often times)
- Buri gihe (All the times)

Mukwezi gushize, ni kangahe wakarabye ivumbi rikuriho mbere y'uko utaha mu rugo?

If you have change your clothes at work before coming home, how often do you do so?

- Nta na rimwe (Never)
- Gake cyane (Rarely)
- Rimwe na rimwe (Sometimes)
- Hafi ya buri gihe (Often times)
- Buri gihe (All the times)

Iyo wakoze, ni amasaha angahe umara mukazi ?

How many hours per day do you spend at work?

\_\_\_\_\_

Ese mu kirombe ukoramo, iyo mutobora urutare mukoresha amazi?

In the mines, do you use water drilling techniques?

- Yes
- No
- I don't know

Amazi mukoresha mutobora/mumena amabuye aba ahari ku kihe gipimo?

How frequently do you use water drilling techniques?

- Gake cyane (Rarely)
- Rimwe na rimwe (Sometimes)
- Hafi ya buri gihe (Often times)
- Buri gihe (All the times)

Kuva watangira gucukura amabuye y'agaciro, hashize igihe kingana iki mutangiye gukoresha amazi muri gutobora amabuye?

How long have you been using water when drilling stones/rocks?

\_\_\_\_\_

**Mu byumweru 2 bishize, waba waragize ububabare budasanze mu bice by'umubiri bikurikira?**

**In the past two weeks have you experienced pain in the following body parts?**

	Yego/Yes	Oya/No
Umugongo wo hasi / Lower back	<input type="radio"/>	<input type="radio"/>
Umugongo w'ahasubira hejuru Amatako/ Hips or Thighs	<input type="radio"/>	<input type="radio"/>
Ibitugu / Shoulders	<input type="radio"/>	<input type="radio"/>
Ijosi/ Neck	<input type="radio"/>	<input type="radio"/>
Agatuza/ chest	<input type="radio"/>	<input type="radio"/>

Ubugana/ Wrists or hands	<input type="radio"/>	<input type="radio"/>
Ibirenge/Feet	<input type="radio"/>	<input type="radio"/>
Amavi / knees	<input type="radio"/>	<input type="radio"/>

**Ukoresheje igipimo cyo kuva kuri 1-10, aho rimwe ari ububabare buke 10 bukaba ububabare bukabije, garagaza ikigero cy'ububabare wagize mu bice by'umubiri wavuze haruguru? / On a scale of 1 to 10 with 10 being the worst pain you have ever felt, how severe is the pain?**

Ububabare bw'umugongo wo hasi wagize wabuha amanota angahe ku icumi? \_\_\_\_\_

Lower back pain scores/ 10

Ububabare bw'umugongo wo hasi ubumaranye igihe kingana iki? \_\_\_\_\_  
(Show if it's years months or days )  
For how long have you had lower back pain?

Ububabare bw'umugongo wahagana hejuru wabuha amanota angahe ku icumi? \_\_\_\_\_

upper back pain scores/ 10

Ububabare bw'umugongo wahagana hejuru ubumaranye igihe kingana iki? \_\_\_\_\_  
(Show if it's years, months or days )  
For how long have you had upper back pain ?

Ububabare bwo mumaguru /amatako wagize wabuha amanota angahe ku icumi? \_\_\_\_\_

Thigh/leg pain scores/ 10

Ububabare bwo mumaguru /amatako ubumaranye igihe kingana iki? \_\_\_\_\_  
(Show if it's years, months or days )  
For how long have you had thigh/leg pain ?

Ububabare bwo mu bitugu wagize wabuha amanota angahe ku icumi? \_\_\_\_\_

Shoulder pain scores/ 10

Ububabare bwo mu bitugu ubumaranye igihe kingana iki? \_\_\_\_\_  
(Show if it's years, months or days )  
For how long have you had Shoulder pain ?

Ububabare bw'ijosi wagize wabuha amanota angahe ku icumi? \_\_\_\_\_

Neck pain scores/ 10

---

Ububabare bw'ijosi ubumaranye igihe kingana iki?

For how long have you had neck pain ?

\_\_\_\_\_ (Show if it's years, months or days )

---

Ububabare bwo mugatuza wagize wabuha amanota angahe ku icumi?

Chest pain scores/ 10

---

Ububabare bwo mugatuza ubumaranye igihe kingana iki?

For how long have you had chest pain ?

\_\_\_\_\_ (Show if it's years, months or days )

---

Ububabare bwo mu bujana wagize wabuha amanota angahe ku icumi?

Wrist pain scores/ 10

---

Ububabare bwo mu bujana ubumaranye igihe kingana iki?

For how long have you had wrist pain?

\_\_\_\_\_ (Show if it's years, months or days )

---

Ububabare bwo mu mavi wagize wabuha amanota angahe ku icumi?

Knee pain scores/ 10

---

Ububabare bwo mu mavi ubumaranye igihe kingana iki?

For how long have you had knee pain ?

\_\_\_\_\_ (show if it's years, months or days)

---

Utekereza ko ubu bubabare bwatewe n'iki ?

What is the suspected cause of most pain reported above?

- Mining related
- Related to prior non-mining job
- Disease-related
- Unknown

---

Waba warigeze ugira imvune/uvunika kuva watangira y'agaciro?

Have you ever sustained an injury since you started working in mining?

- Yes, a work-related injury amabuye
- Yes, a non-work related injury
- No

---

Ese aho ukorera waba ugira ingaruka zo kunyeganyega kw'ingingo z'umubiri bitewe no gukoresha imashini cyangwa gukorera ahantu hari imashini zihinda cyane?

- Yes  
 No

Have you been exposed to vibration at work?

---

Niba ugirwaho ingaruka no gutitira kw'imashini z'aho mukorera, wavugako imashini zititira ku gihe kigero?

How would you rate the level of vibration?

- Ikigero gito cyane / minimal  
 Ikigero kiri mu rugero / moderate  
 Ndifashe / neutral  
 Ikigero kiri hejuru/ Severe  
 Ikigero gikabije cyane/ very severe

---

Ni ibihe bice by'umubiri wawe bigirwaho ingaruka no gutitira bitewe no guhinda kw'imashini z'aho mukorera?

What parts of your body were affected by vibration?

- Gutitira umubiri wose igihe ari jye uri gukoresha imashini / whole body  
 Gutitira kw'ukuboko gusa kuri gukoresha imashini / hands and arms