...ed at the problem of ...m the proper perspective. ... today is, in many ways, for self-discovery, a tran... which is finding outlets ...s as yoga, astrology, gurus, ...ace or culture, the m... and the interest in ...ter... religions. Every one ...many respects, expresses to the external society—par...mercialized materialism—is ...ony, and fraudulent. Be... is a search in many, many ...per reality—the quest for ...of experience that can give ...e meaning to life.

...tudent has said to me that find the professor in the ...n define his professional ...ersonal ethic. They cannot ... which they are attending its institutional ethic, let ...m in understanding of a

...rything that is Mark Hat...in that last statement. Al... is "attending" an institu... define its ethic, its pur... has defined his own place, ...al ethic. But even more ... a personal ethic, a theo... allows him to remain true ...ictions. For Mark Hatfield, God is first.

HATFIELD DOES IS FOR THE LORD" [54]

...book, *Conflict and Con...*field has collected several ...an attempt to "call into ...macy of my Christian be... of my political positions." ... political convictions are ...ences of his life's orienta... ...aptist religion, and more ...rd ... meaning of Jesus ...that ... "can come only ...cal and spiritual—are ful... ...e deals with day to day, ...overty and ecology, are ... a spiritual disease that ...d States. They are reflec... ...ow, corrupt, and warped ...nd, says the senator, it is ...tive action is not enough. ... between theology and ...tween God and Country, ...d in recent years. ... the mistake of starting ...dices or presuppositions, ... theological perspectives ... those who begin with ...gy . . . adopt a theology ... prejudices . . . theology ... our own purposes, and ...tentions."

...theology and politics are ... process, and the process ...Hatfield's eyes. He main... ...nd study must flow *from*

... those concerned chiefly ...vation; they see the pri... of the Christian as min... ...sonal problems of other ...rophets are those con... ...seeing God's purposes ...realized. They hear a call of God" to be furthered ...ncerned about the prob... ..., and social injustice." [55] ...best? Hatfield looks to ...r the answer. The need ...hets" because the pro... ...the ... es destroying our ...gle... unless there is a ...d them. "Only when one ...loved and forgiven by Christ's love can he bear the full truth of God's judgment of the world."

Hatfield criticizes the organized church for its role in Washington. "I believe churchmen should not view politicians merely as someone who has to be 'lobbied.' Rather, their aim should be to build honest personal relationships with politicians, based on true concern, love and understanding." [56] And, adds Senator Hatfield, if the church does not "open its eyes to the vision of a better society," it will "by default share in the guilt for the nightmare of a secular ideological totalitarianism." [57] The prevention of such a spiritual disaster and the fulfillment of that vision supersedes all other concerns for Mark Hatfield.

