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CONCENTRATION OF BLOOD LEAD IN THREE NORWEGIAN TOWNS. PREDICTED VERSUS OBSERVED VALUES

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SUMMARY

The Royal Norwegian Council for Scientific and Industrial Research (Committee for Toxic Compounds in the Environment) gave financial support to a model validation program for estimating lead in blood in the population of three Norwegian towns. A compartment model developed by the Norwegian Institute for Air Research (NILU) calculates the concentration of lead in blood in population subgroups that differ in lifestyle. Calculated values were to be compared to concentrations measured in the field in Sørumsand, Holmestrand and Oslo-Nydalen. This report summarizes this comparison.

The aim of this study was to test a compartment model developed at this institute by comparing observed versus predicted values in different population subgroups.

The compartment model was run for Holmestrand and Sørumsand both in 1983 (before the opening of a tunnel that improved traffic conditions in the town) and in 1984, in addition to the Oslo-Nydalen area (surrounding an iron smelter).

In the model, certain parameters must be individually adjusted for each town, these are:

- definitions of microenvironments and lead concentrations in each of them.
- time spent by each population subgroup in each microenvironment.
- some of the physiological parameters.

The model was run using the constants for retention of lead in the lungs and absorption of lead from the gastrointestinal tract as indicated in Table 1. The coefficients were found in the literature. There is scientific evidence that supports increased lead retention in smokers.

The predicted values were satisfactory in adult women, slightly low for adult men, much too low for pensionists (probably reflects the models inability to account for transport of lead from bone to blood) and too high in children (which may also reflect the models inability to account for transfer from blood to bone) (Table 2). One must therefore be careful in using the model for children and the elderly.

Table 1: Coefficients used for lung retention and gastrointestinal absorption (%) when predicting values of blood in different population subgroups.

	Lung retention		Gastrointestinal absorption
	Holmestrand	Oslo-Nydalen and Sørumsand	
Adult men			
Non-smokers	50	35	15
Smokers	75	55	15
Adult women			
Non-smokers	50	35	15
Smokers	75	55	15
Pensionists			
Non-smokers	60	35	15
Smokers	85	55	15
Children			
Not exposed to passive smoking	50	50	15
Exposed to passive smoking	85	85	15

Table 2: Measured and predicted values of blood lead (µg/dl) in different population subgroups.

	Adult men		Adult women		Pensionists		Children	
	Non-smokers	Smokers	Non-smokers	Smokers	Non-smokers	Smokers	Not exposed to passive smoking	Exposed to passive smoking
Sørumsand 1983								
Measured	6.1	6.3	4.6	3.7	4.6	7.5	4.7	NA
Predicted	4.6	4.8	5.0	5.2	3.1	2.4	9.2	NA
Holmestrand 1983								
Measured	8.3	NA	5.6	7.6	6.8	8.4	7.2	12.5
Predicted	6.4	NA	6.5	7.1	3.9	3.2	10.0	12.3
Sørumsand 1984								
Measured	6.2	7.0	4.4	3.2	3.1	NA	4.4	NA
Predicted	3.4	3.5	3.6	3.8	2.3	NA	6.8	NA
Holmestrand 1984								
Measured	6.4	9.3	7.3	8.2	4.8	3.7	7.2	8.8
Predicted	3.6	5.7	5.0	6.0	2.8	2.5	7.2	8.7
Oslo-Nydalen								
Measured	6.3	7.0	4.9	5.6	8.4	11.3	6.2	6.2
Predicted	5.4	6.0	6.1	6.6	3.9	3.3	9.2	10.5

NA: Not applicable since there were no individuals in this category.

SAMMENDRAG

Norsk institutt for luftforskning (NILU) har utarbeidet en kompartmentmodell som estimerer konsentrasjonene av bly i blod i forskjellige befolkningsgrupper. Det var ønskelig å teste modellberegningene. Verdier av bly i blod målt hos barn og voksne i Holmestrand, Sørumsand og Oslo-Nydalen er brukt for å teste modellen.

Prosjektets mål er å sammenligne målte og beregnete verdier av bly i blod hos noen befolkningsgrupper i Holmestrand, Sørumsand og Oslo-Nydalen for å kunne teste den utviklete kompartmentmodellen.

Kompartmentmodellen var kjørt for Holmestrand og Sørumsand både i 1983 og i 1984 (før/etter at tunnelen åpnet), i tillegg til Oslo-Nydalen. De parametre som må justeres for hver by er:

- definisjon av mikromiljøer (ca. 30),
- tidsforbruk for hver av befolkningsgruppene i hver av mikromiljøene,
- konsentrasjonen av bly i luft i hver av mikromiljøene,
- noen av de fysiologiske parametrene.

De beregnete verdiene av bly i blod ble sammenlignet med verdiene målt i noen av befolkningsgruppene (tabell 2). Det var også mulig å sammenligne beregnete og målte verdier av eksponering for bly i luft.

Modellen ble kjørt med koeffisienter for absorpsjon fra fordøyelsesorganer og retensjon i lungen som vist i tabell 1. Disse koeffisientene var funnet i litteraturen. Det er vitenskapelig dekning for økt retensjon hos røykere.

De beregnete verdiene var tilfredsstillende for voksne kvinner. De (beregnete verdiene) var litt for lave for voksne menn og for høye for barn. Verdiene beregnet for pensjonister var altfor lave, noe som mest sannsynlig skyldes at modellen ikke tar hensyn til overføring av bly fra bein til blod, noe som er mest aktuelt hos de eldre (tabell 2).

Modellen er tilfredsstillende for beregning av verdier hos voksne menn og kvinner. Det må tas forbehold ved bruk av den for eldre mennesker. Ved bruk av beregningsmetoden for barn må verdiene tolkes forsiktig.

Tabell 1: Antatte koeffisienter brukt for retensjon i lungene og absorpsjon fra fordøyelsesorganene hos de forskjellige befolkningsgruppene.

	Retensjon i lungene		Absorpsjon fra fordøyelses-organene
	Holmestrand	Oslo-Nydalen og Sørumsand	
Voksne menn			
Ikke-røykere	50	35	15
Røykere	75	55	15
Voksne kvinner			
Ikke-røykere	50	35	15
Røykere	75	55	15
Pensjonister			
Ikke-røykere	60	35	15
Røykere	85	55	15
Barn			
Ikke utsatt for passiv røyking	50	50	15
Utsatt for passiv røyking	85	85	15

Tabell 2: Målte og beregnete verdier av bly i blod (µg/dl) hos flere befolkningsgrupper.

	Voksne menn		Voksne kvinner		Pensjonister		Barn	
	Ikke-røykere	Røykere	Ikke-røykere	Røykere	Ikke-røykere	Røykere	Ikke eksponert for passiv røyking	Eksponert for passiv røyking
Sørumsand 1983								
Målt	6.1	6.3	4.6	3.7	4.6	7.5	4.7	NA
Beregnet	4.6	4.8	5.0	5.2	3.1	2.4	9.2	NA
Holmestrand 1983								
Målt	8.3	NA	5.6	7.6	6.8	8.45	7.2	12.5
Beregnet	6.4	NA	6.5	7.1	3.9	3.2	10.0	12.3
Sørumsand 1984								
Målt	6.2	7.0	4.4	3.2	3.1	NA	4.4	NA
Beregnet	3.4	3.5	3.6	3.8	2.3	NA	6.8	NA
Holmestrand 1984								
Målt	6.4	9.3	7.3	8.2	4.8	3.7	7.2	8.8
Beregnet	3.6	5.7	5.0	6.0	2.8	2.5	7.2	8.7
Oslo-Nydalen								
Målt	6.3	7.0	4.9	5.6	8.4	11.3	6.2	6.2
Beregnet	5.4	6.0	6.1	6.6	3.9	3.3	9.2	10.5

NA: "Not Applicable", siden ingen av personene i undersøkelsen inngikk i denne kategori.

CONTENTS

CONCENTRATION OF BLOOD LEAD IN THREE NORWEGIAN TOWNS PREDICTED VERSUS OBSERVED VALUES

1 INTRODUCTION

In 1981 to 1983 in Sarpsborg and Fredrikstad, the Norwegian Institute for Air Research (NILU) used a compartment model to estimate the concentration of lead in blood in population subgroups in the region (Sivertsen, 1985). This model also estimated how many people in a geographic region have blood lead concentrations over a given value. Such a model is of obvious value in planning and judging the results of initiating changes that are meant to improve the environment and thus peoples health.

It was desirable to test this model using measured field values of lead in blood in different population subgroups. In 1983 and 1984, NILU performed field studies in three Norwegian towns. The concentration of lead in blood in adult men and women and in children were measured.

In Holmestrand, a traffic light caused substantial traffic build-ups. A tunnel was built in 1983 removing this traffic. Blood lead concentrations were measured in inhabitants of Holmestrand before the opening of the tunnel in 1983 and again in the same individuals one year later. Blood lead concentrations were also measured in inhabitants of Sørumsand, a "control town", where there was little through traffic and no industrial sources. The final field study was in the Nydalen area of Oslo surrounding an iron smelter (Clench-Aas et al., 1984, 1986 and 1989).

These studies were applied to test the performance of the compartment model against air and blood lead concentrations measured in the field.

2 DESCRIPTION OF THE FIELD STUDY

In 1983, a series of studies were organized by the Norwegian Institute for Air Research in collaboration with the Institute for Occupational Health and the local health departments of three towns, Oslo-Nydalen, Holmestrand and Sørumsand, to investigate the relationship of inhalation of air lead to blood lead concentrations.

The studies were conducted at three sites:

1) Oslo-Nydalen - a part of Oslo traversed by a major throughway (ca. 30 000 vehicles daily) and having two point sources of industrial lead emissions.

2) Holmestrand - a town traversed by a major throughway (at the time of measurement, 11 000 vehicles daily, through a city-canyon) where the traffic is stopped by a light. In 1983 a tunnel was opened that caused the traffic to bypass the town.

3) Sørumsand - a small town having very little traffic (at the time of measurement estimated at 3 000 cars daily) and no industrial sources of airborne lead.

Sample size in Holmestrand and Sørumsand in 1983 was 178 and 125 respectively. This sample size was reduced by 20% in 1984. The population sampled varied in age from 3 to 91 years. In Oslo-Nydalen, 470 people (ranging in age from 2 to 98 years) volunteered for the study.

One of the unique features of these studies was the experimental design. For each individual a specific blood lead concentration was related to an estimate of that individual´s own exposure to ambient lead during the two weeks prior to blood sampling.

Individual air lead exposure was estimated by combining information from diaries of weekly patterns of activity (hours per day spent in each of several microenvironments, such as indoor at home, indoor at work or school, outdoors at home, etc.) with both measured and estimated ambient lead concentrations. Air lead was measured at two sites each in Holmestrand and Sørumsand and five sites in Oslo-Nydalen for one month. Blood and air lead for each individual was measured by electrothermal atomic absorption spectometry. The questionnaire included information on: additional lead exposure via hobbies, occupation, and smoking (both active and passive), and 2) other socio-economic parameters such as alcohol consumption, use of vitamins and iron supplements, etc. that could influence metabolism.

3 DESCRIPTION OF THE COMPARTMENT MODEL

The compartment model, developed and used in the Sarpsborg and Fredrikstad area, estimates blood lead concentrations in different population subgroups. It also estimates that portion of the blood lead concentration that originates from inhalation and that portion that originates from food ingestion. The method is based on a path model where each box is in steady state with its neighboring boxes having a defined flux coefficient (Figures 1 and 2). In the steady state or equilibrium situation, the rates of pollutants entering and leaving a compartment are equal, and the concentration of the pollutant in the reference compartment does not change with time. The primary path components are air, soil, water, then vegetation and animals that then enter the lung or digestive system to end up in the blood. The mathematical details of the model are described in Sivertsen, 1985.

Some of the primary ingredients of the model are given in the following list:

STEADY STATE CONCENTRATION IN SOIL
LEAF SURFACE
SOIL SURFACE
STEADY STATE FLUX AIR-SOIL
RESIDENCE TIME(OF LEAD)IN SOIL
MIXING DEPTH IN SOIL
DENSITY OF SOIL
DEPOSITION VELOCITY TO SOIL
STEADY STATE CONCENTRATION IN PLANT A, FROM SOIL
STEADY STATE CONCENTRATION IN DIET A, FROM SOIL

STEADY STATE CONCENTRATION IN GI-TRACT
STEADY STATE CONCENTRATION IN BLOOD FROM DIET A
STEADY STATE FLUX SOIL - PLANTS (ROOTS),DIET A
STEADY STATE FLUX ROOTS - DIET (DIET A)
STEADY STATE FLUX DIET A - GI TRACT
STEADY STATE FLUX GI-TRACT TO BLOOD OF DIET A
RESIDENCE TIME OF LEAD IN BLOOD
BLOOD VOLUME
DEPOSITION VELOCITY TO LEAF SURFURCE
STEADY STATE FLUX AIR-PLANT SURFACE
STEADY STATE FLUX PLANT-DIET
RESIDENCE TIME OF PB ON GRAIN
PRODUCTION OF GRAIN PR.M2
DEP.VELOCITY TO FRUIT, BERRIES
RESIDENCE TIME OF PB ON VEGETABLE
PRODUCTION FRUIT/BERRIES PR.M2
RESIDENCE TIME OF PB ON VEGETABLE
RETENSION OF LEAD INHALED INTO PULMONARY REGIONS OF LUNG
BREATHING RATE FACTOR
ABSORPTION OF INGESTED PB INTO BLOOD
INTAKE OF FOOD NOT INCLUDED IN COMPONENT MODEL
FRACTIONS LEAD INTO LUNG ABSORBED IN BLOOD
TIME SPENT IN EACH ENVIRONMENT
(LUNG VENTILATION) BREATHING RATE
CONSUMPTION POTATO
CONSUMPTION GRAIN
CONSUMPTION FRUIT/BERRIES
CONSUMPTION MEAT
CONSUMPTION MILK
CONSUMPTION SURFACE VEGETABLES
NUMBER OF PERSONS IN EACH POPULATION SUBGROUP

3.1 EXPOSURE TO LEAD THROUGH FOOD INGESTION

As can be seen in the above list and in Figures 1 and 2, foods are divided into food types and the transfer of lead from one box to the next is then calculated. In our testing of the model it was assumed that all three towns had the same food source, and thus that concentrations acquired through food ingestion were alike. The primary food categories are grain, fruit, meat, dairy products, potatoes and other root vegetables, surface vegetables and fish. Levels of lead in each of these food types is multiplied by the consumption per day and then summed up over all food types. The details of the calculations and the flux coefficients are all given in Sivertsen, 1985.

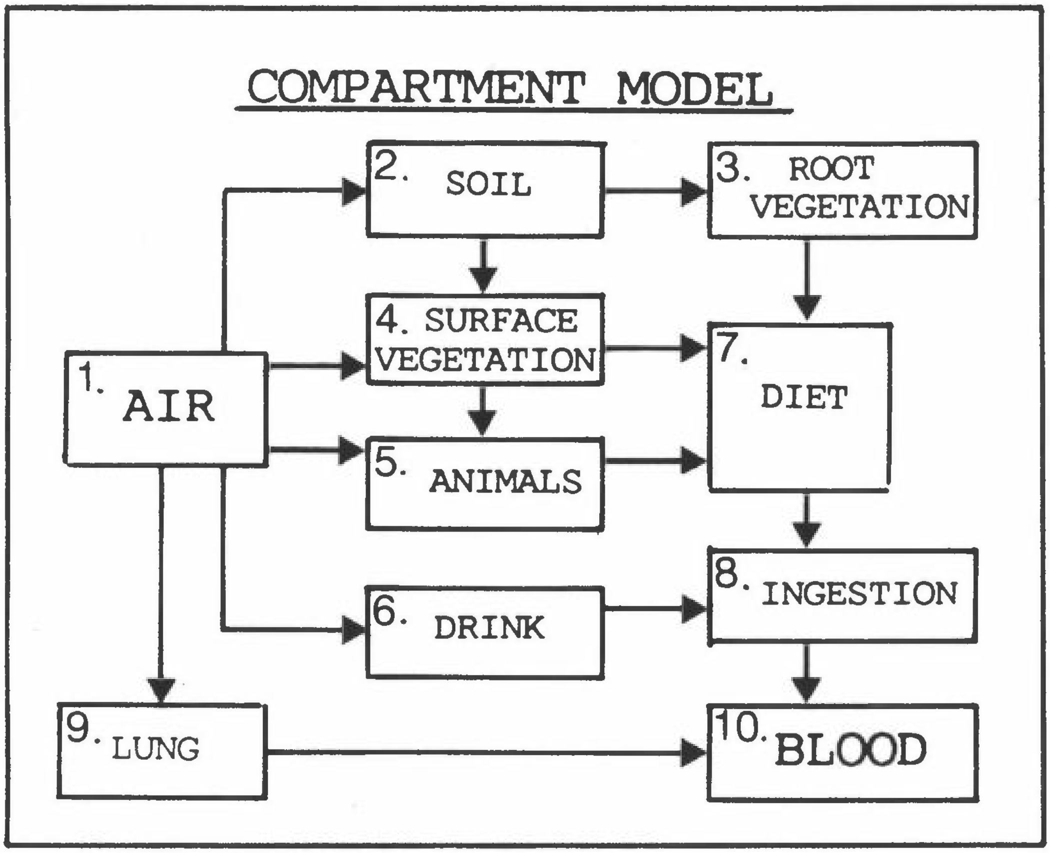

Figure 1: A simplified box model to calculate the concentration of lead entering the blood via different pathways.

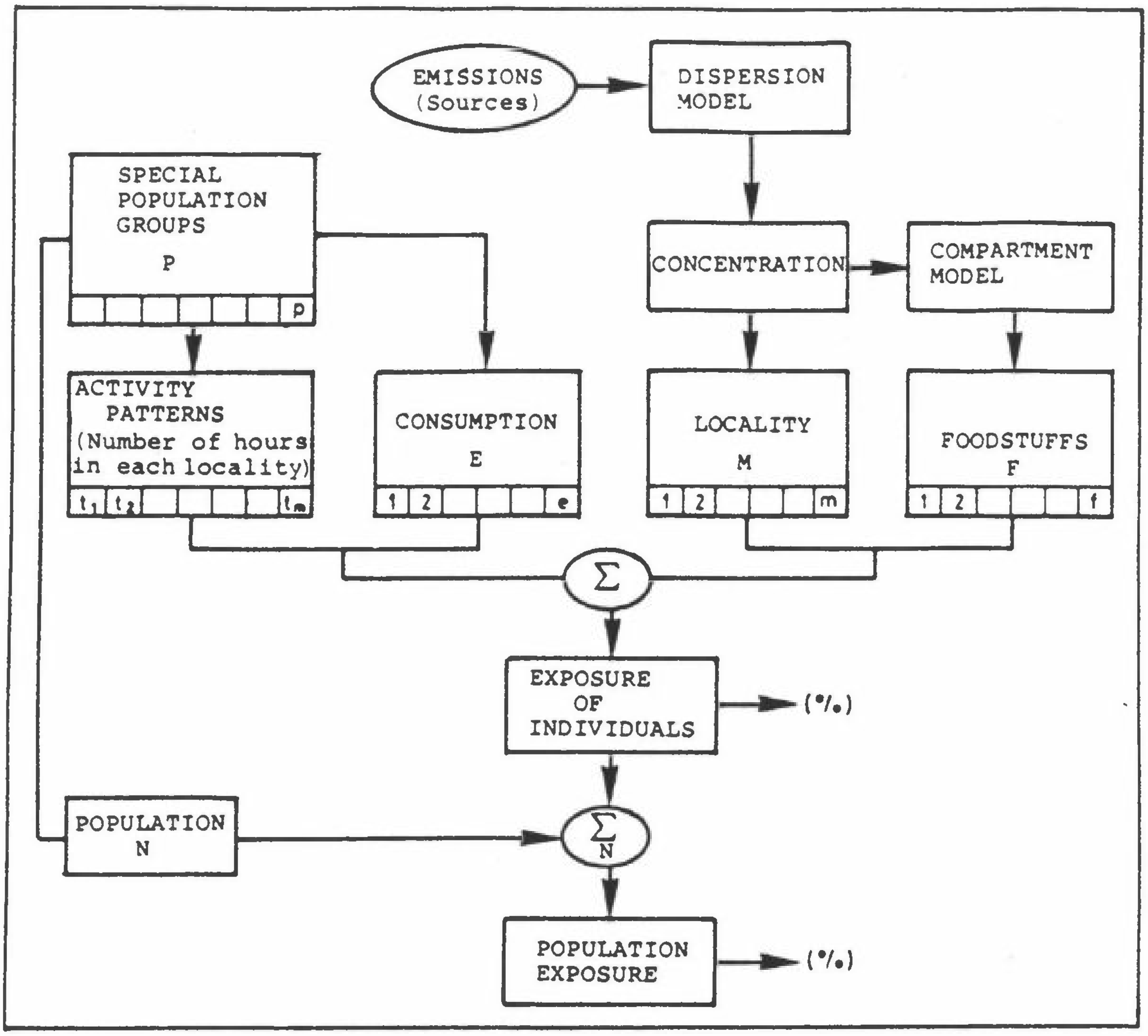

Figure 2: Method of calculating individual exposure to air lead.

3.2 EXPOSURE TO LEAD THROUGH INHALATION

The amount of lead in blood that results from inhalation of polluted air is calculated on the same principles as those used in calculating the burden coming from food ingestion. Lifestyles of each population subgroup together with estimated lead concentrations in different microenvironments outdoors and indoors is used in estimating the portion of blood lead concentrations coming from inhalation.

