

A photograph of a worker in an orange protective suit and mask operating a high-pressure water spray system at an industrial site. The worker is standing on a metal platform, holding a long black hose. In the background, there is a large industrial structure with a red metal frame and a corrugated metal wall. The sky is clear and blue.

**Evaluation on five years of
implementing the silicosis prevention
project in Vietnam
(1999-2003)**

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Introduction

- Silicosis: common occupational disease in most countries in the world.
- WHO: prevalence among exposed-workers exposed in developing countries 21% to 54.6%
 - Thailand: stone crushers- 21%
 - S. Korea: coal miners- 9.3%
 - India: stone exploiting and processing workers- 35.2%
- April 1995, ILO&WHO promoted a policy on “global elimination of silicosis”

Introduction

- Vietnam
 - First cases found in 1970s
 - to 2003 >19,500 diagnosed cases with compensation;
~75.7% of all compensated occup. diseases



Objectives during 1999-2003

1. To establish an inter-mechanism of silicosis prevention between branches and organizations representing for employers and employees.
2. To identify silicosis cases, it's prevalence and incidence in different branches of industries
3. To provide techniques application and measures for silicosis prevention.
4. To train and re-train personnel responsible for occupational health on silicosis prevention.

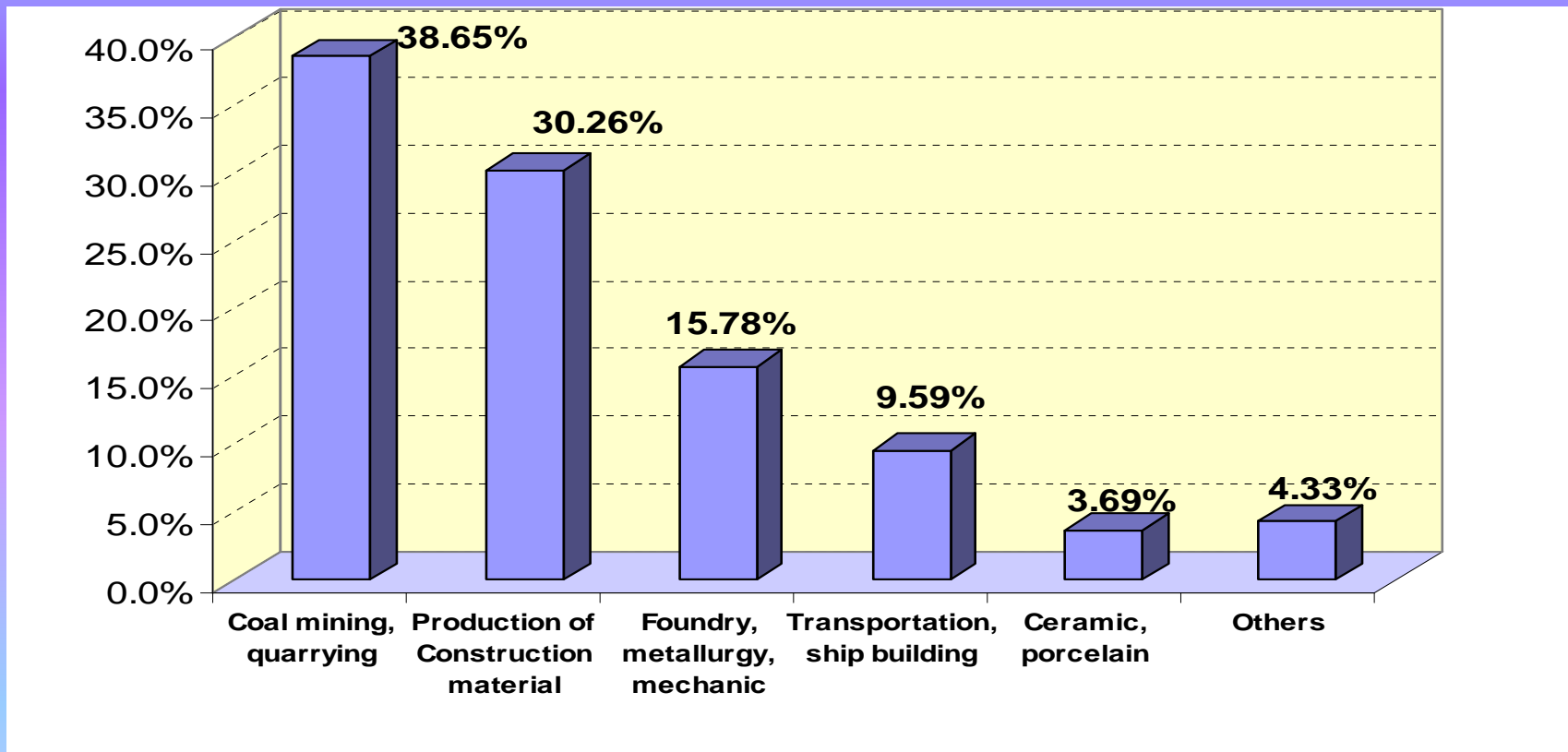
Population and Places

Project has conducted a survey at **615 workplaces** at high risk for silicosis in **45 provinces** included **138,974 workers**

Distribution of silicosis since 1976

Period	No. of examined workers	Silicosis diagnosed cases	Prevalent rate	No. of compensated cases	% of compensated cases/prevalent cases
1976-1995	7057	7057		7057	
1996-2000	58.474	6996	11.96%	4914	73.4%
2001-2003	57.621	6536	11.34%	2683	41.1%
Total	123152	20589		14654	