FOOTNOTES

[1] Mark Hatfield, *Not Quite So Simple* (New York: Harper and Row, 1968), p. 153.
[2] *Washington Evening Star*, March 22, 1967.
[3] Mark Hatfield, *Not Quite So Simple* (New York: Harper and Row, 1968), p. 45.
[4] *The New York Times*, July 14, 1964.
[5] Mark Hatfield, *Not Quite So Simple* (New York: Harper and Row, 1968), p. 12.
[6] Ibid, p. 22.
[7] Robert Sherill, "Hatfield: The Oregon Enigma," *The Nation* (July 17, 1967), p. 38.
[8] Interview with A. Robert Smith, reporter for the *Portland Oregonian* by Congress Project researcher on August 11, 1972.
[9] Mark Hatfield, *Not Quite So Simple* (New York: Harper and Row, 1968), p. 20.
[10] Mark Hatfield, *Not Quite So Simple* (New York: Harper and Row, 1968), p. 45.
[11] "Commission Lands in National Forests," *National Journal*, III (March 27, 1971), p. 663.
[12] Interview with Senator Mark Hatfield by Congress Project researcher on August 8, 1972. (Hereafter cited as Interview with Member.)
[13] Mark Hatfield, *Not Quite So Simple* (New York: Harper and Row, 1968), p. 155; Interview with Member.
[14] Ibid, p. 159.
[15] Ibid.
[16] Interview with Representative Robert Duncan by Congress Project researcher on July 17, 1972. (Hereafter cited as Interview with Duncan.)
[17] Mark Hatfield, *Not Quite So Simple* (New York: Harper and Row, 1968), p. 163.
[18] Interview with Duncan.
[19] *Washington Evening Star*, January 15, 1967.
[20] U.S. Congress, Senate, *Subcommittee on Public Lands of the Committee on Interior and Insular Affairs: Hearings on Management Practices on Public Lands*, 92d Cong., 2d sess., March 10, 1972, p. 1.
[21] U.S. Congress, *Congressional Record*, Senator Mark Hatfield, remarks at Forestry Hearings, Atlanta, Georgia, vol. 117, pt. 28, p. 36728.
[22] Ibid.
[23] Senate, *Committee on Interior and Insular Affairs, Hearings on Management Practices on Public Lands*, 92 Cong., 2d sess., March 10, 1972, p. 1.
[24] Ibid, pp. 59, 60.
[25] Senator Mark Hatfield, Press Release, June 12, 1972, U.S. Senate, Washington, D.C.
[26] *Digest of Public General Bills & Resolutions*, 92d Cong., 1st sess., 1971. (Washington, D.C.: Library of Congress, 1971.)
[27] Mark Hatfield, *Not Quite So Simple* (New York: Harper and Row, 1968), p. 52.
[28] *Washington Evening Star*, June 30, 1970.
[29] *The New York Times*, August 18, 1970.
[30] "Politics," *National Journal*, III (March 6, 1971), p. 538.
[31] "Hatfield Confident About 172" *Washington Evening Star*, November 26, 1971.
[32] Interview with Member.
[33] Interview with Wesley Michaelson, executive assistant to Senator Mark Hatfield by Congress Project researcher on August 1, 1972. (Hereafter cited as Interview with Michaelson.)
[34] *Congressional Record*, Senator Mark Hatfield, floor remarks on behalf of S. 18150-53, October 14, 1970.
[35] Hatfield, Press Release, July 4, 1972.
[36] J. L. Moore, "Draft, Volunteer Army Proposals Head for Showdown in Congress," *National Journal*, III (March 6, 1971), p. 489-99.
[37] "On the Issues," *Congressional Quarterly Weekly Report*, XXIX (April 2, 1971), p. 752.
[38] *Congressional Record*, Senator Mark Hatfield, floor remarks on behalf of S. 804, June 2, 1971.
[39] *Congressional Record*, Senator Mark Hatfield, floor remarks on S. 804-8026, June 2, 1971.
[40] Mark Hatfield, *Not Quite So Simple* (New York: Harper and Row, 1968), p. 69.
[41] *Congressional Record*, Senator Mark Hatfield, floor remarks on S. 8760, June 10, 1971.
[42] Mark Hatfield, *Conflict and Conscience* (Waco, Texas: World Books, 1971), p. 29.
[43] Mark Hatfield, *Not Quite So Simple* (New York: Harper and Row, 1968), pp. 174-75.
[44] Interview with Michaelson.
[45] "On the Floor," *Congressional Quarterly Weekly Report*, XXVIII (August 21, 1970), p. 2087.
[46] *Congressional Record*, Senator Mark Hatfield, floor remarks on behalf of S. 8761, June 10, 1971.
[47] *Congressional Record*, Senator Mark Hatfield, floor remarks on behalf of S. 19537, November 23, 1971.
[48] Interview with Member.
[49] *Congressional Quarterly Weekly Report*, XXIX (June 21, 1971); XXX (August 1, 1972).
[50] Interview with Member; Interview with Michaelcon.
[51] *The New York Herald Tribune*, November 24, 1963.
[52] "Financial Disclosure," *Congressional Quarterly Weekly Report*, XXVIII (May 24, 1971.)
[53] *Congressional Record*, Senator Mark Hatfield, floor remarks on behalf of S. 5445-S 1, April 9, 1970.
[54] *The New York Herald Tribune*, November 4, 1963, quoting Antoinette Hatfield.
[55] Mark Hatfield, *Conflict and Conscience*, p. 40.
[56] Senator Mark Hatfield, "Pastors, Prophets and Politicians: 159th Commencement Address," Princeton Theological Seminary, Princeton, New Jersey.
[57] Mark Hatfield, *Conflict and Conscience*, p. 73.