Population subgroups were defined for each town as described in Tables 1 and 2.

Table 1: Abbreviations used in defining population subgroups in Holmestrand and Sørumsand.

1. PERSONAL:
(A - ADULT)
B - BABY (<5 YEARS)
C - CHILD (5-16 YEARS)
R - RETIRED

2. SEX:
X - MALE
Y - FEMALE

3. SMOKING HABITS:
M - SMOKER (PASSIVE SMOKING IN CHILDREN)
N - NON SMOKER

4. OCCUPATION:
U - UNEMPLOYED
E - HOLMESTRAND CENTER
F - HOLMESTRAND SUBURBAN
O - HOLMESTRAND RESIDENTIAL AND SØRUMSAND
S - SCHOOL
D - LEAD EXPOSED INDUSTRY

5. LIVING:
I - HOLMESTRAND CENTER
J - HOLMESTRAND SUBURBAN
K - HOLMESTRAND RESIDENTIAL AND SØRUMSAND

6. SPECIALTIES:
L - JOGGING ALONG ROADS
H - ONLY INDOOR
P - COMMUTING MORE THAN 20 MINUTES

Table 2: Abbreviations used in defining populations subgroups in Oslo-Nydalen.

1. PERSONAL:
(A - ADULT)
B - BABY (<5 YEARS)
C - CHILD (5-16 YEARS)
R - RETIRED

2. SEX:
X - MALE
Y - FEMALE

3. SMOKING HABITS:
M - SMOKER (PASSIVE SMOKING IN CHILDREN)
N - NON SMOKER

4. OCCUPATION:
U - UNEMPLOYED
E - OSLO CENTER AND OSLO-NYDALEN CENTER
F - OSLO-NYDALEN SUBURBAN
O - OSLO-NYDALEN RESIDENTIAL
S - SCHOOL
D - LEAD EXPOSED INDUSTRY

5. LIVING:
I - OSLO CENTER AND OSLO-NYDALEN CENTER
J - OSLO-NYDALEN SUBURBAN
K - OSLO-NYDALEN RESIDENTIAL

6. SPECIALTIES:
L - JOGGING ALONG ROADS
H - ONLY INDOOR
P - COMMUTING MORE THAN 20 MINUTES

These are combined so that for example XNDJ is an adult man, living in suburban Oslo-Nydalen working at the factory and is a non-smoker.

The amount of time each population subgroup spends in each of 30 microenvironments is estimated. The microenvironments and their concentration of air lead used in this study are those given in Tables 3 to 5. Air lead concentration were directly measured, outdoors, indoors in smoking and non-smoking homes and in cars (Clench-Aas et al., 1986). The remaining coefficients were those used by Sivertsen in 1985.

Table 3: Definition and concentrations of lead ($\mu g/m^3$) in air in the thirty microenvironments used in this study. Values are those used in Holmestrand and Sørumsand in 1983.

ENVIRONMENT TYPE:	
CSA(1)- CITY SIDEWALK LOW POLL	.070
CSA(2)- CITY SIDEWALK MEDIUM POLL.	.300
CSA(3)- CITY SIDEWALK HIGH POLL.	.600
CSA(4)- SUBURBAN SIDEWALK	.300
CSA(5)- SUBURBAN MEDIUM POLL.AREA	.200
CSA(6)- SUBURBAN OPEN AREA, LOW POLL.	.070
CSA(7)- RESIDENTIAL "POLLUTED"	.030
CSA(8)- RESIDENTIAL CLEAN	.030
CSA(9)- ALONG HIWAY <10M	.400
CSA(10)- ALONG HIWAY 10-50M	.200
CSA(11)- ALONG SMALL ROAD <10M	.072
CSA(12)- INDUSTRIAL AREA LOW POLL.	.110
CSA(13)- INDUSTRIAL AREA MEDIUM POLL	.120
CSA(14)- INDUSTRIAL AREA HIGH POLL.	.201
CSA(15)- BACKGROUND AREA	.030
CSA(16)- NONSMOKERS HOME IN CITY	.150
CSA(17)- NONSMOKERS HOME SUBURBAN	.100
CSA(18)- NONSMOKERS HOME RESIDENTIAL	.015
CSA(19)- SMOKERS HOME IN CITY	.170
CSA(20)- SMOKERS HOME SUBURBAN	.120
CSA(21)- SMOKERS HOME RESIDENTIAL	.020
CSA(22)- STORE/RESTAURANT	.222
CSA(23)- PARKING GARAGE	2.022
CSA(24)- WORK PLACE HOLM. RESID. & SØRUM.	.100
CSA(25)- WORK PLACE HOLM. SUBURB.	1.100
CSA(26)- WORK PLACE HOLM. CENTER	2.100
CSA(27)- WORK PLACE IN LEAD EXPOSED INDUST	5.100
CSA(28)- PRIVATE CAR	2.000
CSA(29)- BUS/TRAIN	.700
CSA(30)- BICYCLE	2.000

CITY = HOLMESTRAND CENTER
SUBURBAN = HOLMESTRAND SUBURBAN
RESIDENTIAL = HOLMESTRAND RESIDENTIAL AND SØRUMSAND

Table 4: Definition and concentrations of lead ($\mu g/m^3$) in air in the thirty microenvironments used in this study. Values are those used in Holmestrand and Sørumsand in 1984.

ENVIRONMENT TYPE:	
CSA(1)- CITY SIDEWALK LOW POLL	.070
CSA(2)- CITY SIDEWALK MEDIUM POLL.	.200
CSA(3)- CITY SIDEWALK HIGH POLL.	.400
CSA(4)- SUBURBAN SIDEWALK	.120
CSA(5)- SUBURBAN MEDIUM POLL.AREA	.070
CSA(6)- SUBURBAN OPEN AREA, LOW POLL.	.050
CSA(7)- RESIDENTIAL "POLLUTED"	.020
CSA(8)- RESIDENTIAL CLEAN	.020
CSA(9)- ALONG HIWAY <10M	.300
CSA(10)- ALONG HIWAY 10-50M	.150
CSA(11)- ALONG SMALL ROAD <10M	.070
CSA(12)- INDUSTRIAL AREA LOW POLL.	.100
CSA(13)- INDUSTRIAL AREA MEDIUM POLL	.120
CSA(14)- INDUSTRIAL AREA HIGH POLL.	.201
CSA(15)- BACKGROUND AREA	.020
CSA(16)- NONSMOKERS HOME IN CITY	.100
CSA(17)- NONSMOKERS HOME SUBURBAN	.030
CSA(18)- NONSMOKERS HOME RESIDENTIAL	.010
CSA(19)- SMOKERS HOME IN CITY	.120
CSA(20)- SMOKERS HOME SUBURBAN	.050
CSA(21)- SMOKERS HOME RESIDENTIAL	.012
CSA(22)- STORE/RESTAURANT	.222
CSA(23)- PARKING GARAGE	1.900
CSA(24)- WORK PLACE HOLM. RESID. & SØRUM.	.129
CSA(25)- WORK PLACE HOLM. SUBURB.	1.100
CSA(26)- WORK PLACE HOLM. CENTER	2.100
CSA(27)- WORK PLACE IN LEAD EXPOSED INDUST	5.100
CSA(28)- PRIVATE CAR	1.200
CSA(29)- BUS/TRAIN	.500
CSA(30)- BICYCLE	1.200

CITY = HOLMESTRAND CENTER
SUBURBAN = HOLMESTRAND SUBURBAN
RESIDENTIAL = HOLMESTRAND RESIDENTIAL AND SØRUMSAND

Table 5: Definition and air lead concentration ($\mu g/m^3$) in the thirty microenvironments used in the study. The values are those used in Oslo-Nydalen.

ENVIRONMENT TYPE:	
CSA(1)- CITY SIDEWALK LOW POLL	.240
CSA(2)- CITY SIDEWALK MEDIUM POLL.	.450
CSA(3)- CITY SIDEWALK HIGH POLL.	.700
CSA(4)- SUBURBAN SIDEWALK	.500
CSA(5)- SUBURBAN MEDIUM POLL.AREA	.400
CSA(6)- SUBURBAN OPEN AREA, LOW POLL.	.300
CSA(7)- RESIDENTIAL "POLLUTED"	.200
CSA(8)- RESIDENTIAL CLEAN	.200
CSA(9)- ALONG HIWAY <10M	.700
CSA(10)- ALONG HIWAY 10-50M	.350
CSA(11)- ALONG SMALL ROAD <10M	.172
CSA(12)- INDUSTRIAL AREA LOW POLL.	.150
CSA(13)- INDUSTRIAL AREA MEDIUM POLL	.300
CSA(14)- INDUSTRIAL AREA HIGH POLL.	.700
CSA(15)- BACKGROUND AREA	.020
CSA(16)- NONSMOKERS HOME IN CITY	.340
CSA(17)- NONSMOKERS HOME SUBURBAN	.150
CSA(18)- NONSMOKERS HOME RESIDENTIAL	.100
CSA(19)- SMOKERS HOME IN CITY	.360
CSA(20)- SMOKERS HOME SUBURBAN	.170
CSA(21)- SMOKERS HOME RESIDENTIAL	.120
CSA(22)- STORE/RESTAURANT	.222
CSA(23)- PARKING GARAGE	1.900
CSA(24)- WORKING PLACE OFFICE/SCHOOL	.120
CSA(25)- WORKING PLACE WORK SHOP	.150
CSA(26)- WORKING PLACE INDUSTRY	.400
CSA(27)- WORKING PLACE POLL.INDUSTRY	5.100
CSA(28)- PRIVATE CAR	1.200
CSA(29)- BUS/TRAIN	.500
CSA(30)- BICYCLE	1.200

In addition, it is necessary to estimate a breathing rate for each environment. These are given in Table 6.

Table 6: The breathing rate factor used for each of the thirty micro-environments.

ENVIRONMENT TYPE:	
CSA(1)- CITY SIDEWALK LOW POLL	1.5
CSA(2)- CITY SIDEWALK MEDIUM POLL.	1.5
CSA(3)- CITY SIDEWALK HIGH POLL.	1.5
CSA(4)- SUBURBAN SIDEWALK	1.5
CSA(5)- SUBURBAN MEDIUM POLL.AREA	1.5
CSA(6)- SUBURBAN OPEN AREA, LOW POLL.	1.5
CSA(7)- RESIDENTIAL "POLLUTED"	1.5
CSA(8)- RESIDENTIAL CLEAN	1.5
CSA(9)- ALONG HIWAY <10M	1.5
CSA(10)- ALONG HIWAY 10-50M	1.5
CSA(11)- ALONG SMALL ROAD <10M	1.5
CSA(12)- INDUSTRIAL AREA LOW POLL.	1.5
CSA(13)- INDUSTRIAL AREA MEDIUM POLL	1.5
CSA(14)- INDUSTRIAL AREA HIGH POLL.	1.5
CSA(15)- BACKGROUND AREA	1.0
CSA(16)- NONSMOKERS HOME IN CITY	0.8
CSA(17)- NONSMOKERS HOME SUBURBAN	0.8
CSA(18)- NONSMOKERS HOME RESIDENTIAL	0.8
CSA(19)- SMOKERS HOME IN CITY	0.8
CSA(20)- SMOKERS HOME SUBURBAN	0.8
CSA(21)- SMOKERS HOME RESIDENTIAL	0.8
CSA(22)- STORE/RESTAURANT	1.0
CSA(23)- PARKING GARAGE	1.0
CSA(24)- WORKING PLACE OFFICE/SCHOOL	1.0
CSA(25)- WORKING PLACE WORK SHOP	1.0
CSA(26)- WORKING PLACE INDUSTRY	1.0
CSA(27)- WORKING PLACE POLL.INDUSTRY	1.0
CSA(28)- PRIVATE CAR	1.0
CSA(29)- BUS/TRAIN	1.0
CSA(30)- BICYCLE	3.0

3.3 CHOICE OF VALUES FOR PHYSIOLOGICAL PARAMETERS USED

It was necessary to assume certain physiological constants in order to run the model. The values used for these constants was found in the literature as follows (summarized in Table 7):

Gastrointestinal absorption

Gastrointestinal absorption has been found to vary from 10 to 15% in adults. We used values of 15% in this study since the value has appeared more often in more recent literature. Values as high as 50% have been reported in children (EPA, 1987). However, these are for younger children than we had in this study. Therefore we retained values of 15% for children as well. We used values of 20% for babies, however, we did not have any babies to test this model with.

Retention of lead in the lungs

Lead retention values for adults vary from 30 to 50% dependent on particle size (EPA, 1987). Values for smokers are substantially higher (55%) than for non-smokers (35%) (Camner et al., 1973). In this study values of 35% were used for non-smoking adults and 55% for smoking adults in Sørumsand and Oslo-Nydalen. These values were increased to 50 and 75% in Holmestrand to account for the aerosol nature of traffic pollution. These values were further increased to 60 and 85% in children and pensionists.

Absorption of lead from the lungs

The lead that is retained by the lungs is totally absorbed (Chamberlain, 1983; EPA, 1987). Absorption was thus set at 100%.

Ventilation rates

Standard ventilation rates of 16 to 25 m^3/day were used.

Blood volume

Blood volume varies by age and sex. Values for adult men were assigned as 55 dl, whereas adult women were assigned 40 dl. Since the majority of non-smoking pensionists were women, that value was given 40 dl, whereas the majority of smoking pensionists were men and therefore given the value of 55 dl (see Table 1-2 in Appendix 1). Values for children can be estimated using 60 ml per kg body weight (Åstrand, Rodahl, 1977). Examination of the population age group revealed that a value of 25 dl was a good estimate (see Table 1-1 in Appendix 1).

Table 7: **Assumed coefficients for blood volume, ventilation rate, lung retention of lead and gastrointestinal absorption of lead in different population subgroups.**

Population subgroup	Blood volume (dl)	Ventilation rate m^3/day	Lung retention (%)		Gastrointestinal absorption (%)
			Holmestrand	Oslo-Nydalen and Sørumsand	
Adult men					
Non-smokers	55	25	50	35	15
Smokers	55	25	75	55	15
Adult women					
Non-smokers	40	20	50	35	15
Smokers	40	20	75	55	15
Pensionists					
Non-smokers	40	16	60	35	15
Smokers	55	16	85	55	15
Children					
Not exposed to passive smoking	25	25	50	35	15
Exposed to passive smoking	25	25	85	55	15
Babies					
Not exposed to passive smoking	15	20	60	50	15
Exposed to passive smoking	15	20	85	65	20

4 RESULTS AND DISCUSSION

The model was run for the inhabitants of Holmestrand and Sørumsand in 1983, the same two towns in 1984 and Oslo-Nydalen in 1984 using the physiological constants described in 3.3.

Predicted values for those population subgroups where values were also measured are given in Tables 8 to 10 and summarized in Table 11. As can be seen in these tables, the model gave satisfactory predictions for adult women. However, predicted values were too low for adult men. We cannot offer an explanation for this.

Values for pensionists were always too low. This may indicate that in the elderly, lead can also reenter the blood from bone reserves. This was also suggested and discussed in EPA (1987) and Clench-Aas et al.

(1986). Values for children were sometimes too high. This may be a reflection of the same phenomena in reverse, that is in children where metabolism is high, lead is more quickly absorbed into bone (EPA, 1987).

The model is a useful tool to predict blood lead concentrations in individuals living in lead exposed areas. It is, however, necessary to bear in mind that the elderly most likely have higher values and children lower values than predicted by the model.

Table 8: Comparison of the compartment model estimates of blood lead concentration and air lead exposure with measured values in Holmestrand and Sørumsand in 1983, before the opening of the tunnel in various population subgroups. Air lead was estimated using the diary method.

Population subgroup	Pb in blood (µg/dl)		Pb in air (µg/m^3)	
	Field measurements	Compartment model estimates	Field measurements	Compartment model estimates
HOLMESTRAND 1983				
2 XNFJ*	8.3 ± 3.8 (4)	6.4	0.11 ± 0.02 (4)	0.38
30 YNFJ	5.6 ± 4.1 (14)	6.5	0.10 ± 0.03 (14)	0.31
33 YNOJ	5.4 ± 1.0 (3)	5.4	0.09 ± 0.01 (3)	0.14
36 YNEJ	7.6 ± 2.0 (4)	7.4	0.24 ± 0.23 (4)	0.48
44 YMFJ	8.7 ± 2.6 (9)	7.5	0.12 ± 0.02 (9)	0.32
45 YMFK	5.6 ± 2.3 (3)	6.9	0.29 ± 0.22 (3)	0.25
47 YMOJ	6.3 ± 2.1 (3)	6.0	0.08 ± 0.04 (3)	0.15
57 CNSI	7.2 ± 1.7 (5)	10.2	0.13 ± 0.05 (5)	0.33
58 CNSJ	7.2 ± 2.5 (4)	9.7	0.11 ± 0.02 (4)	0.28
62 RNI	6.8 ± 2.9 (26)	4.0	0.17 ± 0.06 (26)	0.18
63 RNJ	7.9 ± 2.0 (9)	3.7	0.10 ± 0.02 (9)	0.13
66 RMI	7.1 ± 3.0 (4)	3.4	0.16 ± 0.01 (4)	0.20
67 RMJ	9.8 ± 2.5 (4)	3.1	0.11 ± 0.02 (4)	0.14
71 CMSJ	12.5 ± 2.6 (9)	12.3	0.13 ± 0.06 (10)	0.30
SØRUMSAND 1983				
6 XNOK	6.1 ± 2.4 (11)	4.6	0.06 ± 0.03 (11)	0.08
20 XMOK	6.3 ± 1.4 (8)	4.8	0.08 ± 0.08 (8)	0.09
34 YNOK	4.6 ± 1.9 (36)	5.0	0.04 ± 0.02 (36)	0.08
38 YNOKP	5.0 ± 2.1 (3)	5.1	0.11 ± 0.03 (3)	0.11
48 YMOK	3.7 ± 1.7 (16)	5.2	0.05 ± 0.02 (16)	0.08
59 CNSK	4.7 ± 1.8 (20)	9.2	0.06 ± 0.03 (20)	0.21
64 RNK	4.6 ± 2.1 (8)	3.1	0.06 ± 0.07 (8)	0.04
68 RMK	7.5 ± 3.4 (3)	2.4	0.03 ± 0.01 (3)	0.04

* See Table 2 for definition of subgroups.

Table 9: Comparison of the compartment model estimates of blood lead concentration and air lead exposure with measured values in Holmestrand and Sørumsand in 1984, after the removal of traffic, in various population subgroups. Air lead was estimated using the diary method.

Population subgroup	Pb in blood (μg/dl)		Pb in air (μg/m^3)	
	Field measurements	Compartment model estimates	Field measurements	Compartment model estimates
HOLMESTRAND 1984				
5 XNOJ*	6.4 ± 3.8 (3)	3.6	0.09 ± 0.06 (3)	0.08
16 XMFJ	9.3 ± 7.0 (5)	5.7	0.04 ± 0.01 (5)	0.32
30 YNFJ	6.9 ± 4.0 (12)	4.8	0.06 ± 0.03 (12)	0.24
36 YNEJ	9.0 ± 5.5 (3)	5.8	0.11 ± 0.06 (4)	0.41
44 YMFJ	8.6 ± 5.9 (11)	5.6	0.05 ± 0.02 (11)	0.26
50 YMEJ	6.7 ± 1.0 (3)	7.1	0.08 ± 0.03 (3)	0.42
57 CNSI	5.8 ± 2.2 (4)	7.6	0.06 ± 0.02 (4)	0.26
58 CNSJ	8.1 ± 5.0 (6)	6.9	0.07 ± 0.04 (6)	0.20
62 RNI	4.2 ± 1.6 (17)	2.9	0.04 ± 0.02 (18)	0.12
63 RNJ	6.4 ± 2.9 (7)	2.5	0.05 ± 0.03 (7)	0.05
66 RMI	3.7 ± 2.6 (5)	2.5	0.05 ± 0.02 (5)	0.14
71 CMSJ	8.8 ± 2.6 (6)	8.7	0.06 ± 0.02 (7)	0.21
SØRUMSAND 1984				
6 XNOK	6.2 ± 2.4 (10)	3.4	0.07 ± 0.04 (10)	0.07
20 YMOK	7.0 ± 3.9 (10)	3.5	0.09 ± 0.08 (10)	0.07
34 YNOK	4.4 ± 2.4 (28)	3.6	0.06 ± 0.06 (28)	0.07
38 YNOKP	3.6 ± 1.0 (3)	3.7	0.09 ± 0.08 (3)	0.08
48 YMOK	3.2 ± 1.0 (13)	3.8	0.04 ± 0.05 (13)	0.07
59 CNSK	4.4 ± 1.7 (16)	6.8	0.04 ± 0.05 (18)	0.18
64 RNK	3.1 ± 0.9 (4)	2.3	0.03 ± 0.05 (6)	0.03

* See Table 2 for definition of subgroups.

Table 10: Comparison of the compartment model estimates of blood lead concentration and air lead exposure with measured values in Oslo-Nydalen in various population subgroupds. Air lead exposure was estimated using the diary method.