Distribution of exposed-workers by industry



Source: *Provincial Centers of Preventive Medicine*

Distribution of the duration of exposed-workers

Duration of exposure	Male	Female	Total	%
< 10 yrs	33607	7153	40760	59.9%
11-20 yrs	14050	5172	19222	28.2%
21-30 yrs	5699	2153	7852	11.5%
>30 yrs	206	31	237	0.35%

Results

1. Set-up an intersectional coordination mechanism:

- The Steering Committee and Task Force group established to steer committee, to transfer knowledge and to improve the work environment.
- Ministries of Transport, Defense and Industry set up their own programs named “The National Action Plan for Silicosis Prevention”. Other industries/branches such as Construction, Coal Mining, the Vietnam Chamber for Commerce and Industry and Vietnam Cooperative Alliance not following the guideline on establishment of steering committee.
- Pilot model activities for silicosis prevention implemented in major provinces/cities: Thai Nguyen, Quang Ninh, Ha Noi, Nghe An, Thua Thien-Hue, Da Nang, Khanh Hoa, Ho Chi Minh city, and Ba Ria-Vung Tau.

Environmental monitoring at workplaces

	<i>Content</i>	1999	2000	2001	2002	2003	Total
1	Nation-wide report						
1.1	No. of worksites	2,117	2,030	2,400	2,606	2,277	11,430
1.2	Total number of samples	124,248	160,558	172,876	188,709	148,675	795,066
1.3	No. of dust samples	7,971	9,469	15,847	15,703	14,147	63,137
1.4	% of dust samples exceeded TLV	20.4%	25.5%	24.7%	20.7%	23.9%	23.1%
2	Result of project's implementation						
2.1	No. of workplaces	5	6	44	35	28	118
2.2	Total number of samples	695	484	1,522	762	712	4,175
2.3	No. of dust samples	189	196	518	197	209	1.309
2.4	% of dust samples exceeded TLV	72.6%	78.6%	66.8%	55.3%	78.9%	69.61%

Results of medical surveillance on silicosis in period 1999-2003

	Content	1999	2000	2001	2002	2003	Total 5 years
1	Nation-wide report						
1.1	No. of examined workers	9540	9643	9129	24694	23708	76714
1..2	No. of silicosis diagnose cases	1932	2058	2332	2432	1772	10526
1..3	<i>Rate of Silicosis diagnoses cases /examined workers</i>	20.2%	21.3%	25.5%	9.8%	7.4%	13.7%
1.4	No. of cases confirmed by Med. Expertise Committee	970	736	717	1177	789	4389
1.5	<i>Rate of confirmed cases /diagnose silicosis cases</i>	50.2	35.7	30.7	48.4	44.5	41.7%
2	Result of project's implementation						
2.1	Lung function abnormality	9,2%	8.4%	19,4%	25.3%	21.3%	19.6%
2.2	Numbers of silicosis cases	113	62	340	191	301	1007
2.3	Rate of Silicosis case/X-ray workers	19.3%	8.3%	8.4%	8..2%	15.6%	10.5%

Prevalence and Incidence

- **Prevalence:**

- 16.75% in the shipyard building industry
- 13.74% in foundry and mechanical industry
- 8.9% among coal mining workers
- 6.96% in construction materials production and stone operating industries

- **Incidence:**

- 6.55% in workers of Mechanical Factory Z127
- 4.89% new silicosis cases found in shipyard building industry
- 0.6% in cement factories



Technical Support

- The National Institute for Labor Protection in collaboration with the National Institute of Occupational and Environmental Health were conducted a study on solutions to dust prevention and establishment of criteria for personal protective equipments.
- Silica polluted-work environment improved by different measures and communication activity



Training, education and research

Training courses in 1999-2003

Year	Health staff		Managers		Workers	
	No. of courses	No. of trainees	No. of courses	No. of trainees	No. of courses	No. of trainees
1999-2003	28	930	26	1160	16	1200
Requirement by 2005	40	1.200	100	5.000	700	35.000
Respond rate by 2003	77.5%		23.2%		3.43%	

Training, education and research (cont.)

- Research at governmental or ministry level on health situation and silicosis progress among workers in Hanoi (23.4%) and Quang Ninh (10.8%).
 - Average of duration of switching to a higher profession category was approximately 6.3 years.
 - The difficulty for most enterprises is to rearrange workplaces for silicosis-diagnosed workers.
- Studies on setting criteria for personal protective equipment were also established.
- Studies on occupational diseases and work-related accidents have been carried out in 7 industrial provinces:
 - The time needed for a silicosis case to complete all the paperwork for compensation estimated 1 year
 - The quickest at least 6 months, whereas the longest nearly 2 years

Conclusion

1. Advantages

- The project basically achieved the specific aims set up by the year 2005.
- Activities on silicosis prevention by each branch, province as well as inter-branches/provinces were well carried out and well recognized by international organizations.
- For 5 years, 4.389 workers were received the compensation for contracting silicosis.
- Perception of employees via dissemination activities on environmental safety and health was improved.
- Ability of personnel on medical surveillance, training and dissemination was improved significantly.

Conclusion (cont.)

2. Existing issues need to be solved

- Dust is still at high levels and workplaces failed to achieve the new technology that is used to control dust levels.
- Activities on dissemination and training for enterprises and their employees are limited.
- Shortcomings due to policies and law enforcement have not been resolved because of the poor co-operation between branches.
- Competence of health staffs is still limited. In addition, lack of equipment using for environmental evaluation and diagnosis of disease is a matter.
- Budget for implementation of the project is limited.