THE RESPIRATORY DISEASE BENEFIT ACT

Mr. TAFT. Mr. President, on February 27, I introduced S. 1029, the Respiratory Disease Benefits Act. This measure is designed to extend to thousands of industrial workers, crippled with occupationally related respiratory diseases, the same benefits which we now provide to coal miners who contract black lung. I am pleased that this measure has now been cosponsored by the Senator from Rhode Island, (Mr. PASTORE) and the Senator from Idaho (Mr. CHURCH). In analyzing this matter, a verbal presentation before the American Industrial Hygiene Association has come to my attention which I wish to commend to my colleagues. Made by Joseph K. Wagoner, S.D. Hyg., William M. Johnson, M.D., and Richard Lemen, M.S. of the National Institute for Occupational Safety and Health, it is entitled "Malignant and Nonmalignant Respiratory Disease Mortality Patterns Among Asbestos Production Workers."

Wagoner 1973

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I ask unanimous consent that this presentation be printed at this point in the RECORD.

There being no objection, the presentation was ordered to be printed in the RECORD, as follows:

MALIGNANT AND NONMALIGNANT RESPIRATORY DISEASE MORTALITY PATTERNS AMONG ASBESTOS PRODUCTION WORKERS

INTRODUCTION

There is little doubt today that occupational exposure to asbestos, under a wide variety of circumstances is causally associated with lung cancer, mesothelioma and asbestosis. To date, however, only one study has evaluated these responses in relation to the interaction between duration of exposure and interval since onset of exposure. This study, by Newhouse, is limited by the multiplicity of fiber types used in production; that is, amosite, crocidolite and chrysotile asbestos The purpose of the present epidemiological investigation was to evaluate the mortality patterns among a cohort of workers in one major asbestos manufacturing complex utilizing predominantly chrysotile asbestos in textile, friction and packing products.

METHODS

Selected for study were all individuals employed in the manufacturing of asbestos textile, friction and packing products during the period January 1, 1940 through December 31, 1962. Occupational histories were ascertained from company employment files. In an attempt to obtain a group of more manageable size, study was limited to those individuals having completed one or more years of employment.

Follow up of all study group members was attempted from the time of termination of employment to January 1, 1968, the cut-off date for analyses of these data. Vital status ascertainment was made through records maintained by Federal, state, and local government agencies including sources such as the Social Security Administration, the Internal Revenue Service and State Vital Statistics Offices. For those individuals not located through these conventional data resources, use was made of State Motor Vehicle Licensing Agencies, R. L. Polk directories, Post Office mailing correction services, and town hall voter and property tax records. As a result of this intense follow-up program, less than 6.9% of the study group were lost to observation (Table I). Death certificates were obtained for the known dead, and cause of death were interpreted according to the *Revision of the International Lists of Diseases and Causes of Death* in effect at the time of death by a qualified nosologist. Those individuals whose vital status was not ascertained were considered alive, thus making conservative any finding of increased cause-specific mortality among the study group. In addition 29 individuals who were known to have died but for whom no death certificate could be obtained were considered as deceased, cause of death undetermined.

A modified life table technique was used to obtain person-years at risk of dying by five year calendar time periods, five year age groups, number of years of employment, and number of years after start of asbestos exposure. Comparison was made between the observed risk of dying among the study cohort with that expected on the basis of age-sex-race-calendar time-cause-specific mortality rates for the general population of the United States.