Population subgroup	Pb in blood (µg/dl)		Pb in air (µg/m^3)	
	Field measurements	Compartment model estimates	Field measurements	Compartment model estimates
1 XNFI*	6.7 ± 3.0 (3)	5.8	0.41 ± 0.01 (3)	0.32
2 XNFJ	6.0 ± 1.7 (17)	5.4	0.20 ± 0.05 (18)	0.19
5 XNOJ	6.8 ± 3.5 (10)	5.3	0.20 ± 0.05 (11)	0.18
8 XNEJ	5.5 ± 2.2 (5)	5.6	0.31 ± 0.04 (5)	0.26
11 XNEJP	7.1 ± 1.8 (5)	5.6	0.30 ± 0.04 (6)	0.27
16 XMFJ	7.3 ± 4.3 (20)	5.9	0.19 ± 0.05 (20)	0.20
19 XMOJ	6.3 ± 2.0 (5)	5.8	0.17 ± 0.03 (5)	0.20
25 XMEJP	6.8 ± 2.6 (4)	6.4	0.31 ± 0.04 (4)	0.29
29 YNFI	3.9 ± 1.0 (3)	6.6	0.46 ± 0.01 (3)	0.33
30 YNFJ	5.0 ± 2.1 (40)	6.1	0.18 ± 0.04 (41)	0.19
31 YNFK	5.3 ± 1.3 (3)	5.9	0.17 ± 0.01 (3)	0.15
33 YNOJ	4.6 ± 1.9 (9)	6.0	0.20 ± 0.04 (9)	0.18
34 YNOK	5.5 ± 1.9 (6)	5.8	0.21 ± 0.07 (6)	0.14
35 YNEIL	4.4 ± 0.9 (3)	7.2	0.48 ± 0.13 (3)	0.38
38 YNOKP	5.4 ± 0.8 (4)	5.9	0.17 ± 0.08 (4)	0.16
39 YNEJP	4.8 ± 1.4 (4)	6.4	0.21 ± 0.07 (4)	0.26
44 YMFJ	5.4 ± 2.5 (28)	6.6	0.19 ± 0.03 (29)	0.21
47 YMOJ	5.6 ± 2.6 (16)	6.6	0.19 ± 0.04 (16)	0.21
53 YMEJP	6.7 ± 2.4 (5)	7.0	0.25 ± 0.04 (5)	0.28
57 CNSI	5.8 ± 2.4 (5)	10.7	0.52 ± 0.08 (6)	0.38
58 CNSJ	6.2 ± 2.3 (65)	9.2	0.21 ± 0.05 (73)	0.21
59 CNSK	6.2 ± 2.4 (11)	8.6	0.20 ± 0.09 (15)	0.14
63 RNJ	8.9 ± 3.9 (20)	3.9	0.12 ± 0.01 (22)	0.18
64 RNK	6.3 ± 5.0 (5)	3.8	0.30 ± 0.10 (5)	0.12
67 RMJ	11.4 ± 4.7 (7)	3.3	0.11 ± 0.00 (9)	0.20
68 RMK	11.0 ± 3.4 (3)	3.1	0.38 ± 0.04 (3)	0.14
70 CMSI	5.4 ± 1.4 (5)	12.9	0.56 ± 0.14 (5)	0.39
71 CMSJ	6.2 ± 2.1 (52)	10.4	0.22 ± 0.04 (61)	0.22
72 CMSK	7.0 ± 2.2 (8)	9.5	0.26 ± 0.11 (11)	0.16

* See Table 2 for definition of subgroups.

Table 11: Summary of measured and predicted values of blood lead (µg/dl) in different population subgroups.

	Adult men		Adult women		Pensionists		Children	
	Non-smokers	Smokers	Non-smokers	Smokers	Non-smokers	Smokers	Not exposed to passive smoking	Exposed to passive smoking
Sørumsand 1983								
Measured	6.1	6.3	4.6	3.7	4.6	7.5	4.7	NA
Predicted	4.6	4.8	5.0	5.2	3.1	2.4	9.2	NA
Holmestrand 1983								
Measured	8.3	NA	5.6	7.6	6.8	8.4	7.2	12.5
Predicted	6.4	NA	6.5	7.1	3.9	3.2	10.0	12.3
Sørumsand 1984								
Measured	6.2	7.0	4.4	3.2	3.1	NA	4.4	NA
Predicted	3.4	3.5	3.6	3.8	2.3	NA	6.8	NA
Holmestrand 1984								
Measured	6.4	9.3	7.3	8.2	4.8	3.7	7.2	8.8
Predicted	3.6	5.7	5.0	6.0	2.8	2.5	7.2	8.7
Oslo-Nydalen								
Measured	6.3	7.0	4.9	5.6	8.4	11.3	6.2	6.2
Predicted	5.4	6.0	6.1	6.6	3.9	3.3	9.2	10.5

The above values are weighted means calculated from Tables 8-10.

NA: Not applicable since there were no individuals in this category.

5 REFERENCES

Camner, P., Philipson, K., Arvidsson, T. (1973) Withdrawal of cigarette smoke. Arch. Environ. Health, 26, 90-92.

Chamberlain, A.C. (1983) Effect of airborne lead on blood lead. Atmos. Environ., 17, 677-692.

Clench-Aas, J., Thomassen Y., Levy, F., Skaug, K. (1984) Blood Lead - A function of vehicular emissions and smoking Part I. Lillestrøm (NILU OR 43/44).

Clench-Aas, J., Thomassen Y., Levy, F., Moseng, J., Skaug, K. (1986) Lead in blood in inhabitants of Oslo-Nydalen exposed to air lead from industrial and vehicular sources, Part I. Lillestrøm (NILU OR 14/86).

Clench-Aas, J., Thomassen Y., Levy, F., Skaug, K., Bartanova, A. (1989) The effect of reducing air lead from vehicular sources on the blood lead concentrations in two Norwegian towns - A cohort study. Lillestrøm (under publication).

Environmental Protection Agency (1987) Air Quality Criteria for lead. Research Triangle Park (EPA-600/8-83/028a F).

Sivertsen B., (1985) Basisundersøkelse av luftkvaliteten i Sarpsborg og Fredrikstad 1981-1983, Delrapport E: Beregning av blyeksponering. Lillestrøm (NILU OR 39/84 eller SFT rapport 182/85).

Åstrand P.-O., Rodahl, K. (1977) Textbook of Work Physiology. McGraw Hill.

APPENDIX 1

Definitions and units of abbreviations used in the model,
plus some basic assumptions.

Table 1-1: Definitions and units of abbreviations used in the compartment model.

CS2 - STEADY STATE CONC.IN SOIL (UG*UG**-1)
A4 - LEAF SURFACE (M2)
SA2 - SOIL SURFACE (M2)
FS12 - STEADY STATE FLUX AIR-SOIL (UG*5**-1)
T2 - RESIDENCE TIME(OF LEAD)IN SOIL(S)
MD2 - MIXING DEPTH IN SOIL(M)
RO2 - DENSITY OF SOIL(UG M**-3)
VD12 - DEPOSITION VELOCITY TO SOIL(M S**-1)
CS3A - STEADY STATE CON.IN PLANT A,FROM SOIL(UG*UG**-1)
CS7A - STEADY STATE CON.IN DIET A,FROM SOIL(UG*UG**-1)
CS8A - STEADY STATE CON.IN GI-TRACT(UG*UG**-1)
CS10A- STEADY STATE CON.IN BLOOD FROM DIET A(UG*L**-1)
FS23A- ST.STATE FLUX SOIL-PLANTS(ROTS),DIET A(UG*S**-1)
FS37A- ST.STATE FLUX ROOTS-DIET (DIET A)(UG*S**-1)
FS78A- ST.STATE FLUX DIET A-GI TRACT(UG*S**-1)
FS810A-ST.STATE FLUX GI-TRACT TO BLOOD OF DIET A(UG*S**-1)
T10 - RESIDENCE TIME OF LEAD IN BLOOD (S)
M10 - BLOOD VOLUME (DL)
VD14B- DEP.VELOCITY TO LEAF SURF.B (M S**-1)
FS14B- STEADY STATE FLUX AIR-PLANT SURFACE
FS47B- STEADY STATE FLUX PLANT-DIET
TB4 - RESIDENCE TIME OF PB ON CERCALS(S)
PRB - PRODUCTION OF CERCALS PR.M2 (UG M**-2)
VD14C- DEP.VELOSITY TO FRUIT,BERRIES (M S**-1)
TC4 - RESIDENCE TIME OF PB ON VEGETABLE (S)
PRC - PRODUCTION FRUIT/BERRIES PR.M2 (UG M**-2)
TF4 - RESIDENCE TIME OF PB ON VEGETABLE(S)
FR - RETENSION OF LEAD INHALED INTO PULMONARY REGIONS OF LUNG
KBR - BREATHING RATE FACTOR
RF(I)- ABSORPTION OF INGESTED PB INTO BLOOD
BACK - INTAKE OF FOOD NOT INCLUDED IN COMPONENT MODEL(UG/D)
FABS - FRACTION OF LEAD IN LUNG ABSORBED INTO BLOOD(1.0)
T(I) - TIME SPENT IN EACH ENVIRONMENT(H)
BRJ - (LUNG VENTILATION)BREATHING RATE(M**3*DAY**-1)
MA - CONSUM POTATO (G/D)
MB - CONSUM CEREALS (G/D)
MC - CONSUM FRUIT/BERRIES (G/D)
MD - CONSUM MEAT (G/D)
ME - CONSUM MILK (G/D)
MF - CONSUM SURF.VEG. (G/D)
MN(J)- NUMBER OF PERSONS IN GROUPS J

Table 1-2: Ages and sex of children and pensionists in Sørumsand, Holmestrand and Oslo-Nydalen.

	Holmestrand								Sørumsand								Oslo-Nydalen			
	1983				1984				1983				1984							
	Age category				Age category				Age category				Age category				Age category			
	2	3	M	F	2	3	M	F	2	3	M	F	2	3	M	F	2	3	M	F
57 CNSI	2	4	0	6	1	3	1	3	0	0	-	-	0	0	-	-	5	1	1	5
58 CNSJ	1	3	2	2	1	5	2	4	0	0	-	-	0	0	-	-	40	34	41	33
59 CNSK	0	0	-	-	0	1	1	0	12	8	11	9	12	6	12	6	8	7	9	6
70 CMSI	0	0	-	-	0	0	-	-	0	0	-	-	0	0	-	-	2	3	4	1
71 CMSJ	4	6	5	5	3	4	5	2	0	0	-	-	0	0	-	-	32	29	35	26
72 CMSK	0	0	-	-	0	1	0	1	0	2	0	2	1	2	0	3	8	3	8	3
		M	F			M	F			M	F			M	F			M	F	
62 RNI		6	20			3	15			-	-			-	-			-	-	
63 RNJ		6	3			6	1			-	-			-	-			6	16	
64 RNK		0	1			0	1			2	6			1	5			1	4	
65 RNKH		-	-			-	-			-	-			-	-			-	-	
66 RMI		2	2			3	2			-	-			-	-			-	-	
67 RMJ		2	2			2	0			-	-			-	-			7	2	
68 RMK		-	-			-	-			3	0			2	0			2	1	
69 RMKH		-	-			-	-			-	-			-	-			-	-	

Age category: 2 = 5-10; 3 = 11-15.

APPENDIX 2

Assumptions used and results found when using the model in Sørumsand in 1983.

Table 2-1: The amount of time spent in each microenvironment by each of the population subgroups, input to compartment model.

SØRUMSAND 1983															
1XNFI	.3	.3	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.5	.0	.0	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
2XNFJ	.0	.3	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.5	.0	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
3XNFK	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
4XNOIL	.3	.3	.0	.0	.0	1.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
	15.5	.0	.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
5XNOJ	.0	.3	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.5	.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
6XNOK	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
7XNEI	.3	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.5	.0	.0	.0	.0	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
8XNEJ	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.5	.0	.0	.0	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
9XNFKP	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	1.0	.0	.0
10XNOKP	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	1.0	.0	.0
11XNEJP	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.0	.0	.0	.0	.0	.5	.0	.0	.0	5.5	.0	1.0	.0	.0
12XNUI	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	21.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
13XNUJ	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	21.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
14XNUK	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	21.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
15XMFI	.3	.3	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.5	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
16XMFJ	.0	.3	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.5	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
17XMFK	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	.5	.0	.0	5.5	.0	.0	.5	.0	.0
18XMOI	.3	.3	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.5	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
19XMOJ	.0	.3	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.5	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
20XMOK	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	.5	.0	5.5	.0	.0	.0	.5	.0	.0
21XMEI	.3	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.5	.0	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
22XMEJ	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.5	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
23XMFKP	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.0	.5	.0	.0	5.5	.0	.0	1.0	.0	.0
24XMOKP	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.0	.5	.0	5.5	.0	.0	.0	1.0	.0	.0
25XMEJP	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.0	.0	.5	.0	.0	.0	5.5	.0	1.0	.0	.0
26XMUI	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	21.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
27XMUJ	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	21.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
28XMUK	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	21.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
29YNFI	.3	.4	.5	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	17.0	.0	.0	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
30YNFJ	.0	.4	.5	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.0	.0	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
31YNFK	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	17.0	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
32YNOI	.3	.4	.5	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	17.0	.0	.0	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
33YNOJ	.0	.4	.5	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.0	.0	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
34YNOK	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	17.0	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
35YNEIL	.3	.4	.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.3	.0	.0	.0	.0	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
36YNEJ	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.3	.0	.0	.0	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
37YNFKP	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.5	.5	.0
38YNOKP	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.5	.5	.0
39YNEJP	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.8	.0	.0	.0	.0	1.0	.0	.0	.0	4.0	.0	.5	.5	.0

Table 2-1, cont.

SØRUMSAND 1983

40YNUI	.5	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	21.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
41YNUJ	.0	1.0	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	21.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
42YNUK	.0	1.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	21.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
43YMFI	.3	.4	.5	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	17.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
44YMFJ	.0	.4	.5	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	17.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
45YMFK	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	17.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
46YMOI	.3	.4	.5	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	17.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
47YMOJ	.0	.4	.5	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	17.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
48YMOK	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	17.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
49YMEIL	.3	.4	.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.3	.0	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
50YMEJ	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	17.3	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
51YMDKP	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	1.0	.0	.0	4.0	.0	.0	.5	.5	.0
52YMOKP	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	1.0	.0	4.0	.0	.0	.0	.5	.5	.0
53YMEJP	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.8	.0	1.0	.0	.0	.0	4.0	.0	.5	.5	.0
54YMUI	.5	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	21.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
55YMUJL	.0	1.0	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	21.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
56YMUK	.0	1.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	21.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
57CNSI	.0	2.5	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.0	.0	.0	.0	.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.5
58CNSJ	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.0	.0	.0	.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.5
59CNSK	.0	.0	.0	.0	1.5	.0	.0	2.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.0	.0	.0	.0	.5	.0	.0	3.0	.0	.0	.5	.0	.0
60BNI	4.0	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	17.5	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
61BNJ	.0	1.0	.5	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.5	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
62RNI	.0	3.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	19.5	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
63RNJ	.0	.0	.5	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	19.5	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
64RNK	.0	.0	.5	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	19.5	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
65RNKH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	24.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
66RMI	.0	3.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	19.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
67RMJ	.0	.0	.5	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	19.5	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
68RMK	.0	.0	.5	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	19.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0
69RMKH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	24.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
70CMSI	.0	2.5	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.0	.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.0
71CMSJ	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.5
72CMSK	.0	.0	.0	.0	1.5	.0	.0	2.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.0	.5	.0	.0	3.0	.0	.0	.5	.0	.0
73BMI	4.0	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	19.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
74BMJ	.0	1.0	.5	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	19.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
75BNK	.0	1.0	.5	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	17.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
76BMK	.0	1.0	.5	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	17.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0

Table 2-2: Biological coefficients used in model prediction (see Appendix 1 for abbreviations) for each population subgroup, input to compartment model.

	MA	MB	MC	MD	ME	MF	BRJ	M10J	MN	FR	RF
1XNFI	190.	240.	50.	120.	480.	80.	25.	55.	2100.	35.	15.
2XNFJ	190.	240.	50.	120.	480.	80.	25.	55.	3000.	35.	15.
3XNFK	190.	240.	50.	120.	480.	80.	25.	55.	300.	35.	15.
4XNOIL	180.	230.	50.	120.	420.	80.	25.	55.	2900.	35.	15.
5XNOJ	180.	230.	50.	120.	420.	80.	25.	55.	2000.	35.	15.
6XNOK	190.	240.	50.	120.	420.	80.	25.	55.	900.	35.	15.
7XNEI	190.	240.	50.	120.	420.	80.	25.	55.	1100.	35.	15.
8XNEJ	190.	240.	50.	120.	420.	80.	25.	55.	1400.	35.	15.
9XNFKP	190.	240.	50.	120.	420.	80.	25.	55.	900.	35.	15.
10XNOKP	190.	240.	50.	120.	420.	80.	25.	55.	1200.	35.	15.
11XNEJP	190.	240.	50.	120.	420.	80.	25.	55.	1200.	35.	15.
12XNUI	180.	250.	50.	90.	480.	80.	25.	55.	600.	35.	15.
13XNUJ	180.	250.	50.	90.	480.	80.	25.	55.	600.	35.	15.
14XNUK	180.	250.	50.	90.	480.	80.	25.	55.	600.	35.	15.
15XMFI	200.	250.	50.	120.	480.	80.	25.	55.	1600.	55.	15.
16XMFJ	200.	250.	50.	120.	480.	80.	25.	55.	2300.	55.	15.
17XMFK	200.	250.	50.	120.	480.	80.	25.	55.	200.	55.	15.
18XMOI	180.	230.	50.	120.	420.	80.	25.	55.	2100.	55.	15.
19XMOJ	180.	230.	50.	120.	420.	80.	25.	55.	1500.	55.	15.
20XMOK	180.	230.	50.	120.	420.	80.	25.	55.	600.	55.	15.
21XMEI	190.	240.	50.	120.	480.	80.	25.	55.	900.	55.	15.
22XMEJ	190.	240.	50.	120.	480.	80.	25.	55.	1100.	55.	15.
23XMFKP	190.	240.	50.	120.	480.	80.	25.	55.	600.	55.	15.
24XMOKP	180.	230.	50.	120.	480.	80.	25.	55.	1000.	55.	15.
25XMEJP	200.	250.	50.	120.	480.	80.	25.	55.	1000.	55.	15.
26XMUI	180.	260.	50.	90.	480.	80.	25.	55.	400.	55.	15.
27XMUJ	180.	260.	50.	90.	480.	80.	25.	55.	400.	55.	15.
28XMUK	180.	260.	50.	90.	480.	80.	25.	55.	400.	55.	15.
29YNFI	130.	160.	50.	90.	360.	60.	20.	40.	1100.	35.	15.
30YNFJ	130.	160.	50.	90.	360.	60.	20.	40.	900.	35.	15.
31YNFK	130.	160.	50.	90.	360.	60.	20.	40.	300.	35.	15.
32YNOI	120.	140.	50.	90.	360.	60.	20.	40.	2400.	35.	15.
33YNOJ	120.	140.	50.	90.	360.	60.	20.	40.	1200.	35.	15.
34YNOK	120.	140.	50.	90.	360.	60.	20.	40.	900.	35.	15.
35YNEIL	130.	150.	50.	90.	360.	80.	20.	40.	600.	35.	15.
36YNEJ	130.	150.	50.	90.	360.	60.	20.	40.	900.	35.	15.
37YNFKP	130.	150.	50.	90.	360.	60.	20.	40.	600.	35.	15.
38YNOKP	120.	150.	50.	90.	360.	60.	20.	40.	1200.	35.	15.
39YNEJP	140.	150.	50.	90.	360.	60.	20.	40.	600.	35.	15.
40YNUI	110.	150.	50.	70.	360.	60.	20.	40.	5600.	35.	15.
41YNUJ	110.	160.	50.	70.	360.	60.	20.	40.	2500.	35.	15.
42YNUK	110.	160.	50.	70.	360.	60.	20.	40.	1600.	35.	15.
43YMFI	140.	150.	50.	90.	360.	60.	20.	40.	900.	55.	15.
44YMFJ	140.	150.	50.	90.	360.	60.	20.	40.	600.	55.	15.
45YMFK	140.	150.	50.	90.	360.	60.	20.	40.	200.	55.	15.
46YMOI	120.	140.	50.	90.	360.	60.	20.	40.	1600.	55.	15.
47YMOJ	120.	140.	50.	90.	360.	60.	20.	40.	800.	55.	15.
48YMOK	120.	140.	50.	90.	360.	60.	20.	40.	600.	55.	15.
49YMEIL	130.	150.	50.	90.	360.	80.	20.	40.	400.	55.	15.
50YMEJ	130.	150.	50.	90.	360.	60.	20.	40.	600.	55.	15.
51YMDKP	130.	150.	50.	90.	360.	60.	20.	40.	400.	55.	15.
52YMOKP	130.	150.	50.	90.	360.	60.	20.	40.	800.	55.	15.
53YMEJP	130.	150.	50.	90.	360.	60.	20.	40.	400.	55.	15.
54YMUI	110.	160.	50.	90.	360.	60.	20.	40.	3400.	55.	15.
55YMUJL	110.	160.	50.	90.	360.	60.	20.	40.	1500.	55.	15.
56YMUK	110.	160.	50.	90.	360.	60.	20.	40.	900.	55.	15.
57CNSI	100.	230.	30.	80.	550.	40.	25.	22.	6000.	35.	15.
58CNSJ	100.	230.	30.	80.	550.	40.	25.	22.	5000.	35.	15.
59CNSK	100.	230.	30.	80.	550.	40.	25.	22.	2000.	35.	15.
60BNI	50.	100.	20.	20.	400.	20.	20.	15.	3000.	50.	15.
61BNJ	50.	100.	20.	20.	400.	20.	20.	15.	1500.	50.	15.
62RNI	70.	150.	30.	50.	100.	40.	16.	40.	2000.	35.	15.
63RNJ	70.	150.	30.	50.	100.	40.	16.	40.	2000.	35.	15.
64RNK	70.	150.	30.	50.	100.	40.	16.	40.	1500.	35.	15.
65RNKH	70.	150.	30.	50.	100.	40.	16.	40.	4000.	35.	15.
66RMI	70.	150.	30.	50.	100.	40.	16.	55.	1000.	55.	15.
67RMJ	70.	150.	30.	50.	100.	40.	16.	55.	1500.	55.	15.
68RMK	70.	150.	30.	50.	100.	40.	16.	55.	500.	55.	15.
69RMKH	70.	150.	30.	50.	100.	40.	16.	55.	4000.	55.	15.
70CMSI	100.	230.	30.	80.	550.	40.	25.	25.	3000.	55.	15.
71CMSJ	100.	230.	30.	80.	550.	40.	25.	25.	2500.	55.	15.
72CMSK	100.	230.	30.	80.	550.	40.	25.	25.	1000.	55.	15.
73BMI	50.	100.	20.	20.	400.	20.	20.	15.	1000.	65.	20.
74BMJ	50.	100.	20.	20.	400.	20.	20.	15.	500.	65.	20.
75BNK	50.	100.	20.	20.	400.	20.	20.	15.	500.	50.	20.
76BNK	50.	100.	20.	20.	400.	20.	20.	15.	500.	65.	20.