RESULTS

Table 2 shows that during the period January, 1940 through December, 1967, a total of 655 deaths occurred among asbestos workers as contrasted with 520.84 expected, an excess significant at $p<.01$. The distribution of deaths is most revealing. Only one organ system complex was significantly in excess of expectation, that being the cardio-pulmonary system. This excess of deaths within the respiratory system was not specific to any one response, rather it was demonstrated both for malignancies with 46 observed versus 18.84 expected, $p<.01$ and for non-malignancies with 72 observed versus 35.02 expected, $p<.01$. Disease of the heart, which in part were secondary to pulmonary disease, i.e., cor pulmonale and congestive heart failure, were also increased among asbestos workers, with 239 deaths observed versus 202.37 expected, an excess significant at $p<.05$. Note should be made that among the 83 deaths in the all other known cause category, 16 were malignancies of the lymphatic and hematopoietic system. The etiology of these malignancies will be the subject of a separate report.

A more detailed breakdown of respiratory deaths, both malignant and non-malignant by duration of employment and time since onset of asbestos exposure is shown in Tables 3 & 4. By examination of the mortality patterns in Table 3, it may be seen that an excess of respiratory cancer occurred among asbestos workers at each duration of employment category down to and including 1-9 years. The lack of an excess respiratory cancer risk during the first nine years after onset of asbestos exposure, followed by a significant excess for each time interval beyond 10 years is not consistent with a predisposition (endogenous or exogenous) to respiratory cancer among individuals employed in the asbestos industry.

Table 4 shows that in contrast to the excessive risk demonstrated for respiratory cancer down to and including 1 to 9 years of employment, only during the period of ten or greater years of employment was non-malignant respiratory disease (pneumoconiosis) excessive. These observations do not support the speculation that excessive respiratory cancer is found only in presence of asbestosis.

Consideration must be given to the fact that some of the accumulated exposure (in this case duration of employment) is wasted or irrelevant as far as the initiation of cancer is concerned. This is so as malignant transformations do not lead to instantaneous cancer but must be transmitted over several years through the cell progeny. Analytic methods, however, used in the epidemiology of asbestos—induced cancer are unable to discriminate between the initiation dose and subsequent (wasted) exposure. In view of these concepts and the magnitude of excess risk shown in Tables 1 and 2, the prudent course of action would be to reduce asbestos exposure substantially below those levels demonstrated to be associated with malignancy.

Now that an excess of 110.73 cardio-pulmonary deaths has been observed and an association with duration of employment has been demonstrated, it seems desirable to evaluate the distribution of those malignant and non-malignant respiratory disease deaths according to interval since termination of employment. This evaluation is undertaken to shed light on the practice of respirator use in the absence of strict medical controls, during periods of excessive asbestos or other pneumoconiosis producing dust exposures.

Figure I shows the percentage of both total lung cancer and pneumoconiosis deaths according to five year intervals since termination of employment. The majority of lung cancer and of pneumoconiosis deaths occurred within five years of termination of employment. Twenty-six out of 45 lung cancer deaths and 41 out of 52 pneumoconiosis deaths occurred within this five year interval.

Table 5 shows a breakdown of those lung cancer deaths which occurred within the first five years since termination of employment. The majority (14 out of 26) of these lung cancer deaths occurred within six months following termination of employment. The average age at death of these 14 individuals was 53.4 years.

Furthermore, a breakdown of pneumoconiosis deaths which occurred within five years since termination of employment may be seen in Table 6. The majority of these respiratory deaths occurred within one year since termination of employment including 17 deaths which at an average age of 53.8 years occurred within six months of termination. Note should be made that the average age of those 41 individuals who died within five years since termination of employment was only 55.9 years.

Lung cancer and pneumoconiosis deaths which occurred within six months of the termination of employment are evaluated further according to one month intervals since termination of employment (Table 7). The majority of both lung cancer and of pneumoconiosis deaths which occurred within six months took place within three months of termination. Note that five lung cancer deaths and eight pneumoconiosis deaths occurred within one month. Cor pulmonale and congestive heart failure were noted as contributing cause of death on the death certificates of many of these individuals with pneumoconiosis whose age at death was usually less than 60 and in a few cases under 50. These data demonstrate the need for a comprehensive medical evaluation of employees who are required to wear respirators in asbestos operations with excessive exposure levels. Individuals with pulmonary function findings consistent with restrictive lung disease and with other evidence of asbestosis are at excess risk of cardio pulmonary death, and the routine use of both filter and air supplied respirators in individuals with moderate and advanced asbestosis could aggravate an already serious medical condition.

Cardio-pulmonary death within a short interval since termination of employment is not a problem limited to the past. Table 8 shows lung cancer and pneumoconiosis deaths according to time since termination of employment and decade of death. During the years 1960-67, eleven of these deaths occurred within six months since termination of employment. Asbestos-related pulmonary disease is a current problem in the asbestos products industry according to the findings of NIOSH medical surveys. A recent survey in an asbestos insulation plant demonstrated approximately a 50% prevalence of X-ray, pulmonary function, and clinical findings consistent with asbestos is among individuals with ten or more years of employment. The routine application of respirators in such an employed population is hazardous, and the need for comprehensive medical surveillance is indicated. These data provided the rationale upon which the Advisory Committee on Asbestos Standards recommended that use of respirators during periods of excessive asbestos dust be preceded by strict medical evaluation.

TABLE 1.— *Status of asbestos textile, friction and packing study cohort as of December 31, 1967*

Known to be alive	2,481
Known to be deceased	655
Death certificate obtained	626
Death certificate outstanding	29
Not known to be alive or deceased	231
Total	3,367

TABLE 2.—OBSERVED AND EXPECTED DEATHS DUE TO SELECTED CAUSES, WITH STANDARDIZED MORTALITY RATIOS AMONG WHITE ASBESTOS, TEXTILE, FRICTION AND PACKING EMPLOYEES, JANUARY 1940 THROUGH DECEMBER 1967

Cause of death	Number of deaths		SMR
	Observed	Expected	
Tuberculosis	10	10.90	92
Malignant neoplasms	117	95.82	[1] 122
Digestive system	36	29.07	124
Respiratory system	46	18.84	[2] 244
Other and unspecified	35	47.91	73
Vascular lesions affecting CNS	41	40.14	102
Diseases of the heart	239	202.37	[1] 118
Nonmalignant respiratory diseases	72	35.02	[2] 206
Cirrhosis of liver	12	10.55	114
Accidents	29	42.40	[1] 68
Suicide and homicide	23	15.81	145
All other known causes	83	70.85	117
Unknown causes	29		
Total	655	526.84	[1] 124

[1] Significant at 5 percent level.
[2] Significant at 1 percent level.

TABLE 3.—OBSERVED AND EXPECTED RESPIRATORY CANCER DEATHS ACCORDING TO DURATION OF EMPLOYMENT AND TIME SINCE ONSET OF EMPLOYMENT AMONG WHITE ASBESTOS, TEXTILE, FRICTION AND PACKING EMPLOYEES, JANUARY 1940 THROUGH DECEMBER 1967

Time since onset of employment (years)	Duration of employment (years)									
	1 to 9		10 to 19		20 to 29		30 and over		Total	
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected
1 to 9	3	2.75							3	2.75
10 to 19	5	2.78	6	3.21					11	5.99
20 to 29	6	2.95	5	1.01	10	3.04			21	7.00
30 and over	1	.47	3	.61	3	.80	3	1.85	10	3.74
Total	15	8.96	14	4.83	13	3.83	3	1.85	45	19.47