Table 2-3: Lead intake from food (µg/day) for each population sub-group, input to compartment model.

	INTAKE FROM FOOD (µg/day)						
	POTATO	CEREAL	FRUIT	MEAT	MILK	VTABLE	BACKGR
1	7.2	7.4	13.8	19.0	6.1	10.2	15.0
2	7.2	7.4	13.8	19.0	6.1	10.2	15.0
3	7.2	7.4	13.8	19.0	6.1	10.2	15.0
4	6.8	7.1	13.8	19.0	5.3	10.2	15.0
5	6.8	7.1	13.8	19.0	5.3	10.2	15.0
6	7.2	7.4	13.8	19.0	5.3	10.2	15.0
7	7.2	7.4	13.8	19.0	5.3	10.2	15.0
8	7.2	7.4	13.8	19.0	5.3	10.2	15.0
9	7.2	7.4	13.8	19.0	5.3	10.2	15.0
10	7.2	7.4	13.8	19.0	5.3	10.2	15.0
11	7.2	7.4	13.8	19.0	5.3	10.2	15.0
12	6.8	7.7	13.8	14.3	6.1	10.2	15.0
13	6.8	7.7	13.8	14.3	6.1	10.2	15.0
14	6.8	7.7	13.8	14.3	6.1	10.2	15.0
15	7.5	7.7	13.8	19.0	6.1	10.2	15.0
16	7.5	7.7	13.8	19.0	6.1	10.2	15.0
17	7.5	7.7	13.8	19.0	6.1	10.2	15.0
18	6.8	7.1	13.8	19.0	5.3	10.2	15.0
19	6.8	7.1	13.8	19.0	5.3	10.2	15.0
20	6.8	7.1	13.8	19.0	5.3	10.2	15.0
21	7.2	7.4	13.8	19.0	6.1	10.2	15.0
22	7.2	7.4	13.8	19.0	6.1	10.2	15.0
23	7.2	7.4	13.8	19.0	6.1	10.2	15.0
24	6.8	7.1	13.8	19.0	6.1	10.2	15.0
25	7.5	7.7	13.8	19.0	6.1	10.2	15.0
26	6.8	8.0	13.8	14.3	6.1	10.2	15.0
27	6.8	8.0	13.8	14.3	6.1	10.2	15.0
28	6.8	8.0	13.8	14.3	6.1	10.2	15.0
29	4.9	5.0	13.8	14.3	4.6	7.7	15.0
30	4.9	5.0	13.8	14.3	4.6	7.7	15.0
31	4.9	5.0	13.8	14.3	4.6	7.7	15.0
32	4.5	4.3	13.8	14.3	4.6	7.7	15.0
33	4.5	4.3	13.8	14.3	4.6	7.7	15.0
34	4.5	4.3	13.8	14.3	4.6	7.7	15.0
35	4.9	4.6	13.8	14.3	4.6	10.2	15.0
36	4.9	4.6	13.8	14.3	4.6	7.7	15.0
37	4.9	4.6	13.8	14.3	4.6	7.7	15.0
38	4.5	4.6	13.8	14.3	4.6	7.7	15.0
39	5.3	4.6	13.8	14.3	4.6	7.7	15.0
40	4.2	4.6	13.8	11.1	4.6	7.7	15.0
41	4.2	5.0	13.8	11.1	4.6	7.7	15.0
42	4.2	5.0	13.8	11.1	4.6	7.7	15.0
43	5.3	4.6	13.8	14.3	4.6	7.7	15.0
44	5.3	4.6	13.8	14.3	4.6	7.7	15.0
45	5.3	4.6	13.8	14.3	4.6	7.7	15.0
46	4.5	4.3	13.8	14.3	4.6	7.7	15.0
47	4.5	4.3	13.8	14.3	4.6	7.7	15.0
48	4.5	4.3	13.8	14.3	4.6	7.7	15.0
49	4.9	4.6	13.8	14.3	4.6	10.2	15.0
50	4.9	4.6	13.8	14.3	4.6	7.7	15.0
51	4.9	4.6	13.8	14.3	4.6	7.7	15.0
52	4.9	4.6	13.8	14.3	4.6	7.7	15.0
53	4.9	4.6	13.8	14.3	4.6	7.7	15.0
54	4.2	5.0	13.8	14.3	4.6	7.7	15.0
55	4.2	5.0	13.8	14.3	4.6	7.7	15.0
56	4.2	5.0	13.8	14.3	4.6	7.7	15.0
57	3.8	7.1	8.3	12.7	7.0	5.1	15.0
58	3.8	7.1	8.3	12.7	7.0	5.1	15.0
59	3.8	7.1	8.3	12.7	7.0	5.1	15.0
60	1.9	3.1	5.5	3.2	5.1	2.6	15.0
61	1.9	3.1	5.5	3.2	5.1	2.6	15.0
62	2.6	4.6	8.3	7.9	1.3	5.1	15.0
63	2.6	4.6	8.3	7.9	1.3	5.1	15.0
64	2.6	4.6	8.3	7.9	1.3	5.1	15.0
65	2.6	4.6	8.3	7.9	1.3	5.1	15.0
66	2.6	4.6	8.3	7.9	1.3	5.1	15.0
67	2.6	4.6	8.3	7.9	1.3	5.1	15.0
68	2.6	4.6	8.3	7.9	1.3	5.1	15.0
69	2.6	4.6	8.3	7.9	1.3	5.1	15.0
70	3.8	7.1	8.3	12.7	7.0	5.1	15.0
71	3.8	7.1	8.3	12.7	7.0	5.1	15.0
72	3.8	7.1	8.3	12.7	7.0	5.1	15.0
73	1.9	3.1	5.5	3.2	5.1	2.6	15.0
74	1.9	3.1	5.5	3.2	5.1	2.6	15.0
75	1.9	3.1	5.5	3.2	5.1	2.6	15.0
76	1.9	3.1	5.5	3.2	5.1	2.6	15.0

Table 2-4: Calculated lead exposure to blood (percent absorbed) for each populations subgroup (Transfact Method).

	EXPOSURE TO BLOOD (TRANSFACT METHOD)							
	POTATO	CEREAL	MEAT	MILK	FRUIT	VTABLE	BACKGR	SUM
1	.4	.5	1.2	.4	.9	.6	.4	4.4
2	.4	.5	1.2	.4	.9	.6	.4	4.4
3	.4	.5	1.2	.4	.9	.6	.4	4.4
4	.4	.4	1.2	.3	.9	.6	.4	4.3
5	.4	.4	1.2	.3	.9	.6	.4	4.3
6	.4	.5	1.2	.3	.9	.6	.4	4.3
7	.4	.5	1.2	.3	.9	.6	.4	4.3
8	.4	.5	1.2	.3	.9	.6	.4	4.3
9	.4	.5	1.2	.3	.9	.6	.4	4.3
10	.4	.5	1.2	.3	.9	.6	.4	4.3
11	.4	.5	1.2	.3	.9	.6	.4	4.3
12	.4	.5	.9	.4	.9	.6	.4	4.1
13	.4	.5	.9	.4	.9	.6	.4	4.1
14	.4	.5	.9	.4	.9	.6	.4	4.1
15	.5	.5	1.2	.4	.9	.6	.4	4.4
16	.5	.5	1.2	.4	.9	.6	.4	4.4
17	.5	.5	1.2	.4	.9	.6	.4	4.4
18	.4	.4	1.2	.3	.9	.6	.4	4.3
19	.4	.4	1.2	.3	.9	.6	.4	4.3
20	.4	.4	1.2	.3	.9	.6	.4	4.3
21	.4	.5	1.2	.4	.9	.6	.4	4.4
22	.4	.5	1.2	.4	.9	.6	.4	4.4
23	.4	.5	1.2	.4	.9	.6	.4	4.4
24	.4	.4	1.2	.4	.9	.6	.4	4.4
25	.5	.5	1.2	.4	.9	.6	.4	4.4
26	.4	.5	.9	.4	.9	.6	.4	4.1
27	.4	.5	.9	.4	.9	.6	.4	4.1
28	.4	.5	.9	.4	.9	.6	.4	4.1
29	.4	.4	1.2	.4	1.2	.7	.4	4.7
30	.4	.4	1.2	.4	1.2	.7	.4	4.7
31	.4	.4	1.2	.4	1.2	.7	.4	4.7
32	.4	.4	1.2	.4	1.2	.7	.4	4.6
33	.4	.4	1.2	.4	1.2	.7	.4	4.6
34	.4	.4	1.2	.4	1.2	.7	.4	4.6
35	.4	.4	1.2	.4	1.2	.9	.4	4.9
36	.4	.4	1.2	.4	1.2	.7	.4	4.7
37	.4	.4	1.2	.4	1.2	.7	.4	4.7
38	.4	.4	1.2	.4	1.2	.7	.4	4.7
39	.5	.4	1.2	.4	1.2	.7	.4	4.7
40	.4	.4	1.0	.4	1.2	.7	.4	4.4
41	.4	.4	1.0	.4	1.2	.7	.4	4.4
42	.4	.4	1.0	.4	1.2	.7	.4	4.4
43	.5	.4	1.2	.4	1.2	.7	.4	4.7
44	.5	.4	1.2	.4	1.2	.7	.4	4.7
45	.5	.4	1.2	.4	1.2	.7	.4	4.7
46	.4	.4	1.2	.4	1.2	.7	.4	4.6
47	.4	.4	1.2	.4	1.2	.7	.4	4.6
48	.4	.4	1.2	.4	1.2	.7	.4	4.6
49	.4	.4	1.2	.4	1.2	.9	.4	4.9
50	.4	.4	1.2	.4	1.2	.7	.4	4.7
51	.4	.4	1.2	.4	1.2	.7	.4	4.7
52	.4	.4	1.2	.4	1.2	.7	.4	4.7
53	.4	.4	1.2	.4	1.2	.7	.4	4.7
54	.4	.4	1.2	.4	1.2	.7	.4	4.7
55	.4	.4	1.2	.4	1.2	.7	.4	4.7
56	.4	.4	1.2	.4	1.2	.7	.4	4.7
57	.6	1.1	2.0	1.1	1.3	.8	.4	7.3
58	.6	1.1	2.0	1.1	1.3	.8	.4	7.3
59	.6	1.1	2.0	1.1	1.3	.8	.4	7.3
60	.4	.7	.7	1.2	1.3	.6	.4	5.3
61	.4	.7	.7	1.2	1.3	.6	.4	5.3
62	.2	.4	.7	.1	.7	.4	.4	3.0
63	.2	.4	.7	.1	.7	.4	.4	3.0
64	.2	.4	.7	.1	.7	.4	.4	3.0
65	.2	.4	.7	.1	.7	.4	.4	3.0
66	.2	.3	.5	.1	.5	.3	.4	2.3
67	.2	.3	.5	.1	.5	.3	.4	2.3
68	.2	.3	.5	.1	.5	.3	.4	2.3
69	.2	.3	.5	.1	.5	.3	.4	2.3
70	.5	1.0	1.8	1.0	1.1	.7	.4	6.5
71	.5	1.0	1.8	1.0	1.1	.7	.4	6.5
72	.5	1.0	1.8	1.0	1.1	.7	.4	6.5
73	.6	.9	1.0	1.6	1.7	.8	.4	6.9
74	.6	.9	1.0	1.6	1.7	.8	.4	6.9
75	.6	.9	1.0	1.6	1.7	.8	.4	6.9
76	.6	.9	1.0	1.6	1.7	.8	.4	6.9

Table 2-5: Calculated lead concentration in blood, amount originating from air exposure and amount from food intake as well as calculated air lead exposure, results from compartment model calculations (Method from Fact).

M.AIR - middle lead concentration in air to which each person is exposed
E.INH - inhaled lead from air to blood
E.FOOD - lead-blood concentration from food
TOTAL - total lead-blood concentration
N.PERS - number of persons
% INH - per cent lead to blood from inhalation

METHOD FROM FACT				
	M.AIR	E.INH	E.FOOD	TOTAL
1XNFI	.40946	1.49825	4.39554	5.89379
2XNFJ	.37508	1.37246	4.39554	5.76801
3XNFK	.31615	1.15681	4.39554	5.55235
4XNOIL	.17412	.63714	4.30469	4.94182
5XNOJ	.14308	.52355	4.30469	4.82824
6XNOK	.08415	.30790	4.34776	4.65566
7XNEI	.64529	2.36118	4.34776	6.70894
8XNEJ	.61092	2.23540	4.34776	6.58316
9XNFKP	.12833	.46958	4.34776	4.81735
10XNOKP	.12550	.45922	4.34776	4.80698
11XNEJP	.65050	2.38024	4.34776	6.72800
12XNUI	.16550	.60558	4.09266	4.69824
13XNUJ	.11342	.41500	4.09266	4.50767
14XNUK	.02488	.09102	4.09266	4.18368
15XMFI	.42321	2.43345	4.43862	6.87207
16XMFJ	.38883	2.23579	4.43862	6.67441
17XMFK	.31958	1.83760	4.43862	6.27623
18XMOI	.19121	1.09945	4.30469	5.40413
19XMOJ	.15683	.90179	4.30469	5.20648
20XMOK	.08758	.50360	4.30469	4.80829
21XMEI	.65904	3.78949	4.39554	8.18503
22XMEJ	.62467	3.59183	4.39554	7.98738
23XMFKP	.36083	2.07479	4.39554	6.47034
24XMOKP	.12883	.74079	4.35247	5.09326
25XMEJP	.66383	3.81704	4.43862	8.25566
26XMUI	.18300	1.05225	4.11207	5.16432
27XMUJ	.13092	.75277	4.11207	4.86485
28XMUK	.02925	.16819	4.11207	4.28026
29YNFI	.34512	1.38913	4.72290	6.11202
30YNFJ	.30971	1.24658	4.72290	5.96947
31YNFK	.24900	1.00222	4.72290	5.72512
32YNOI	.17633	.70974	4.63697	5.34671
33YNOJ	.14092	.56719	4.63697	5.20416
34YNOK	.08021	.32284	4.63697	4.95981
35YNEIL	.50783	2.04403	4.91641	6.96044
36YNEJ	.47512	1.91238	4.69621	6.60858
37YNFKP	.27952	1.12507	4.69621	5.82128
38YNOKP	.11073	.44568	4.66366	5.10935
39YNEJP	.50388	2.02810	4.72875	6.75685
40YNUI	.16696	.67201	4.35738	5.02939
41YNUJ	.12321	.49591	4.38407	4.87999
42YNUK	.04800	.19320	4.38407	4.57727
43YMFI	.35929	2.27252	4.72875	7.00127
44YMFJ	.32388	2.04851	4.72875	6.77726

Table 2-5, cont.

	METHOD FROM FACT			
	M.AIR	E.INH	E.FOOD	TOTAL
45YMFK	.25254	1.59733	4.72875	6.32607
46YMOI	.19050	1.20491	4.63697	5.84189
47YMOJ	.15508	.98090	4.63697	5.61788
48YMOK	.08375	.52972	4.63697	5.16669
49YMEIL	.52142	3.29796	4.91641	8.21437
50YMEJ	.48954	3.09635	4.69621	7.79256
51YMDKP	.28296	1.78971	4.69621	6.48592
52YMOKP	.11417	.72210	4.69621	5.41831
53YMEJP	.51787	3.27556	4.69621	7.97177
54YMUI	.18446	1.16670	4.65781	5.82451
55YMUJL	.14071	.88998	4.65781	5.54779
56YMUK	.05237	.33127	4.65781	4.98908
57CNSI	.32754	2.99626	7.28833	10.28459
58CNSJ	.28379	2.59605	7.28833	9.88438
59CNSK	.20942	1.91569	7.28833	9.20401
60BNI	.15529	2.38114	5.29602	7.67716
61BNJ	.11883	1.82211	5.29602	7.11813
62RNI	.18113	.58322	2.97410	3.55733
63RNJ	.12800	.41216	2.97410	3.38626
64RNK	.03769	.12135	2.97410	3.09546
65RNKH	.01500	.04830	2.97410	3.02240
66RMI	.19737	.72634	2.27208	2.99842
67RMJ	.14425	.53084	2.27208	2.80292
68RMK	.04175	.15364	2.27208	2.42572
69RMKH	.02000	.07360	2.27208	2.34568
70CMSI	.30557	3.86552	6.46173	10.32725
71CMSJ	.29712	3.75863	6.46173	10.22036
72CMSK	.21275	2.69129	6.46173	9.15302
73BMI	.16988	3.38632	6.92803	10.31435
74BMJ	.13263	2.64371	6.92803	9.57173
75BNK	.04177	.64049	6.92803	7.56851
76BMK	.05383	1.07308	6.92803	8.00110

APPENDIX 3

Assumptions used and results found when using
the model in Sørumsand in 1984.

Table 3-1: The amount of time spent in each microenvironment by each of the population subgroups, input to compartment model.

SØRUMSAND 1984															
1XNFI	.3	.3	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.5	.0	.0	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
2XNFJ	.0	.3	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.5	.0	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
3XNFK	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
4XNOIL	.3	.3	.0	.0	.0	1.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
	15.5	.0	.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
5XNOJ	.0	.3	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.5	.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
6XNOK	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
7XNEI	.3	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.5	.0	.0	.0	.0	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
8XNEJ	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.5	.0	.0	.0	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
9XNFKP	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	1.0	.0	.0
10XNOKP	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	1.0	.0	.0
11XNEJP	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.0	.0	.0	.0	.0	.5	.0	.0	.0	5.5	.0	1.0	.0	.0
12XNUI	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	21.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
13XNUJ	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	21.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
14XNUK	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	21.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
15XMFI	.3	.3	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.5	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
16XMFJ	.0	.3	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.5	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
17XMFK	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	.5	.0	.0	5.5	.0	.0	.5	.0	.0
18XMOI	.3	.3	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.5	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
19XMOJ	.0	.3	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.5	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
20XMOK	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	.5	.0	5.5	.0	.0	.0	.5	.0	.0
21XMEI	.3	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.5	.0	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
22XMEJ	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.5	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
23XMFKP	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.0	.5	.0	.0	5.5	.0	.0	1.0	.0	.0
24XMOKP	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.0	.5	.0	5.5	.0	.0	.0	1.0	.0	.0
25XMEJP	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.0	.0	.5	.0	.0	.0	5.5	.0	1.0	.0	.0
26XMUI	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	21.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
27XMUJ	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	21.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
28XMUK	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	21.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
29YNFI	.3	.4	.5	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	17.0	.0	.0	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
30YNFJ	.0	.4	.5	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.0	.0	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
31YNFK	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	17.0	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
32YNOI	.3	.4	.5	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	17.0	.0	.0	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
33YNOJ	.0	.4	.5	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.0	.0	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
34YNOK	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	17.0	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
35YNEIL	.3	.4	.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.3	.0	.0	.0	.0	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
36YNEJ	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.3	.0	.0	.0	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
37YNFKP	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.5	.5	.0
38YNOKP	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.5	.5	.0
39YNEJP	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.8	.0	.0	.0	.0	1.0	.0	.0	.0	4.0	.0	.5	.5	.0

Table 3-1, cont.

SØRUMSAND 1984															
40YNUI	.5	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	21.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
41YNUJ	.0	1.0	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	21.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
42YNUK	.0	1.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	21.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
43YMFI	.3	.4	.5	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	17.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
44YMFJ	.0	.4	.5	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	17.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
45YMFK	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	17.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
46YMOI	.3	.4	.5	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	17.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
47YMOJ	.0	.4	.5	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	17.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
48YMOK	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	17.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
49YMEIL	.3	.4	.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.3	.0	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
50YMEJ	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	17.3	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
51YMDKP	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	1.0	.0	.0	4.0	.0	.0	.5	.5	.0
52YMOKP	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	1.0	.0	4.0	.0	.0	.0	.5	.5	.0
53YMEJP	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.8	.0	1.0	.0	.0	.0	4.0	.0	.5	.5	.0
54YMUI	.5	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	21.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
55YMUJL	.0	1.0	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	21.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
56YMUK	.0	1.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	21.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
57CNSI	.0	2.5	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.0	.0	.0	.0	.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.5
58CNSJ	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.0	.0	.0	.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.5
59CNSK	.0	.0	.0	.0	1.5	.0	.0	2.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.0	.0	.0	.0	.5	.0	.0	3.0	.0	.0	.5	.0	.0
60BNI	4.0	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	17.5	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
61BNJ	.0	1.0	.5	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.5	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
62RNI	.0	3.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	19.5	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
63RNJ	.0	.0	.5	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	19.5	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
64RNK	.0	.0	.5	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	19.5	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
65RNKH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	24.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
66RMI	.0	3.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	19.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
67RMJ	.0	.0	.5	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	19.5	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
68RMK	.0	.0	.5	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	19.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0
69RMKH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	24.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
70CMSI	.0	2.5	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.0	.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.0
71CMSJ	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.5
72CMSK	.0	.0	.0	.0	1.5	.0	.0	2.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.0	.5	.0	.0	3.0	.0	.0	.5	.0	.0
73BMI	4.0	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	19.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
74BMJ	.0	1.0	.5	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	19.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
75BNK	.0	1.0	.5	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	17.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
76BMK	.0	1.0	.5	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	17.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0

Table 3-2: Biological coefficients used in model prediction (see Appendix 1 for abbreviations) for each population subgroup, input to compartment model.

	MA	MB	MC	MD	ME	MF	BRJ	M10J	MN	FR	RF
1XNFI	190.	240.	50.	120.	480.	80.	25.	55.	2100.	35.	15.
2XNFJ	190.	240.	50.	120.	480.	80.	25.	55.	3000.	35.	15.
3XNFK	190.	240.	50.	120.	480.	80.	25.	55.	300.	35.	15.
4XNOIL	180.	230.	50.	120.	420.	80.	25.	55.	2900.	35.	15.
5XNOJ	180.	230.	50.	120.	420.	80.	25.	55.	2000.	35.	15.
6XNOK	190.	240.	50.	120.	420.	80.	25.	55.	900.	35.	15.
7XNEI	190.	240.	50.	120.	420.	80.	25.	55.	1100.	35.	15.
8XNEJ	190.	240.	50.	120.	420.	80.	25.	55.	1400.	35.	15.
9XNFKP	190.	240.	50.	120.	420.	80.	25.	55.	900.	35.	15.
10XNOKP	190.	240.	50.	120.	420.	80.	25.	55.	1200.	35.	15.
11XNEJP	190.	240.	50.	120.	420.	80.	25.	55.	1200.	35.	15.
12XNUI	180.	250.	50.	90.	480.	80.	25.	55.	600.	35.	15.
13XNUJ	180.	250.	50.	90.	480.	80.	25.	55.	600.	35.	15.
14XNUK	180.	250.	50.	90.	480.	80.	25.	55.	600.	35.	15.
15XMFI	200.	250.	50.	120.	480.	80.	25.	55.	1600.	55.	15.
16XMFJ	200.	250.	50.	120.	480.	80.	25.	55.	2300.	55.	15.
17XMFK	200.	250.	50.	120.	480.	80.	25.	55.	200.	55.	15.
18XMOI	180.	230.	50.	120.	420.	80.	25.	55.	2100.	55.	15.
19XMOJ	180.	230.	50.	120.	420.	80.	25.	55.	1500.	55.	15.
20XMOK	180.	230.	50.	120.	420.	80.	25.	55.	600.	55.	15.
21XMEI	190.	240.	50.	120.	480.	80.	25.	55.	900.	55.	15.
22XMEJ	190.	240.	50.	120.	480.	80.	25.	55.	1100.	55.	15.
23XMFKP	190.	240.	50.	120.	480.	80.	25.	55.	600.	55.	15.
24XMOKP	180.	230.	50.	120.	480.	80.	25.	55.	1000.	55.	15.
25XMEJP	200.	250.	50.	120.	480.	80.	25.	55.	1000.	55.	15.
26XMUI	180.	260.	50.	90.	480.	80.	25.	55.	400.	55.	15.
27XMUJ	180.	260.	50.	90.	480.	80.	25.	55.	400.	55.	15.
28XMUK	180.	260.	50.	90.	480.	80.	25.	55.	400.	55.	15.
29YNFI	130.	160.	50.	90.	360.	60.	20.	40.	1100.	35.	15.
30YNFJ	130.	160.	50.	90.	360.	60.	20.	40.	900.	35.	15.
31YNFK	130.	160.	50.	90.	360.	60.	20.	40.	300.	35.	15.
32YNOI	120.	140.	50.	90.	360.	60.	20.	40.	2400.	35.	15.
33YNOJ	120.	140.	50.	90.	360.	60.	20.	40.	1200.	35.	15.
34YNOK	120.	140.	50.	90.	360.	60.	20.	40.	900.	35.	15.
35YNEIL	130.	150.	50.	90.	360.	80.	20.	40.	600.	35.	15.
36YNEJ	130.	150.	50.	90.	360.	60.	20.	40.	900.	35.	15.
37YNFKP	130.	150.	50.	90.	360.	60.	20.	40.	600.	35.	15.
38YNOKP	120.	150.	50.	90.	360.	60.	20.	40.	1200.	35.	15.
39YNEJP	140.	150.	50.	90.	360.	60.	20.	40.	600.	35.	15.
40YNUI	110.	150.	50.	70.	360.	60.	20.	40.	5600.	35.	15.
41YNUJ	110.	160.	50.	70.	360.	60.	20.	40.	2500.	35.	15.
42YNUK	110.	160.	50.	70.	360.	60.	20.	40.	1600.	35.	15.
43YMFI	140.	150.	50.	90.	360.	60.	20.	40.	900.	55.	15.
44YMFJ	140.	150.	50.	90.	360.	60.	20.	40.	600.	55.	15.
45YMFK	140.	150.	50.	90.	360.	60.	20.	40.	200.	55.	15.
46YMOI	120.	140.	50.	90.	360.	60.	20.	40.	1600.	55.	15.
47YMOJ	120.	140.	50.	90.	360.	60.	20.	40.	800.	55.	15.
48YMOK	120.	140.	50.	90.	360.	60.	20.	40.	600.	55.	15.
49YMEIL	130.	150.	50.	90.	360.	80.	20.	40.	400.	55.	15.
50YMEJ	130.	150.	50.	90.	360.	60.	20.	40.	600.	55.	15.
51YMDKP	130.	150.	50.	90.	360.	60.	20.	40.	400.	55.	15.
52YMOKP	130.	150.	50.	90.	360.	60.	20.	40.	800.	55.	15.
53YMEJP	130.	150.	50.	90.	360.	60.	20.	40.	400.	55.	15.
54YMUI	110.	160.	50.	90.	360.	60.	20.	40.	3400.	55.	15.
55YMUJL	110.	160.	50.	90.	360.	60.	20.	40.	1500.	55.	15.
56YMUK	110.	160.	50.	90.	360.	60.	20.	40.	900.	55.	15.
57CNSI	100.	230.	30.	80.	550.	40.	25.	22.	6000.	35.	15.
58CNSJ	100.	230.	30.	80.	550.	40.	25.	22.	5000.	35.	15.
59CNSK	100.	230.	30.	80.	550.	40.	25.	22.	2000.	35.	15.
60BNI	50.	100.	20.	20.	400.	20.	20.	15.	3000.	50.	15.
61BNJ	50.	100.	20.	20.	400.	20.	20.	15.	1500.	50.	15.
62RNI	70.	150.	30.	50.	100.	40.	16.	40.	2000.	35.	15.
63RNJ	70.	150.	30.	50.	100.	40.	16.	40.	2000.	35.	15.
64RNK	70.	150.	30.	50.	100.	40.	16.	40.	1500.	35.	15.
65RNKH	70.	150.	30.	50.	100.	40.	16.	40.	4000.	35.	15.
66RMI	70.	150.	30.	50.	100.	40.	16.	55.	1000.	55.	15.
67RMJ	70.	150.	30.	50.	100.	40.	16.	55.	1500.	55.	15.
68RMK	70.	150.	30.	50.	100.	40.	16.	55.	500.	55.	15.
69RMKH	70.	150.	30.	50.	100.	40.	16.	55.	4000.	55.	15.
70CMSI	100.	230.	30.	80.	550.	40.	25.	25.	3000.	55.	15.
71CMSJ	100.	230.	30.	80.	550.	40.	25.	25.	2500.	55.	15.
72CMSK	100.	230.	30.	80.	550.	40.	25.	25.	1000.	55.	15.
73BMI	50.	100.	20.	20.	400.	20.	20.	15.	1000.	65.	20.
74BMJ	50.	100.	20.	20.	400.	20.	20.	15.	500.	65.	20.
75BNK	50.	100.	20.	20.	400.	20.	20.	15.	500.	50.	20.
76BMK	50.	100.	20.	20.	400.	20.	20.	15.	500.	65.	20.

Table 3-3: Lead intake from food (µg/day) for each population subgroup, input to compartment model.

	INTAKE FROM FOOD (µg/day)						
	POTATO	CEREAL	FRUIT	MEAT	MILK	VTABLE	BACKGR
1	4.8	5.0	10.3	12.7	4.1	7.7	15.0
2	4.8	5.0	10.3	12.7	4.1	7.7	15.0
3	4.8	5.0	10.3	12.7	4.1	7.7	15.0
4	4.5	4.7	10.3	12.7	3.6	7.7	15.0
5	4.5	4.7	10.3	12.7	3.6	7.7	15.0
6	4.8	5.0	10.3	12.7	3.6	7.7	15.0
7	4.8	5.0	10.3	12.7	3.6	7.7	15.0
8	4.8	5.0	10.3	12.7	3.6	7.7	15.0
9	4.8	5.0	10.3	12.7	3.6	7.7	15.0
10	4.8	5.0	10.3	12.7	3.6	7.7	15.0
11	4.8	5.0	10.3	12.7	3.6	7.7	15.0
12	4.5	5.2	10.3	9.5	4.1	7.7	15.0
13	4.5	5.2	10.3	9.5	4.1	7.7	15.0
14	4.5	5.2	10.3	9.5	4.1	7.7	15.0
15	5.0	5.2	10.3	12.7	4.1	7.7	15.0
16	5.0	5.2	10.3	12.7	4.1	7.7	15.0
17	5.0	5.2	10.3	12.7	4.1	7.7	15.0
18	4.5	4.7	10.3	12.7	3.6	7.7	15.0
19	4.5	4.7	10.3	12.7	3.6	7.7	15.0
20	4.5	4.7	10.3	12.7	3.6	7.7	15.0
21	4.8	5.0	10.3	12.7	4.1	7.7	15.0
22	4.8	5.0	10.3	12.7	4.1	7.7	15.0
23	4.8	5.0	10.3	12.7	4.1	7.7	15.0
24	4.5	4.7	10.3	12.7	4.1	7.7	15.0
25	5.0	5.2	10.3	12.7	4.1	7.7	15.0
26	4.5	5.4	10.3	9.5	4.1	7.7	15.0
27	4.5	5.4	10.3	9.5	4.1	7.7	15.0
28	4.5	5.4	10.3	9.5	4.1	7.7	15.0
29	3.3	3.3	10.3	9.5	3.0	5.7	15.0
30	3.3	3.3	10.3	9.5	3.0	5.7	15.0
31	3.3	3.3	10.3	9.5	3.0	5.7	15.0
32	3.0	2.9	10.3	9.5	3.0	5.7	15.0
33	3.0	2.9	10.3	9.5	3.0	5.7	15.0
34	3.0	2.9	10.3	9.5	3.0	5.7	15.0
35	3.3	3.1	10.3	9.5	3.0	7.7	15.0
36	3.3	3.1	10.3	9.5	3.0	5.7	15.0
37	3.3	3.1	10.3	9.5	3.0	5.7	15.0
38	3.0	3.1	10.3	9.5	3.0	5.7	15.0
39	3.5	3.1	10.3	9.5	3.0	5.7	15.0
40	2.8	3.1	10.3	7.4	3.0	5.7	15.0
41	2.8	3.3	10.3	7.4	3.0	5.7	15.0
42	2.8	3.3	10.3	7.4	3.0	5.7	15.0
43	3.5	3.1	10.3	9.5	3.0	5.7	15.0
44	3.5	3.1	10.3	9.5	3.0	5.7	15.0
45	3.5	3.1	10.3	9.5	3.0	5.7	15.0
46	3.0	2.9	10.3	9.5	3.0	5.7	15.0
47	3.0	2.9	10.3	9.5	3.0	5.7	15.0
48	3.0	2.9	10.3	9.5	3.0	5.7	15.0
49	3.3	3.1	10.3	9.5	3.0	7.7	15.0
50	3.3	3.1	10.3	9.5	3.0	5.7	15.0
51	3.3	3.1	10.3	9.5	3.0	5.7	15.0
52	3.3	3.1	10.3	9.5	3.0	5.7	15.0
53	3.3	3.1	10.3	9.5	3.0	5.7	15.0
54	2.8	3.3	10.3	9.5	3.0	5.7	15.0
55	2.8	3.3	10.3	9.5	3.0	5.7	15.0
56	2.8	3.3	10.3	9.5	3.0	5.7	15.0
57	2.5	4.7	6.2	8.5	4.7	3.8	15.0
58	2.5	4.7	6.2	8.5	4.7	3.8	15.0
59	2.5	4.7	6.2	8.5	4.7	3.8	15.0
60	1.3	2.1	4.1	2.1	3.4	1.9	15.0
61	1.3	2.1	4.1	2.1	3.4	1.9	15.0
62	1.8	3.1	6.2	5.3	.8	3.8	15.0
63	1.8	3.1	6.2	5.3	.8	3.8	15.0
64	1.8	3.1	6.2	5.3	.8	3.8	15.0
65	1.8	3.1	6.2	5.3	.8	3.8	15.0
66	1.8	3.1	6.2	5.3	.8	3.8	15.0
67	1.8	3.1	6.2	5.3	.8	3.8	15.0
68	1.8	3.1	6.2	5.3	.8	3.8	15.0
69	1.8	3.1	6.2	5.3	.8	3.8	15.0
70	2.5	4.7	6.2	8.5	4.7	3.8	15.0
71	2.5	4.7	6.2	8.5	4.7	3.8	15.0
72	2.5	4.7	6.2	8.5	4.7	3.8	15.0
73	1.3	2.1	4.1	2.1	3.4	1.9	15.0
74	1.3	2.1	4.1	2.1	3.4	1.9	15.0
75	1.3	2.1	4.1	2.1	3.4	1.9	15.0
76	1.3	2.1	4.1	2.1	3.4	1.9	15.0

Table 3-4: Calculated lead exposure to blood (percent absorbed) for each populations subgroup (Transfact Method).

EXPOSURE TO BLOOD (TRANSFACT METHOD)								
	POTATO	CEREAL	MEAT	MILK	FRUIT	VTABLE	BACKGR	SUM
1	.3	.3	.8	.3	.6	.5	.4	3.2
2	.3	.3	.8	.3	.6	.5	.4	3.2
3	.3	.3	.8	.3	.6	.5	.4	3.2
4	.3	.3	.8	.2	.6	.5	.4	3.1
5	.3	.3	.8	.2	.6	.5	.4	3.1
6	.3	.3	.8	.2	.6	.5	.4	3.2
7	.3	.3	.8	.2	.6	.5	.4	3.2
8	.3	.3	.8	.2	.6	.5	.4	3.2
9	.3	.3	.8	.2	.6	.5	.4	3.2
10	.3	.3	.8	.2	.6	.5	.4	3.2
11	.3	.3	.8	.2	.6	.5	.4	3.2
12	.3	.3	.6	.3	.6	.5	.4	3.0
13	.3	.3	.6	.3	.6	.5	.4	3.0
14	.3	.3	.6	.3	.6	.5	.4	3.0
15	.3	.3	.8	.3	.6	.5	.4	3.2
16	.3	.3	.8	.3	.6	.5	.4	3.2
17	.3	.3	.8	.3	.6	.5	.4	3.2
18	.3	.3	.8	.2	.6	.5	.4	3.1
19	.3	.3	.8	.2	.6	.5	.4	3.1
20	.3	.3	.8	.2	.6	.5	.4	3.1
21	.3	.3	.8	.3	.6	.5	.4	3.2
22	.3	.3	.8	.3	.6	.5	.4	3.2
23	.3	.3	.8	.3	.6	.5	.4	3.2
24	.3	.3	.8	.3	.6	.5	.4	3.2
25	.3	.3	.8	.3	.6	.5	.4	3.2
26	.3	.3	.6	.3	.6	.5	.4	3.0
27	.3	.3	.6	.3	.6	.5	.4	3.0
28	.3	.3	.6	.3	.6	.5	.4	3.0
29	.3	.3	.8	.3	.9	.5	.4	3.4
30	.3	.3	.8	.3	.9	.5	.4	3.4
31	.3	.3	.8	.3	.9	.5	.4	3.4
32	.3	.2	.8	.3	.9	.5	.4	3.4
33	.3	.2	.8	.3	.9	.5	.4	3.4
34	.3	.2	.8	.3	.9	.5	.4	3.4
35	.3	.3	.8	.3	.9	.7	.4	3.6
36	.3	.3	.8	.3	.9	.5	.4	3.4
37	.3	.3	.8	.3	.9	.5	.4	3.4
38	.3	.3	.8	.3	.9	.5	.4	3.4
39	.3	.3	.8	.3	.9	.5	.4	3.4
40	.2	.3	.6	.3	.9	.5	.4	3.2
41	.2	.3	.6	.3	.9	.5	.4	3.2
42	.2	.3	.6	.3	.9	.5	.4	3.2
43	.3	.3	.8	.3	.9	.5	.4	3.4
44	.3	.3	.8	.3	.9	.5	.4	3.4
45	.3	.3	.8	.3	.9	.5	.4	3.4
46	.3	.2	.8	.3	.9	.5	.4	3.4
47	.3	.2	.8	.3	.9	.5	.4	3.4
48	.3	.2	.8	.3	.9	.5	.4	3.4
49	.3	.3	.8	.3	.9	.7	.4	3.6
50	.3	.3	.8	.3	.9	.5	.4	3.4
51	.3	.3	.8	.3	.9	.5	.4	3.4
52	.3	.3	.8	.3	.9	.5	.4	3.4
53	.3	.3	.8	.3	.9	.5	.4	3.4
54	.2	.3	.8	.3	.9	.5	.4	3.4
55	.2	.3	.8	.3	.9	.5	.4	3.4
56	.2	.3	.8	.3	.9	.5	.4	3.4
57	.4	.7	1.3	.7	1.0	.6	.4	5.2
58	.4	.7	1.3	.7	1.0	.6	.4	5.2
59	.4	.7	1.3	.7	1.0	.6	.4	5.2
60	.3	.5	.5	.8	.9	.4	.4	3.8
61	.3	.5	.5	.8	.9	.4	.4	3.8
62	.2	.3	.5	.1	.5	.3	.4	2.2
63	.2	.3	.5	.1	.5	.3	.4	2.2
64	.2	.3	.5	.1	.5	.3	.4	2.2
65	.2	.3	.5	.1	.5	.3	.4	2.2
66	.1	.2	.3	.1	.4	.2	.4	1.7
67	.1	.2	.3	.1	.4	.2	.4	1.7
68	.1	.2	.3	.1	.4	.2	.4	1.7
69	.1	.2	.3	.1	.4	.2	.4	1.7
70	.3	.7	1.2	.6	.9	.5	.4	4.6
71	.3	.7	1.2	.6	.9	.5	.4	4.6
72	.3	.7	1.2	.6	.9	.5	.4	4.6
73	.4	.6	.6	1.0	1.3	.6	.4	5.0
74	.4	.6	.6	1.0	1.3	.6	.4	5.0
75	.4	.6	.6	1.0	1.3	.6	.4	5.0
76	.4	.6	.6	1.0	1.3	.6	.4	5.0

Table 3-5: Calculated lead concentration in blood, amount originating from air exposure and amount from food intake as well as calculated air lead exposure, results from compartment model calculations (Method from Fact).