TABLE 4.—OBSERVED AND EXPECTED NONMALIGNANT RESPIRATORY DEATHS (LESS INFLUENZA AND PNEUMONIA) ACCORDING TO DURATION OF EMPLOYMENT AND TIME SINCE ONSET OF EMPLOYMENT AMONG WHITE ASBESTOS, TEXTILE, FRICTION AND PACKING EMPLOYEES

Time since onset of employment (years)	Duration of employment (years)									
	1 to 9		10 to 19		20 to 29		30 and over		Total	
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected
1 to 9	2	4.49							2	4.49
10 to 19	3	3.45	14	4.09					17	7.54
20 to 29	1	2.51	4	1.34	13	3.05			18	6.90
30 and over	1	0.46	4	0.49	9	1.00	12	1.08	26	3.03
Total	7	10.91	22	5.92	22	4.05	12	1.08	63	21.96

TABLE 5.—LUNG CANCER (162.1 AND 163X) DEATHS AMONG ASBESTOS WORKERS

Time since termination of employment	Deaths		
	Number	Percent	Average age
Less than 6 months	14	53.8	53.4
6 months to 1 year	5	19.2	51.0
1 to 2 years	3	11.5	60.1
2 to 5 years	4	15.5	76.6
Total	26	100.0	60.3

Note: Male—23; female—3.

TABLE 6.—PNEUMOCONIOSIS (523X) DEATHS AMONG ASBESTOS WORKERS

Time since termination of employment	Deaths		
	Number	Percent	Average age
Less than 6 months	17	41.5	53.8
6 months to 1 year	8	19.5	53.7
1 to 2 years	9	21.9	58.1
2 to 5 years	7	17.1	57.8
Total	41	100.0	55.9

Note: Male—33; female—8.

TABLE 7.—LUNG CANCER AND PNEUMOCONIOSIS DEATHS AMONG ASBESTOS WORKERS

Interval since termination of employment (months)	Deaths			
	Lung cancer		Pneumoconiosis	
	Number	Percent	Number	Percent
Less than 1	5	35.7	8	47.1
1 to 2	0	0	0	0
2 to 3	4	28.6	4	23.5
3 to 4	1	7.1	3	17.6
4 to 5	2	14.3	1	5.9
5 to 6	2	14.3	1	5.9
Total	14	100.0	17	100.0

TABLE 8.—LUNG CANCER AND PNEUMOCONIOSIS DEATHS ACCORDING TO TIME SINCE TERMINATION OF EMPLOYMENT AND DECADE OF DEATH AMONG ASBESTOS, TEXTILE, FRICTION, AND PACKING EMPLOYEES

Time since termination of employment	1940–49	1950–59	1960–67	Total number	Percent
Less than 6 months	9	11	11	31	32.0
6 months to 11 months	3	7	3	13	13.4
1 to 2 years	2	4	6	12	12.4
2 to 5 years	3	3	5	11	11.3
5 years and greater	1	17	12	30	30.9
Total number	18	42	37	97	
Percent	18.6	43.3	38.1		100.0

REMARKS OF SENATOR HUMPHREY BEFORE THE NATIONAL LEAGUE OF CITIES/CONFERENCE OF MAYORS

Mr. HUMPHREY. Mr. President, on March 6, 1973, I had the honor to address the National League of Cities/Conference of Mayors legislative meeting.

In that speech, I ask the mayors to join with me in preventing an Era of Domestic Retreat. For, to me, that is what the Nixon administration's new budget represents.

I told the mayors that I would introduce a National Priorities Resolution—to place the Congress on record favoring cutting wasteful military programs, closing tax loopholes, and devoting these resources so saved to pressing domestic needs.

Mr. President, I ask unanimous consent that my address be printed in the RECORD at this point.

There being no objection, the remarks were ordered to be printed in the RECORD, as follows:

REMARKS BY SENATOR HUBERT H. HUMPHREY

Just one month ago, the President of the United States sent his budget to Congress. A budget of $268.7 billion.