M.AIR - middle lead concentration in air to which each person is exposed
E.INH - inhaled lead from air to blood
E.FOOD - lead-blood concentration from food
TOTAL - total lead-blood concentration
N.PERS - number of persons
% INH - per cent lead to blood from inhalation

METHOD FROM FACT				
	M.AIR	E.INH	E.FOOD	TOTAL
1XNFI	.35500	1.29898	3.18897	4.48795
2XNFJ	.30662	1.12197	3.18897	4.31094
3XNFK	.29250	1.07028	3.18897	4.25925
4XNOIL	.12956	.47408	3.12840	3.60248
5XNOJ	.08327	.30470	3.12840	3.43309
6XNOK	.06915	.25301	3.15712	3.41013
7XNEI	.58967	2.15764	3.15712	5.31476
8XNEJ	.54129	1.98064	3.15712	5.13775
9XNFKP	.09477	.34678	3.15712	3.50389
10XNOKP	.09394	.34373	3.15712	3.50084
11XNEJP	.56567	2.06983	3.15712	5.22694
12XNUI	.11342	.41500	2.98705	3.40205
13XNUJ	.04133	.15124	2.98705	3.13829
14XNUK	.01967	.07196	2.98705	3.05901
15XMFI	.36875	2.12031	3.21769	5.33800
16XMFJ	.32037	1.84216	3.21769	5.05984
17XMFK	.29387	1.68978	3.21769	4.90747
18XMOI	.14540	.83603	3.12840	3.96442
19XMOJ	.09702	.55787	3.12840	3.68627
20XMOK	.07052	.40549	3.12840	3.53389
21XMEI	.60342	3.46965	3.18897	6.65862
22XMEJ	.55504	3.19149	3.18897	6.38046
23XMFKP	.31862	1.83209	3.18897	5.02106
24XMOKP	.09527	.54781	3.16025	3.70806
25XMEJP	.57900	3.32925	3.21769	6.54694
26XMUI	.13092	.75277	2.99999	3.75276
27XMUJ	.05883	.33829	2.99999	3.33828
28XMUK	.02142	.12315	2.99999	3.12314
29YNFI	.29308	1.17966	3.43583	4.61549
30YNFJ	.24325	.97908	3.43583	4.41491
31YNFK	.22871	.92055	3.43583	4.35638
32YNOI	.13062	.52577	3.37855	3.90431
33YNOJ	.08079	.32519	3.37855	3.70374
34YNOK	.06625	.26666	3.37855	3.64521
35YNEIL	.45804	1.84362	3.58319	5.42681
36YNEJ	.40942	1.64790	3.41804	5.06594
37YNFKP	.24767	.99686	3.41804	4.41490
38YNOKP	.08521	.34296	3.39634	3.73931
39YNEJP	.42796	1.72253	3.43973	5.16227
40YNUI	.11488	.46237	3.19216	3.65453
41YNUJ	.05321	.21416	3.20995	3.42411
42YNUK	.03508	.14121	3.20995	3.35116
43YMFI	.30725	1.94336	3.43973	5.38309
44YMFJ	.25742	1.62816	3.43973	5.06789

Table 3-5, cont.

METHOD FROM FACT				
	M.AIR	E.INH	E.FOOD	TOTAL
45YMFK	.23012	1.45554	3.43973	4.89527
46YMOI	.14479	.91581	3.37855	4.29436
47YMOJ	.09496	.60061	3.37855	3.97916
48YMOK	.06767	.42799	3.37855	3.80654
49YMEIL	.47162	2.98303	3.58319	6.56622
50YMEJ	.42383	2.68075	3.41804	6.09878
51YMDKP	.24904	1.57519	3.41804	4.99323
52YMOKP	.08658	.54764	3.41804	3.96568
53YMEJP	.44196	2.79539	3.41804	6.21342
54YMUI	.13238	.83727	3.39244	4.22971
55YMUJL	.07071	.44723	3.39244	3.83967
56YMUK	.03683	.23297	3.39244	3.62541
57CNSI	.25900	2.36926	5.16678	7.53605
58CNSJ	.19879	1.81849	5.16678	6.98528
59CNSK	.18025	1.64888	5.16678	6.81566
60BNI	.11050	1.69433	3.81839	5.51272
61BNJ	.05612	.86058	3.81839	4.67897
62RNI	.12383	.39874	2.21208	2.61082
63RNJ	.05071	.16328	2.21208	2.37536
64RNK	.02821	.09083	2.21208	2.30291
65RNKH	.01000	.03220	2.21208	2.24428
66RMI	.14008	.51551	1.71788	2.23338
67RMJ	.06696	.24641	1.71788	1.96428
68RMK	.02983	.10979	1.71788	1.82766
69RMKH	.01200	.04416	1.71788	1.76204
70CMSI	.25260	3.19534	4.59477	7.79010
71CMSJ	.21212	2.68338	4.59477	7.27815
72CMSK	.18158	2.29703	4.59477	6.89180
73BMI	.12478	2.48737	4.95785	7.44522
74BMJ	.06949	1.38517	4.95785	6.34302
75BNK	.02779	.42614	4.95785	5.38399
76BMK	.03800	.75747	4.95785	5.71531

APPENDIX 4

Assumptions used and results found when using
the model in Holmestrand in 1983.

Table 4-1: The amount of time spent in each microenvironment by each of the population subgroups, input to compartment model.

HOLMESTRAND 1983															
1XNFI	.3	.3	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.5	.0	.0	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
2XNFJ	.0	.3	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.5	.0	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
3XNFK	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
4XNOIL	.3	.3	.0	.0	.0	1.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
	15.5	.0	.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
5XNOJ	.0	.3	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.5	.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
6XNOK	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
7XNEI	.3	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.5	.0	.0	.0	.0	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
8XNEJ	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.5	.0	.0	.0	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
9XNFKP	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	1.0	.0	.0
10XNOKP	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	1.0	.0	.0
11XNEJP	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.0	.0	.0	.0	.0	.5	.0	.0	.0	5.5	.0	1.0	.0	.0
12XNUI	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	21.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
13XNUJ	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	21.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
14XNUK	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	21.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
15XMFI	.3	.3	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.5	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
16XMFJ	.0	.3	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.5	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
17XMFK	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	.5	.0	.0	5.5	.0	.0	.5	.0	.0
18XMOI	.3	.3	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.5	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
19XMOJ	.0	.3	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.5	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
20XMOK	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	.5	.0	5.5	.0	.0	.0	.5	.0	.0
21XMEI	.3	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.5	.0	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
22XMEJ	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.5	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
23XMFKP	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.0	.5	.0	.0	5.5	.0	.0	1.0	.0	.0
24XMOKP	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.0	.5	.0	5.5	.0	.0	.0	1.0	.0	.0
25XMEJP	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.0	.0	.5	.0	.0	.0	5.5	.0	1.0	.0	.0
26XMUI	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	21.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
27XMUJ	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	21.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
28XMUK	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	21.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
29YNFI	.3	.4	.5	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	17.0	.0	.0	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
30YNFJ	.0	.4	.5	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.0	.0	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
31YNFK	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	17.0	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
32YNOI	.3	.4	.5	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	17.0	.0	.0	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
33YNOJ	.0	.4	.5	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.0	.0	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
34YNOK	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	17.0	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
35YNEIL	.3	.4	.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.3	.0	.0	.0	.0	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
36YNEJ	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.3	.0	.0	.0	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
37YNFKP	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.5	.5	.0
38YNOKP	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.5	.5	.0
39YNEJP	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.8	.0	.0	.0	.0	1.0	.0	.0	.0	4.0	.0	.5	.5	.0

Table 4-1, cont.

HOLMESTRAND 1983															
40YNUI	.5	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	21.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
41YNUJ	.0	1.0	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	21.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
42YNUK	.0	1.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	21.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
43YMFI	.3	.4	.5	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	17.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
44YMFJ	.0	.4	.5	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	17.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
45YMFK	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	17.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
46YMOI	.3	.4	.5	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	17.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
47YMOJ	.0	.4	.5	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	17.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
48YMOK	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	17.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
49YMEIL	.3	.4	.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.3	.0	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
50YMEJ	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	17.3	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
51YMDKP	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	1.0	.0	.0	4.0	.0	.0	.5	.5	.0
52YMOKP	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	1.0	.0	4.0	.0	.0	.0	.5	.5	.0
53YMEJP	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.8	.0	1.0	.0	.0	.0	4.0	.0	.5	.5	.0
54YMUI	.5	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	21.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
55YMUJL	.0	1.0	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	21.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
56YMUK	.0	1.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	21.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
57CNSI	.0	2.5	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.0	.0	.0	.0	.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.5
58CNSJ	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.0	.0	.0	.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.5
59CNSK	.0	.0	.0	.0	1.5	.0	.0	2.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.0	.0	.0	.0	.5	.0	.0	3.0	.0	.0	.5	.0	.0
60BNI	4.0	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	17.5	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
61BNJ	.0	1.0	.5	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.5	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
62RNI	.0	3.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	19.5	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
63RNJ	.0	.0	.5	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	19.5	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
64RNK	.0	.0	.5	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	19.5	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
65RNKH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	24.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
66RMI	.0	3.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	19.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
67RMJ	.0	.0	.5	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	19.5	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
68RMK	.0	.0	.5	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	19.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0
69RMKH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	24.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
70CMSI	.0	2.5	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.0	.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.0
71CMSJ	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.5
72CMSK	.0	.0	.0	.0	1.5	.0	.0	2.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.0	.5	.0	.0	3.0	.0	.0	.5	.0	.0
73BMI	4.0	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	19.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
74BMJ	.0	1.0	.5	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	19.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
75BNK	.0	1.0	.5	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	17.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
76BMK	.0	1.0	.5	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	17.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0

Table 4-2: Biological coefficients used in model prediction (see Appendix 1 for abbreviations) for each population subgroup, input to compartment model.

	MA	MB	MC	MD	ME	MF	BRJ	M10J	MN	FR	RF
1XNFI	190.	240.	50.	120.	480.	80.	25.	55.	2100.	50.	15.
2XNFJ	190.	240.	50.	120.	480.	80.	25.	55.	3000.	50.	15.
3XNFK	190.	240.	50.	120.	480.	80.	25.	55.	300.	50.	15.
4XNOIL	180.	230.	50.	120.	420.	80.	25.	55.	2900.	50.	15.
5XNOJ	180.	230.	50.	120.	420.	80.	25.	55.	2000.	50.	15.
6XNOK	190.	240.	50.	120.	420.	80.	25.	55.	900.	50.	15.
7XNEI	190.	240.	50.	120.	420.	80.	25.	55.	1100.	50.	15.
8XNEJ	190.	240.	50.	120.	420.	80.	25.	55.	1400.	50.	15.
9XNFKP	190.	240.	50.	120.	420.	80.	25.	55.	900.	50.	15.
10XNOKP	190.	240.	50.	120.	420.	80.	25.	55.	1200.	50.	15.
11XNEJP	190.	240.	50.	120.	420.	80.	25.	55.	1200.	50.	15.
12XNUI	180.	250.	50.	90.	480.	80.	25.	55.	600.	50.	15.
13XNUJ	180.	250.	50.	90.	480.	80.	25.	55.	600.	50.	15.
14XNUK	180.	250.	50.	90.	480.	80.	25.	55.	600.	50.	15.
15XMFI	200.	250.	50.	120.	480.	80.	25.	55.	1600.	75.	15.
16XMFJ	200.	250.	50.	120.	480.	80.	25.	55.	2300.	75.	15.
17XMFK	200.	250.	50.	120.	480.	80.	25.	55.	200.	75.	15.
18XMOI	180.	230.	50.	120.	420.	80.	25.	55.	2100.	75.	15.
19XMOJ	180.	230.	50.	120.	420.	80.	25.	55.	1500.	75.	15.
20XMOK	180.	230.	50.	120.	420.	80.	25.	55.	600.	75.	15.
21XMEI	190.	240.	50.	120.	480.	80.	25.	55.	900.	75.	15.
22XMEJ	190.	240.	50.	120.	480.	80.	25.	55.	1100.	75.	15.
23XMFKP	190.	240.	50.	120.	480.	80.	25.	55.	600.	75.	15.
24XMOKP	180.	230.	50.	120.	480.	80.	25.	55.	1000.	75.	15.
25XMEJP	200.	250.	50.	120.	480.	80.	25.	55.	1000.	75.	15.
26XMUI	180.	260.	50.	90.	480.	80.	25.	55.	400.	75.	15.
27XMUJ	180.	260.	50.	90.	480.	80.	25.	55.	400.	75.	15.
28XMUK	180.	260.	50.	90.	480.	80.	25.	55.	400.	75.	15.
29YNFI	130.	160.	50.	90.	360.	60.	20.	40.	1100.	50.	15.
30YNFJ	130.	160.	50.	90.	360.	60.	20.	40.	900.	50.	15.
31YNFK	130.	160.	50.	90.	360.	60.	20.	40.	300.	50.	15.
32YNOI	120.	140.	50.	90.	360.	60.	20.	40.	2400.	50.	15.
33YNOJ	120.	140.	50.	90.	360.	60.	20.	40.	1200.	50.	15.
34YNOK	120.	140.	50.	90.	360.	60.	20.	40.	900.	50.	15.
35YNEIL	130.	150.	50.	90.	360.	80.	20.	40.	600.	50.	15.
36YNEJ	130.	150.	50.	90.	360.	60.	20.	40.	900.	50.	15.
37YNFKP	130.	150.	50.	90.	360.	60.	20.	40.	600.	50.	15.
38YNOKP	120.	150.	50.	90.	360.	60.	20.	40.	1200.	50.	15.
39YNEJP	140.	150.	50.	90.	360.	60.	20.	40.	600.	50.	15.
40YNUI	110.	150.	50.	70.	360.	60.	20.	40.	5600.	50.	15.
41YNUJ	110.	160.	50.	70.	360.	60.	20.	40.	2500.	50.	15.
42YNUK	110.	160.	50.	70.	360.	60.	20.	40.	1600.	50.	15.
43YMFI	140.	150.	50.	90.	360.	60.	20.	40.	900.	75.	15.
44YMFJ	140.	150.	50.	90.	360.	60.	20.	40.	600.	75.	15.
45YMFK	140.	150.	50.	90.	360.	60.	20.	40.	200.	75.	15.
46YMOI	120.	140.	50.	90.	360.	60.	20.	40.	1600.	75.	15.
47YMOJ	120.	140.	50.	90.	360.	60.	20.	40.	800.	75.	15.
48YMOK	120.	140.	50.	90.	360.	60.	20.	40.	600.	75.	15.
49YMEIL	130.	150.	50.	90.	360.	80.	20.	40.	400.	75.	15.
50YMEJ	130.	150.	50.	90.	360.	60.	20.	40.	600.	75.	15.
51YMDKP	130.	150.	50.	90.	360.	60.	20.	40.	400.	75.	15.
52YMOKP	130.	150.	50.	90.	360.	60.	20.	40.	800.	75.	15.
53YMEJP	130.	150.	50.	90.	360.	60.	20.	40.	400.	75.	15.
54YMUI	110.	160.	50.	90.	360.	60.	20.	40.	3400.	75.	15.
55YMUJL	110.	160.	50.	90.	360.	60.	20.	40.	1500.	75.	15.
56YMUK	110.	160.	50.	90.	360.	60.	20.	40.	900.	75.	15.
57CNSI	100.	230.	30.	80.	550.	40.	25.	25.	6000.	50.	15.
58CNSJ	100.	230.	30.	80.	550.	40.	25.	25.	5000.	50.	15.
59CNSK	100.	230.	30.	80.	550.	40.	25.	25.	2000.	50.	15.
60BNI	50.	100.	20.	20.	400.	20.	20.	15.	3000.	60.	15.
61BNJ	50.	100.	20.	20.	400.	20.	20.	15.	1500.	60.	15.
62RNI	70.	150.	30.	50.	100.	40.	16.	40.	2000.	60.	15.
63RNJ	70.	150.	30.	50.	100.	40.	16.	40.	2000.	60.	15.
64RNK	70.	150.	30.	50.	100.	40.	16.	40.	1500.	60.	15.
65RNKH	70.	150.	30.	50.	100.	40.	16.	40.	4000.	60.	15.
66RMI	70.	150.	30.	50.	100.	40.	16.	55.	1000.	85.	15.
67RMJ	70.	150.	30.	50.	100.	40.	16.	55.	1500.	85.	15.
68RMK	70.	150.	30.	50.	100.	40.	16.	55.	500.	85.	15.
69RMKH	70.	150.	30.	50.	100.	40.	16.	55.	4000.	85.	15.
70CMSI	100.	230.	30.	80.	550.	40.	25.	25.	3000.	85.	15.
71CMSJ	100.	230.	30.	80.	550.	40.	25.	25.	2500.	85.	15.
72CMSK	100.	230.	30.	80.	550.	40.	25.	25.	1000.	85.	15.
73BMI	50.	100.	20.	20.	400.	20.	20.	15.	1000.	85.	20.
74BMJ	50.	100.	20.	20.	400.	20.	20.	15.	500.	85.	20.
75BNK	50.	100.	20.	20.	400.	20.	20.	15.	500.	60.	20.
76BMK	50.	100.	20.	20.	400.	20.	20.	15.	500.	85.	20.

Table 4-3: Lead intake from food (µg/day) for each population subgroup, input to compartment model.

	INTAKE FROM FOOD (µg/day)						
	POTATO	CEREAL	FRUIT	MEAT	MILK	VTABLE	BACKGR
1	7.2	7.4	13.8	19.0	6.1	10.2	15.0
2	7.2	7.4	13.8	19.0	6.1	10.2	15.0
3	7.2	7.4	13.8	19.0	6.1	10.2	15.0
4	6.8	7.1	13.8	19.0	5.3	10.2	15.0
5	6.8	7.1	13.8	19.0	5.3	10.2	15.0
6	7.2	7.4	13.8	19.0	5.3	10.2	15.0
7	7.2	7.4	13.8	19.0	5.3	10.2	15.0
8	7.2	7.4	13.8	19.0	5.3	10.2	15.0
9	7.2	7.4	13.8	19.0	5.3	10.2	15.0
10	7.2	7.4	13.8	19.0	5.3	10.2	15.0
11	7.2	7.4	13.8	19.0	5.3	10.2	15.0
12	6.8	7.7	13.8	14.3	6.1	10.2	15.0
13	6.8	7.7	13.8	14.3	6.1	10.2	15.0
14	6.8	7.7	13.8	14.3	6.1	10.2	15.0
15	7.5	7.7	13.8	19.0	6.1	10.2	15.0
16	7.5	7.7	13.8	19.0	6.1	10.2	15.0
17	7.5	7.7	13.8	19.0	6.1	10.2	15.0
18	6.8	7.1	13.8	19.0	5.3	10.2	15.0
19	6.8	7.1	13.8	19.0	5.3	10.2	15.0
20	6.8	7.1	13.8	19.0	5.3	10.2	15.0
21	7.2	7.4	13.8	19.0	6.1	10.2	15.0
22	7.2	7.4	13.8	19.0	6.1	10.2	15.0
23	7.2	7.4	13.8	19.0	6.1	10.2	15.0
24	6.8	7.1	13.8	19.0	6.1	10.2	15.0
25	7.5	7.7	13.8	19.0	6.1	10.2	15.0
26	6.8	8.0	13.8	14.3	6.1	10.2	15.0
27	6.8	8.0	13.8	14.3	6.1	10.2	15.0
28	6.8	8.0	13.8	14.3	6.1	10.2	15.0
29	4.9	5.0	13.8	14.3	4.6	7.7	15.0
30	4.9	5.0	13.8	14.3	4.6	7.7	15.0
31	4.9	5.0	13.8	14.3	4.6	7.7	15.0
32	4.5	4.3	13.8	14.3	4.6	7.7	15.0
33	4.5	4.3	13.8	14.3	4.6	7.7	15.0
34	4.5	4.3	13.8	14.3	4.6	7.7	15.0
35	4.9	4.6	13.8	14.3	4.6	10.2	15.0
36	4.9	4.6	13.8	14.3	4.6	7.7	15.0
37	4.9	4.6	13.8	14.3	4.6	7.7	15.0
38	4.5	4.6	13.8	14.3	4.6	7.7	15.0
39	5.3	4.6	13.8	14.3	4.6	7.7	15.0
40	4.2	4.6	13.8	11.1	4.6	7.7	15.0
41	4.2	5.0	13.8	11.1	4.6	7.7	15.0
42	4.2	5.0	13.8	11.1	4.6	7.7	15.0
43	5.3	4.6	13.8	14.3	4.6	7.7	15.0
44	5.3	4.6	13.8	14.3	4.6	7.7	15.0
45	5.3	4.6	13.8	14.3	4.6	7.7	15.0
46	4.5	4.3	13.8	14.3	4.6	7.7	15.0
47	4.5	4.3	13.8	14.3	4.6	7.7	15.0
48	4.5	4.3	13.8	14.3	4.6	7.7	15.0
49	4.9	4.6	13.8	14.3	4.6	10.2	15.0
50	4.9	4.6	13.8	14.3	4.6	7.7	15.0
51	4.9	4.6	13.8	14.3	4.6	7.7	15.0
52	4.9	4.6	13.8	14.3	4.6	7.7	15.0
53	4.9	4.6	13.8	14.3	4.6	7.7	15.0
54	4.2	5.0	13.8	14.3	4.6	7.7	15.0
55	4.2	5.0	13.8	14.3	4.6	7.7	15.0
56	4.2	5.0	13.8	14.3	4.6	7.7	15.0
57	3.8	7.1	8.3	12.7	7.0	5.1	15.0
58	3.8	7.1	8.3	12.7	7.0	5.1	15.0
59	3.8	7.1	8.3	12.7	7.0	5.1	15.0
60	1.9	3.1	5.5	3.2	5.1	2.6	15.0
61	1.9	3.1	5.5	3.2	5.1	2.6	15.0
62	2.6	4.6	8.3	7.9	1.3	5.1	15.0
63	2.6	4.6	8.3	7.9	1.3	5.1	15.0
64	2.6	4.6	8.3	7.9	1.3	5.1	15.0
65	2.6	4.6	8.3	7.9	1.3	5.1	15.0
66	2.6	4.6	8.3	7.9	1.3	5.1	15.0
67	2.6	4.6	8.3	7.9	1.3	5.1	15.0
68	2.6	4.6	8.3	7.9	1.3	5.1	15.0
69	2.6	4.6	8.3	7.9	1.3	5.1	15.0
70	3.8	7.1	8.3	12.7	7.0	5.1	15.0
71	3.8	7.1	8.3	12.7	7.0	5.1	15.0
72	3.8	7.1	8.3	12.7	7.0	5.1	15.0
73	1.9	3.1	5.5	3.2	5.1	2.6	15.0
74	1.9	3.1	5.5	3.2	5.1	2.6	15.0
75	1.9	3.1	5.5	3.2	5.1	2.6	15.0
76	1.9	3.1	5.5	3.2	5.1	2.6	15.0

Table 4-4: Calculated lead exposure to blood (percent absorbed) for each populations subgroup (Transfact Method).

EXPOSURE TO BLOOD (TRANSFACT METHOD)								
	POTATO	CEREAL	MEAT	MILK	FRUIT	VTABLE	BACKGR	SUM
1	.4	.5	1.2	.4	.9	.6	.4	4.4
2	.4	.5	1.2	.4	.9	.6	.4	4.4
3	.4	.5	1.2	.4	.9	.6	.4	4.4
4	.4	.4	1.2	.3	.9	.6	.4	4.3
5	.4	.4	1.2	.3	.9	.6	.4	4.3
6	.4	.5	1.2	.3	.9	.6	.4	4.3
7	.4	.5	1.2	.3	.9	.6	.4	4.3
8	.4	.5	1.2	.3	.9	.6	.4	4.3
9	.4	.5	1.2	.3	.9	.6	.4	4.3
10	.4	.5	1.2	.3	.9	.6	.4	4.3
11	.4	.5	1.2	.3	.9	.6	.4	4.3
12	.4	.5	.9	.4	.9	.6	.4	4.1
13	.4	.5	.9	.4	.9	.6	.4	4.1
14	.4	.5	.9	.4	.9	.6	.4	4.1
15	.5	.5	1.2	.4	.9	.6	.4	4.4
16	.5	.5	1.2	.4	.9	.6	.4	4.4
17	.5	.5	1.2	.4	.9	.6	.4	4.4
18	.4	.4	1.2	.3	.9	.6	.4	4.3
19	.4	.4	1.2	.3	.9	.6	.4	4.3
20	.4	.4	1.2	.3	.9	.6	.4	4.3
21	.4	.5	1.2	.4	.9	.6	.4	4.4
22	.4	.5	1.2	.4	.9	.6	.4	4.4
23	.4	.5	1.2	.4	.9	.6	.4	4.4
24	.4	.4	1.2	.4	.9	.6	.4	4.4
25	.5	.5	1.2	.4	.9	.6	.4	4.4
26	.4	.5	.9	.4	.9	.6	.4	4.1
27	.4	.5	.9	.4	.9	.6	.4	4.1
28	.4	.5	.9	.4	.9	.6	.4	4.1
29	.4	.4	1.2	.4	1.2	.7	.4	4.7
30	.4	.4	1.2	.4	1.2	.7	.4	4.7
31	.4	.4	1.2	.4	1.2	.7	.4	4.7
32	.4	.4	1.2	.4	1.2	.7	.4	4.6
33	.4	.4	1.2	.4	1.2	.7	.4	4.6
34	.4	.4	1.2	.4	1.2	.7	.4	4.6
35	.4	.4	1.2	.4	1.2	.9	.4	4.9
36	.4	.4	1.2	.4	1.2	.7	.4	4.7
37	.4	.4	1.2	.4	1.2	.7	.4	4.7
38	.4	.4	1.2	.4	1.2	.7	.4	4.7
39	.5	.4	1.2	.4	1.2	.7	.4	4.7
40	.4	.4	1.0	.4	1.2	.7	.4	4.4
41	.4	.4	1.0	.4	1.2	.7	.4	4.4
42	.4	.4	1.0	.4	1.2	.7	.4	4.4
43	.5	.4	1.2	.4	1.2	.7	.4	4.7
44	.5	.4	1.2	.4	1.2	.7	.4	4.7
45	.5	.4	1.2	.4	1.2	.7	.4	4.7
46	.4	.4	1.2	.4	1.2	.7	.4	4.6
47	.4	.4	1.2	.4	1.2	.7	.4	4.6
48	.4	.4	1.2	.4	1.2	.7	.4	4.6
49	.4	.4	1.2	.4	1.2	.9	.4	4.9
50	.4	.4	1.2	.4	1.2	.7	.4	4.7
51	.4	.4	1.2	.4	1.2	.7	.4	4.7
52	.4	.4	1.2	.4	1.2	.7	.4	4.7
53	.4	.4	1.2	.4	1.2	.7	.4	4.7
54	.4	.4	1.2	.4	1.2	.7	.4	4.7
55	.4	.4	1.2	.4	1.2	.7	.4	4.7
56	.4	.4	1.2	.4	1.2	.7	.4	4.7
57	.5	1.0	1.8	1.0	1.1	.7	.4	6.5
58	.5	1.0	1.8	1.0	1.1	.7	.4	6.5
59	.5	1.0	1.8	1.0	1.1	.7	.4	6.5
60	.4	.7	.7	1.2	1.3	.6	.4	5.3
61	.4	.7	.7	1.2	1.3	.6	.4	5.3
62	.2	.4	.7	.1	.7	.4	.4	3.0
63	.2	.4	.7	.1	.7	.4	.4	3.0
64	.2	.4	.7	.1	.7	.4	.4	3.0
65	.2	.4	.7	.1	.7	.4	.4	3.0
66	.2	.3	.5	.1	.5	.3	.4	2.3
67	.2	.3	.5	.1	.5	.3	.4	2.3
68	.2	.3	.5	.1	.5	.3	.4	2.3
69	.2	.3	.5	.1	.5	.3	.4	2.3
70	.5	1.0	1.8	1.0	1.1	.7	.4	6.5
71	.5	1.0	1.8	1.0	1.1	.7	.4	6.5
72	.5	1.0	1.8	1.0	1.1	.7	.4	6.5
73	.6	.9	1.0	1.6	1.7	.8	.4	6.9
74	.6	.9	1.0	1.6	1.7	.8	.4	6.9
75	.6	.9	1.0	1.6	1.7	.8	.4	6.9
76	.6	.9	1.0	1.6	1.7	.8	.4	6.9

Table 4-5: Calculated lead concentration in blood, amount originating from air exposure and amount from food intake as well as calculated air lead exposure, results from compartment model calculations (Method from Fact).

M.AIR - middle lead concentration in air to which each person is exposed
E.INH - inhaled lead from air to blood
E.FOOD - lead-blood concentration from food
TOTAL - total lead-blood concentration
N.PERS - number of persons
% INH - per cent lead to blood from inhalation

	METHOD FROM FACT			
	M.AIR	E.INH	E.FOOD	TOTAL
1XNFI	.40946	2.14035	4.39554	6.53589
2XNFJ	.37508	1.96066	4.39554	6.35621
3XNFK	.31615	1.65258	4.39554	6.04812
4XNOIL	.17412	.91020	4.30469	5.21488
5XNOJ	.14308	.74794	4.30469	5.05262
6XNOK	.08415	.43985	4.34776	4.78762
7XNEI	.64529	3.37312	4.34776	7.72088
8XNEJ	.61092	3.19343	4.34776	7.54119
9XNFKP	.12833	.67083	4.34776	5.01860
10XNOKP	.12550	.65602	4.34776	5.00379
11XNEJP	.65050	3.40034	4.34776	7.74810
12XNUI	.16550	.86511	4.09266	4.95778
13XNUJ	.11342	.59286	4.09266	4.68552
14XNUK	.02488	.13003	4.09266	4.22269
15XMFI	.42321	3.31834	4.43862	7.75696
16XMFJ	.38883	3.04881	4.43862	7.48743
17XMFK	.31958	2.50582	4.43862	6.94445
18XMOI	.19121	1.49925	4.30469	5.80393
19XMOJ	.15683	1.22972	4.30469	5.53440
20XMOK	.08758	.68673	4.30469	4.99142
21XMEI	.65904	5.16749	4.39554	9.56303
22XMEJ	.62467	4.89795	4.39554	9.29350
23XMFKP	.36083	2.82926	4.39554	7.22480
24XMOKP	.12883	1.01017	4.35247	5.36264
25XMEJP	.66383	5.20506	4.43862	9.64368
26XMUI	.18300	1.43489	4.11207	5.54696
27XMUJ	.13092	1.02651	4.11207	5.13858
28XMUK	.02925	.22935	4.11207	4.34142
29YNFI	.34512	1.98447	4.72290	6.70736
30YNFJ	.30971	1.78082	4.72290	6.50372
31YNFK	.24900	1.43175	4.72290	6.15465
32YNOI	.17633	1.01392	4.63697	5.65089
33YNOJ	.14092	.81027	4.63697	5.44724
34YNOK	.08021	.46120	4.63697	5.09817
35YNEIL	.50783	2.92004	4.91641	7.83645
36YNEJ	.47512	2.73197	4.69621	7.42817
37YNFKP	.27952	1.60724	4.69621	6.30345
38YNOKP	.11073	.63669	4.66366	5.30036
39YNEJP	.50388	2.89728	4.72875	7.62603
40YNUI	.16696	.96001	4.35738	5.31739
41YNUJ	.12321	.70845	4.38407	5.09252
42YNUK	.04800	.27600	4.38407	4.66007
43YMFI	.35929	3.09889	4.72875	7.82764
44YMFJ	.32388	2.79342	4.72875	7.52217

Table 4-5, cont.

	METHOD FROM FACT			
	M.AIR	E.INH	E.FOOD	TOTAL
45YMFK	.25254	2.17817	4.72875	6.90692
46YMOI	.19050	1.64306	4.63697	6.28004
47YMOJ	.15508	1.33759	4.63697	5.97457
48YMOK	.08375	.72234	4.63697	5.35932
49YMEIL	.52142	4.49722	4.91641	9.41363
50YMEJ	.48954	4.22230	4.69621	8.91850
51YMDKP	.28296	2.44052	4.69621	7.13672
52YMOKP	.11417	.98469	4.69621	5.68089
53YMEJP	.51787	4.46667	4.69621	9.16288
54YMUI	.18446	1.59095	4.65781	6.24876
55YMUJL	.14071	1.21361	4.65781	5.87142
56YMUK	.05237	.45173	4.65781	5.10954
57CNSI	.32754	3.76673	6.46173	10.22846
58CNSJ	.28379	3.26360	6.46173	9.72533
59CNSK	.20942	2.40829	6.46173	8.87002
60BNI	.15529	2.85737	5.29602	8.15339
61BNJ	.11883	2.18653	5.29602	7.48255
62RNI	.18113	.99981	2.97410	3.97392
63RNJ	.12800	.70656	2.97410	3.68067
64RNK	.03769	.20803	2.97410	3.18214
65RNKH	.01500	.08280	2.97410	3.05690
66RMI	.19737	1.12253	2.27208	3.39460
67RMJ	.14425	.82039	2.27208	3.09247
68RMK	.04175	.23744	2.27208	2.50952
69RMKH	.02000	.11375	2.27208	2.38582
70CMSI	.30557	5.97398	6.46173	12.43571
71CMSJ	.29712	5.80879	6.46173	12.27052
72CMSK	.21275	4.15926	6.46173	10.62099
73BMI	.16988	4.42827	6.92803	11.35629
74BMJ	.13263	3.45716	6.92803	10.38518
75BNK	.04177	.76858	6.92803	7.69661
76BMK	.05383	1.40326	6.92803	8.33128

APPENDIX 5

Assumptions used and results found when using
the model in Holmestrand in 1984.

Table 5-1: The amount of time spent in each microenvironment by each of the population subgroups, input to compartment model.

HOLMESTRAND 1984															
1XNFI	.3	.3	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.5	.0	.0	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
2XNFJ	.0	.3	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.5	.0	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
3XNFK	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
4XNOIL	.3	.3	.0	.0	.0	1.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
	15.5	.0	.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
5XNOJ	.0	.3	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.5	.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
6XNOK	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
7XNEI	.3	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.5	.0	.0	.0	.0	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
8XNEJ	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.5	.0	.0	.0	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
9XNFKP	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	1.0	.0	.0
10XNOKP	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	1.0	.0	.0
11XNEJP	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.0	.0	.0	.0	.0	.5	.0	.0	.0	5.5	.0	1.0	.0	.0
12XNUI	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	21.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
13XNUJ	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	21.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
14XNUK	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	21.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
15XMFI	.3	.3	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.5	.0	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
16XMFJ	.0	.3	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.5	.0	.5	.0	.0	5.5	.0	.0	.5	.0	.0
17XMFK	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	.5	.0	.0	5.5	.0	.0	.5	.0	.0
18XMOI	.3	.3	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.5	.0	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
19XMOJ	.0	.3	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.5	.0	.5	.0	5.5	.0	.0	.0	.5	.0	.0
20XMOK	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	.5	.0	5.5	.0	.0	.0	.5	.0	.0
21XMEI	.3	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.5	.0	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
22XMEJ	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.5	.0	.5	.0	.0	.0	5.5	.0	.5	.0	.0
23XMFKP	.0	.3	.0	.0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.0	.5	.0	.0	5.5	.0	.0	1.0	.0	.0
24XMOKP	.0	.3	.0	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.0	.5	.0	5.5	.0	.0	.0	1.0	.0	.0
25XMEJP	.0	.3	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.0	.0	.5	.0	.0	.0	5.5	.0	1.0	.0	.0
26XMUI	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	21.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
27XMUJ	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	21.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
28XMUK	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	21.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
29YNFI	.3	.4	.5	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	17.0	.0	.0	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
30YNFJ	.0	.4	.5	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.0	.0	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
31YNFK	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	17.0	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
32YNOI	.3	.4	.5	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	17.0	.0	.0	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
33YNOJ	.0	.4	.5	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.0	.0	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
34YNOK	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	17.0	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
35YNEIL	.3	.4	.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.3	.0	.0	.0	.0	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
36YNEJ	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.3	.0	.0	.0	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
37YNFKP	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.5	.5	.0
38YNOKP	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.5	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.5	.5	.0
39YNEJP	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.8	.0	.0	.0	.0	1.0	.0	.0	.0	4.0	.0	.5	.5	.0

Table 5-1, cont.

HOLMESTRAND 1984															
40YNUI	.5	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	21.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
41YNUJ	.0	1.0	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	21.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
42YNUK	.0	1.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	21.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
43YMFI	.3	.4	.5	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	17.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
44YMFJ	.0	.4	.5	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	17.0	.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
45YMFK	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	17.0	1.0	.0	.0	4.0	.0	.0	.2	.3	.0
46YMOI	.3	.4	.5	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	17.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
47YMOJ	.0	.4	.5	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	17.0	.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
48YMOK	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	17.0	1.0	.0	4.0	.0	.0	.0	.2	.3	.0
49YMEIL	.3	.4	.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.3	.0	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
50YMEJ	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	17.3	.0	1.0	.0	.0	.0	4.0	.0	.2	.3	.0
51YMDKP	.0	.4	.5	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	1.0	.0	.0	4.0	.0	.0	.5	.5	.0
52YMOKP	.0	.4	.5	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.5	1.0	.0	4.0	.0	.0	.0	.5	.5	.0
53YMEJP	.0	.4	.5	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.8	.0	1.0	.0	.0	.0	4.0	.0	.5	.5	.0
54YMUI	.5	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	21.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
55YMUJL	.0	1.0	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	21.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
56YMUK	.0	1.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	21.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
57CNSI	.0	2.5	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	16.0	.0	.0	.0	.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.5
58CNSJ	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	16.0	.0	.0	.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.5
59CNSK	.0	.0	.0	.0	1.5	.0	.0	2.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.0	.0	.0	.0	.5	.0	.0	3.0	.0	.0	.5	.0	.0
60BNI	4.0	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	17.5	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
61BNJ	.0	1.0	.5	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.5	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
62RNI	.0	3.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	19.5	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
63RNJ	.0	.0	.5	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	19.5	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
64RNK	.0	.0	.5	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	19.5	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
65RNKH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	24.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
66RMI	.0	3.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	19.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
67RMJ	.0	.0	.5	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	19.5	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
68RMK	.0	.0	.5	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	19.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0
69RMKH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	24.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
70CMSI	.0	2.5	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.0	.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.0
71CMSJ	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.0	.0	.5	.0	.0	3.0	.0	.0	.0	.0	.5
72CMSK	.0	.0	.0	.0	1.5	.0	.0	2.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.0	.5	.0	.0	3.0	.0	.0	.5	.0	.0
73BMI	4.0	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	19.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
74BMJ	.0	1.0	.5	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	19.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
75BNK	.0	1.0	.5	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	17.5	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
76BMK	.0	1.0	.5	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	17.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0

Table 5-2: Biological coefficients used in model prediction (see Appendix 1 for abbreviations) for each population subgroup, input to compartment model.

	MA	MB	MC	MD	ME	MF	BRJ	M10J	MN	FR	RF
1XNFI	190.	240.	50.	120.	480.	80.	25.	55.	2100.	50.	15.
2XNFJ	190.	240.	50.	120.	480.	80.	25.	55.	3000.	50.	15.
3XNFK	190.	240.	50.	120.	480.	80.	25.	55.	300.	50.	15.
4XNOIL	180.	230.	50.	120.	420.	80.	25.	55.	2900.	50.	15.
5XNOJ	180.	230.	50.	120.	420.	80.	25.	55.	2000.	50.	15.
6XNOK	190.	240.	50.	120.	420.	80.	25.	55.	900.	50.	15.
7XNEI	190.	240.	50.	120.	420.	80.	25.	55.	1100.	50.	15.
8XNEJ	190.	240.	50.	120.	420.	80.	25.	55.	1400.	50.	15.
9XNFKP	190.	240.	50.	120.	420.	80.	25.	55.	900.	50.	15.
10XNOKP	190.	240.	50.	120.	420.	80.	25.	55.	1200.	50.	15.
11XNEJP	190.	240.	50.	120.	420.	80.	25.	55.	1200.	50.	15.
12XNUI	180.	250.	50.	90.	480.	80.	25.	55.	600.	50.	15.
13XNUJ	180.	250.	50.	90.	480.	80.	25.	55.	600.	50.	15.
14XNUK	180.	250.	50.	90.	480.	80.	25.	55.	600.	50.	15.
15XMFI	200.	250.	50.	120.	480.	80.	25.	55.	1600.	75.	15.
16XMFJ	200.	250.	50.	120.	480.	80.	25.	55.	2300.	75.	15.
17XMFK	200.	250.	50.	120.	480.	80.	25.	55.	200.	75.	15.
18XMOI	180.	230.	50.	120.	420.	80.	25.	55.	2100.	75.	15.
19XMOJ	180.	230.	50.	120.	420.	80.	25.	55.	1500.	75.	15.
20XMOK	180.	230.	50.	120.	420.	80.	25.	55.	600.	75.	15.
21XMEI	190.	240.	50.	120.	480.	80.	25.	55.	900.	75.	15.
22XMEJ	190.	240.	50.	120.	480.	80.	25.	55.	1100.	75.	15.
23XMFKP	190.	240.	50.	120.	480.	80.	25.	55.	600.	75.	15.
24XMOKP	180.	230.	50.	120.	480.	80.	25.	55.	1000.	75.	15.
25XMEJP	200.	250.	50.	120.	480.	80.	25.	55.	1000.	75.	15.
26XMUI	180.	260.	50.	90.	480.	80.	25.	55.	400.	75.	15.
27XMUJ	180.	260.	50.	90.	480.	80.	25.	55.	400.	75.	15.
28XMUK	180.	260.	50.	90.	480.	80.	25.	55.	400.	75.	15.
29YNFI	130.	160.	50.	90.	360.	60.	20.	40.	1100.	50.	15.
30YNFJ	130.	160.	50.	90.	360.	60.	20.	40.	900.	50.	15.
31YNFK	130.	160.	50.	90.	360.	60.	20.	40.	300.	50.	15.
32YNOI	120.	140.	50.	90.	360.	60.	20.	40.	2400.	50.	15.
33YNOJ	120.	140.	50.	90.	360.	60.	20.	40.	1200.	50.	15.
34YNOK	120.	140.	50.	90.	360.	60.	20.	40.	900.	50.	15.
35YNEIL	130.	150.	50.	90.	360.	80.	20.	40.	600.	50.	15.
36YNEJ	130.	150.	50.	90.	360.	60.	20.	40.	900.	50.	15.
37YNFKP	130.	150.	50.	90.	360.	60.	20.	40.	600.	50.	15.
38YNOKP	120.	150.	50.	90.	360.	60.	20.	40.	1200.	50.	15.
39YNEJP	140.	150.	50.	90.	360.	60.	20.	40.	600.	50.	15.
40YNUI	110.	150.	50.	70.	360.	60.	20.	40.	5600.	50.	15.
41YNUJ	110.	160.	50.	70.	360.	60.	20.	40.	2500.	50.	15.
42YNUK	110.	160.	50.	70.	360.	60.	20.	40.	1600.	50.	15.
43YMFI	140.	150.	50.	90.	360.	60.	20.	40.	900.	75.	15.
44YMFJ	140.	150.	50.	90.	360.	60.	20.	40.	600.	75.	15.
45YMFK	140.	150.	50.	90.	360.	60.	20.	40.	200.	75.	15.
46YMOI	120.	140.	50.	90.	360.	60.	20.	40.	1600.	75.	15.
47YMOJ	120.	140.	50.	90.	360.	60.	20.	40.	800.	75.	15.
48YMOK	120.	140.	50.	90.	360.	60.	20.	40.	600.	75.	15.
49YMEIL	130.	150.	50.	90.	360.	80.	20.	40.	400.	75.	15.
50YMEJ	130.	150.	50.	90.	360.	60.	20.	40.	600.	75.	15.
51YMDKP	130.	150.	50.	90.	360.	60.	20.	40.	400.	75.	15.
52YMOKP	130.	150.	50.	90.	360.	60.	20.	40.	800.	75.	15.
53YMEJP	130.	150.	50.	90.	360.	60.	20.	40.	400.	75.	15.
54YMUI	110.	160.	50.	90.	360.	60.	20.	40.	3400.	75.	15.
55YMUJL	110.	160.	50.	90.	360.	60.	20.	40.	1500.	75.	15.
56YMUK	110.	160.	50.	90.	360.	60.	20.	40.	900.	75.	15.
57CNSI	100.	230.	30.	80.	550.	40.	25.	25.	6000.	50.	15.
58CNSJ	100.	230.	30.	80.	550.	40.	25.	25.	5000.	50.	15.
59CNSK	100.	230.	30.	80.	550.	40.	25.	25.	2000.	50.	15.
60BNI	50.	100.	20.	20.	400.	20.	20.	15.	3000.	60.	15.
61BNJ	50.	100.	20.	20.	400.	20.	20.	15.	1500.	60.	15.
62RNI	70.	150.	30.	50.	100.	40.	16.	40.	2000.	60.	15.
63RNJ	70.	150.	30.	50.	100.	40.	16.	40.	2000.	60.	15.
64RNK	70.	150.	30.	50.	100.	40.	16.	40.	1500.	60.	15.
65RNKH	70.	150.	30.	50.	100.	40.	16.	40.	4000.	60.	15.
66RMI	70.	150.	30.	50.	100.	40.	16.	55.	1000.	85.	15.
67RMJ	70.	150.	30.	50.	100.	40.	16.	55.	1500.	85.	15.
68RMK	70.	150.	30.	50.	100.	40.	16.	55.	500.	85.	15.
69RMKH	70.	150.	30.	50.	100.	40.	16.	55.	4000.	85.	15.
70CMSI	100.	230.	30.	80.	550.	40.	25.	25.	3000.	85.	15.
71CMSJ	100.	230.	30.	80.	550.	40.	25.	25.	2500.	85.	15.
72CMSK	100.	230.	30.	80.	550.	40.	25.	25.	1000.	85.	15.
73BMI	50.	100.	20.	20.	400.	20.	20.	15.	1000.	85.	20.
74BMJ	50.	100.	20.	20.	400.	20.	20.	15.	500.	85.	20.
75BNK	50.	100.	20.	20.	400.	20.	20.	15.	500.	60.	20.
76BMK	50.	100.	20.	20.	400.	20.	20.	15.	500.	85.	20.

Table 5-3: Lead intake from food (µg/day) for each population subgroup, input to compartment model.

	INTAKE FROM FOOD (µg/day)						
	POTATO	CEREAL	FRUIT	MEAT	MILK	VTABLE	BACKGR
1	4.8	5.0	10.3	12.7	4.1	7.7	15.0
2	4.8	5.0	10.3	12.7	4.1	7.7	15.0
3	4.8	5.0	10.3	12.7	4.1	7.7	15.0
4	4.5	4.7	10.3	12.7	3.6	7.7	15.0
5	4.5	4.7	10.3	12.7	3.6	7.7	15.0
6	4.8	5.0	10.3	12.7	3.6	7.7	15.0
7	4.8	5.0	10.3	12.7	3.6	7.7	15.0
8	4.8	5.0	10.3	12.7	3.6	7.7	15.0
9	4.8	5.0	10.3	12.7	3.6	7.7	15.0
10	4.8	5.0	10.3	12.7	3.6	7.7	15.0
11	4.8	5.0	10.3	12.7	3.6	7.7	15.0
12	4.5	5.2	10.3	9.5	4.1	7.7	15.0
13	4.5	5.2	10.3	9.5	4.1	7.7	15.0
14	4.5	5.2	10.3	9.5	4.1	7.7	15.0
15	5.0	5.2	10.3	12.7	4.1	7.7	15.0
16	5.0	5.2	10.3	12.7	4.1	7.7	15.0
17	5.0	5.2	10.3	12.7	4.1	7.7	15.0
18	4.5	4.7	10.3	12.7	3.6	7.7	15.0
19	4.5	4.7	10.3	12.7	3.6	7.7	15.0
20	4.5	4.7	10.3	12.7	3.6	7.7	15.0
21	4.8	5.0	10.3	12.7	4.1	7.7	15.0
22	4.8	5.0	10.3	12.7	4.1	7.7	15.0
23	4.8	5.0	10.3	12.7	4.1	7.7	15.0
24	4.5	4.7	10.3	12.7	4.1	7.7	15.0
25	5.0	5.2	10.3	12.7	4.1	7.7	15.0
26	4.5	5.4	10.3	9.5	4.1	7.7	15.0
27	4.5	5.4	10.3	9.5	4.1	7.7	15.0
28	4.5	5.4	10.3	9.5	4.1	7.7	15.0
29	3.3	3.3	10.3	9.5	3.0	5.7	15.0
30	3.3	3.3	10.3	9.5	3.0	5.7	15.0
31	3.3	3.3	10.3	9.5	3.0	5.7	15.0
32	3.0	2.9	10.3	9.5	3.0	5.7	15.0
33	3.0	2.9	10.3	9.5	3.0	5.7	15.0
34	3.0	2.9	10.3	9.5	3.0	5.7	15.0
35	3.3	3.1	10.3	9.5	3.0	7.7	15.0
36	3.3	3.1	10.3	9.5	3.0	5.7	15.0
37	3.3	3.1	10.3	9.5	3.0	5.7	15.0
38	3.0	3.1	10.3	9.5	3.0	5.7	15.0
39	3.5	3.1	10.3	9.5	3.0	5.7	15.0
40	2.8	3.1	10.3	7.4	3.0	5.7	15.0
41	2.8	3.3	10.3	7.4	3.0	5.7	15.0
42	2.8	3.3	10.3	7.4	3.0	5.7	15.0
43	3.5	3.1	10.3	9.5	3.0	5.7	15.0
44	3.5	3.1	10.3	9.5	3.0	5.7	15.0
45	3.5	3.1	10.3	9.5	3.0	5.7	15.0
46	3.0	2.9	10.3	9.5	3.0	5.7	15.0
47	3.0	2.9	10.3	9.5	3.0	5.7	15.0
48	3.0	2.9	10.3	9.5	3.0	5.7	15.0
49	3.3	3.1	10.3	9.5	3.0	7.7	15.0
50	3.3	3.1	10.3	9.5	3.0	5.7	15.0
51	3.3	3.1	10.3	9.5	3.0	5.7	15.0
52	3.3	3.1	10.3	9.5	3.0	5.7	15.0
53	3.3	3.1	10.3	9.5	3.0	5.7	15.0
54	2.8	3.3	10.3	9.5	3.0	5.7	15.0
55	2.8	3.3	10.3	9.5	3.0	5.7	15.0
56	2.8	3.3	10.3	9.5	3.0	5.7	15.0
57	2.5	4.7	6.2	8.5	4.7	3.8	15.0
58	2.5	4.7	6.2	8.5	4.7	3.8	15.0
59	2.5	4.7	6.2	8.5	4.7	3.8	15.0
60	1.3	2.1	4.1	2.1	3.4	1.9	15.0
61	1.3	2.1	4.1	2.1	3.4	1.9	15.0
62	1.8	3.1	6.2	5.3	.8	3.8	15.0
63	1.8	3.1	6.2	5.3	.8	3.8	15.0
64	1.8	3.1	6.2	5.3	.8	3.8	15.0
65	1.8	3.1	6.2	5.3	.8	3.8	15.0
66	1.8	3.1	6.2	5.3	.8	3.8	15.0
67	1.8	3.1	6.2	5.3	.8	3.8	15.0
68	1.8	3.1	6.2	5.3	.8	3.8	15.0
69	1.8	3.1	6.2	5.3	.8	3.8	15.0
70	2.5	4.7	6.2	8.5	4.7	3.8	15.0
71	2.5	4.7	6.2	8.5	4.7	3.8	15.0
72	2.5	4.7	6.2	8.5	4.7	3.8	15.0
73	1.3	2.1	4.1	2.1	3.4	1.9	15.0
74	1.3	2.1	4.1	2.1	3.4	1.9	15.0
75	1.3	2.1	4.1	2.1	3.4	1.9	15.0
76	1.3	2.1	4.1	2.1	3.4	1.9	15.0

Table 5-4: Calculated lead exposure to blood (percent absorbed) for each populations subgroup (Transfact Method).

EXPOSURE TO BLOOD (TRANSFACT METHOD)								
	POTATO	CEREAL	MEAT	MILK	FRUIT	VTABLE	BACKGR	SUM
1	.3	.3	.8	.3	.6	.5	.4	3.2
2	.3	.3	.8	.3	.6	.5	.4	3.2
3	.3	.3	.8	.3	.6	.5	.4	3.2
4	.3	.3	.8	.2	.6	.5	.4	3.1
5	.3	.3	.8	.2	.6	.5	.4	3.1
6	.3	.3	.8	.2	.6	.5	.4	3.2
7	.3	.3	.8	.2	.6	.5	.4	3.2
8	.3	.3	.8	.2	.6	.5	.4	3.2
9	.3	.3	.8	.2	.6	.5	.4	3.2
10	.3	.3	.8	.2	.6	.5	.4	3.2
11	.3	.3	.8	.2	.6	.5	.4	3.2
12	.3	.3	.6	.3	.6	.5	.4	3.0
13	.3	.3	.6	.3	.6	.5	.4	3.0
14	.3	.3	.6	.3	.6	.5	.4	3.0
15	.3	.3	.8	.3	.6	.5	.4	3.2
16	.3	.3	.8	.3	.6	.5	.4	3.2
17	.3	.3	.8	.3	.6	.5	.4	3.2
18	.3	.3	.8	.2	.6	.5	.4	3.1
19	.3	.3	.8	.2	.6	.5	.4	3.1
20	.3	.3	.8	.2	.6	.5	.4	3.1
21	.3	.3	.8	.3	.6	.5	.4	3.2
22	.3	.3	.8	.3	.6	.5	.4	3.2
23	.3	.3	.8	.3	.6	.5	.4	3.2
24	.3	.3	.8	.3	.6	.5	.4	3.2
25	.3	.3	.8	.3	.6	.5	.4	3.2
26	.3	.3	.6	.3	.6	.5	.4	3.0
27	.3	.3	.6	.3	.6	.5	.4	3.0
28	.3	.3	.6	.3	.6	.5	.4	3.0
29	.3	.3	.8	.3	.9	.5	.4	3.4
30	.3	.3	.8	.3	.9	.5	.4	3.4
31	.3	.3	.8	.3	.9	.5	.4	3.4
32	.3	.2	.8	.3	.9	.5	.4	3.4
33	.3	.2	.8	.3	.9	.5	.4	3.4
34	.3	.2	.8	.3	.9	.5	.4	3.4
35	.3	.3	.8	.3	.9	.7	.4	3.6
36	.3	.3	.8	.3	.9	.5	.4	3.4
37	.3	.3	.8	.3	.9	.5	.4	3.4
38	.3	.3	.8	.3	.9	.5	.4	3.4
39	.3	.3	.8	.3	.9	.5	.4	3.4
40	.2	.3	.6	.3	.9	.5	.4	3.2
41	.2	.3	.6	.3	.9	.5	.4	3.2
42	.2	.3	.6	.3	.9	.5	.4	3.2
43	.3	.3	.8	.3	.9	.5	.4	3.4
44	.3	.3	.8	.3	.9	.5	.4	3.4
45	.3	.3	.8	.3	.9	.5	.4	3.4
46	.3	.2	.8	.3	.9	.5	.4	3.4
47	.3	.2	.8	.3	.9	.5	.4	3.4
48	.3	.2	.8	.3	.9	.5	.4	3.4
49	.3	.3	.8	.3	.9	.7	.4	3.6
50	.3	.3	.8	.3	.9	.5	.4	3.4
51	.3	.3	.8	.3	.9	.5	.4	3.4
52	.3	.3	.8	.3	.9	.5	.4	3.4
53	.3	.3	.8	.3	.9	.5	.4	3.4
54	.2	.3	.8	.3	.9	.5	.4	3.4
55	.2	.3	.8	.3	.9	.5	.4	3.4
56	.2	.3	.8	.3	.9	.5	.4	3.4
57	.3	.7	1.2	.6	.9	.5	.4	4.6
58	.3	.7	1.2	.6	.9	.5	.4	4.6
59	.3	.7	1.2	.6	.9	.5	.4	4.6
60	.3	.5	.5	.8	.9	.4	.4	3.8
61	.3	.5	.5	.8	.9	.4	.4	3.8
62	.2	.3	.5	.1	.5	.3	.4	2.2
63	.2	.3	.5	.1	.5	.3	.4	2.2
64	.2	.3	.5	.1	.5	.3	.4	2.2
65	.2	.3	.5	.1	.5	.3	.4	2.2
66	.1	.2	.3	.1	.4	.2	.4	1.7
67	.1	.2	.3	.1	.4	.2	.4	1.7
68	.1	.2	.3	.1	.4	.2	.4	1.7
69	.1	.2	.3	.1	.4	.2	.4	1.7
70	.3	.7	1.2	.6	.9	.5	.4	4.6
71	.3	.7	1.2	.6	.9	.5	.4	4.6
72	.3	.7	1.2	.6	.9	.5	.4	4.6
73	.4	.6	.6	1.0	1.3	.6	.4	5.0
74	.4	.6	.6	1.0	1.3	.6	.4	5.0
75	.4	.6	.6	1.0	1.3	.6	.4	5.0
76	.4	.6	.6	1.0	1.3	.6	.4	5.0

Table 5-5: Calculated lead concentration in blood, amount originating from air exposure and amount from food intake as well as calculated air lead exposure, results from compartment model calculations (Method from Fact).

M.AIR - middle lead concentration in air to which each person is exposed
E.INH - inhaled lead from air to blood
E.FOOD - lead-blood concentration from food
TOTAL - total lead-blood concentration
N.PERS - number of persons
% INH - per cent lead to blood from inhalation

	METHOD FROM FACT			
	M.AIR	E.INH	E.FOOD	TOTAL
1XNFI	.35500	1.85568	3.18897	5.04465
2XNFJ	.30662	1.60281	3.18897	4.79178
3XNFK	.29250	1.52898	3.18897	4.71795
4XNOIL	.12956	.67726	3.12840	3.80566
5XNOJ	.08327	.43528	3.12840	3.56368
6XNOK	.06915	.36144	3.15712	3.51856
7XNEI	.58967	3.08235	3.15712	6.23946
8XNEJ	.54129	2.82948	3.15712	5.98660
9XNFKP	.09477	.49539	3.15712	3.65251
10XNOKP	.09394	.49104	3.15712	3.64815
11XNEJP	.56567	2.95689	3.15712	6.11401
12XNUI	.11342	.59286	2.98705	3.57991
13XNUJ	.04133	.21606	2.98705	3.20311
14XNUK	.01967	.10280	2.98705	3.08985
15XMFI	.36875	2.89134	3.21769	6.10902
16XMFJ	.32037	2.51203	3.21769	5.72972
17XMFK	.29387	2.30425	3.21769	5.52193
18XMOI	.14540	1.14004	3.12840	4.26843
19XMOJ	.09702	.76073	3.12840	3.88913
20XMOK	.07052	.55295	3.12840	3.68134
21XMEI	.60342	4.73134	3.18897	7.92031
22XMEJ	.55504	4.35203	3.18897	7.54100
23XMFKP	.31862	2.49831	3.18897	5.68728
24XMOKP	.09527	.74701	3.16025	3.90726
25XMEJP	.57900	4.53989	3.21769	7.75757
26XMUI	.13092	1.02651	2.99999	4.02650
27XMUJ	.05883	.46131	2.99999	3.46130
28XMUK	.02142	.16793	2.99999	3.16792
29YNFI	.29308	1.68523	3.43583	5.12106
30YNFJ	.24325	1.39869	3.43583	4.83452
31YNFK	.22871	1.31507	3.43583	4.75090
32YNOI	.13062	.75109	3.37855	4.12964
33YNOJ	.08079	.46455	3.37855	3.84310
34YNOK	.06625	.38094	3.37855	3.75949
35YNEIL	.45804	2.63374	3.58319	6.21693
36YNEJ	.40942	2.35415	3.41804	5.77218
37YNFKP	.24767	1.42408	3.41804	4.84212
38YNOKP	.08521	.48995	3.39634	3.88629
39YNEJP	.42796	2.46076	3.43973	5.90049
40YNUI	.11488	.66053	3.19216	3.85269
41YNUJ	.05321	.30595	3.20995	3.51590
42YNUK	.03508	.20173	3.20995	3.41168
43YMFI	.30725	2.65003	3.43973	6.08976
44YMFJ	.25742	2.22022	3.43973	5.65995

Table 5-5, cont.

METHOD FROM FACT				
	M.AIR	E.INH	E.FOOD	TOTAL
45YMFK	.23012	1.98483	3.43973	5.42456
46YMOI	.14479	1.24883	3.37855	4.62738
47YMOJ	.09496	.81902	3.37855	4.19757
48YMOK	.06767	.58362	3.37855	3.96217
49YMEIL	.47162	4.06777	3.58319	7.65096
50YMEJ	.42383	3.65556	3.41804	7.07360
51YMDKP	.24904	2.14798	3.41804	5.56602
52YMOKP	.08658	.74678	3.41804	4.16482
53YMEJP	.44196	3.81189	3.41804	7.22993
54YMUI	.13238	1.14173	3.39244	4.53417
55YMUJL	.07071	.60986	3.39244	4.00230
56YMUK	.03683	.31769	3.39244	3.71013
57CNSI	.25900	2.97850	4.59477	7.57327
58CNSJ	.19879	2.28610	4.59477	6.88087
59CNSK	.18025	2.07288	4.59477	6.66764
60BNI	.11050	2.03320	3.81839	5.85159
61BNJ	.05612	1.03270	3.81839	4.85109
62RNI	.12383	.68356	2.21208	2.89564
63RNJ	.05071	.27991	2.21208	2.49199
64RNK	.02821	.15571	2.21208	2.36779
65RNKH	.01000	.05520	2.21208	2.26728
66RMI	.14008	.79669	1.71788	2.51457
67RMJ	.06696	.38081	1.71788	2.09869
68RMK	.02983	.16967	1.71788	1.88755
69RMKH	.01200	.06825	1.71788	1.78612
70CMSI	.25260	4.93825	4.59477	9.53302
71CMSJ	.21212	4.14704	4.59477	8.74181
72CMSK	.18158	3.54995	4.59477	8.14472
73BMI	.12478	3.25271	4.95785	8.21056
74BMJ	.06949	1.81138	4.95785	6.76923
75BNK	.02779	.51137	4.95785	5.46922
76BMK	.03800	.99053	4.95785	5.94838

APPENDIX 6

Assumptions used and results found when using
the model in Oslo-Nydalen in 1984.

Table 6-1: The amount of time spent in each microenvironment by each of the population subgroups, input to compartment model.

OSLO-NYDALEN 1983															
1XNFI	.2	.5	.1	.1	.2	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0
	15.8	.0	.0	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.4	.4	.0
2XNFJ	.0	.2	.0	.2	.4	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0
	.0	15.9	.0	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.4	.4	.0
3XNFK	.2	.0	.2	.4	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.4	.0	.0	.0	.5	.0	.0	5.5	.0	.0	.4	.4	.0
4XNOIL	.2	.8	.1	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0
	15.7	.0	.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.4	.4	.0
5XNOJ	.0	.2	.0	.2	.4	.3	.2	.2	.0	.0	.0	.0	.0	.0	.0
	.0	15.7	.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.4	.4	.0
6XNOK	.0	.2	.0	.0	.0	.0	.5	.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.0	.0	.0	.0	.5	.0	5.5	.0	.0	.0	.4	.4	.0
7XNEI	.4	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0
	15.4	.0	.0	.0	.0	.0	.5	.1	.0	.0	5.5	.0	.4	.4	.0
8XNEJ	.3	.2	.2	.1	.4	.3	.0	.0	.0	.0	.0	.1	.1	.1	.0
	.0	15.3	.0	.0	.0	.0	.5	.1	.0	.0	5.5	.0	.4	.4	.0
9XNFKP	.0	.2	.0	.1	.2	.2	.3	.3	.1	.0	.0	.0	.0	.0	.0
	.0	.0	15.6	.0	.0	.0	.5	.0	.0	5.5	.0	.0	1.0	.0	.0
10XNOKP	.0	.2	.0	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.2	.0	.0	.0	.5	.0	5.5	.0	.0	.0	1.0	.0	.0
11XNEJP	.1	.2	.2	.1	.1	.1	.0	.0	.0	.0	.0	.1	.1	.1	.0
	.0	16.0	.0	.0	.0	.0	.5	.1	.0	.0	5.5	.0	1.0	.0	.0
12XNUI	.2	2.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	18.8	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.4	.4	.0
13XNUJ	.0	1.0	.0	.2	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	19.3	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.4	.4	.0
14XNUK	.0	1.0	.0	.0	.0	.0	.5	.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	19.2	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.4	.4	.0
15XMFI	.2	.5	.1	.1	.2	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0
	.0	.0	.0	15.8	.0	.0	.5	.0	.0	5.5	.0	.0	.4	.4	.0
16XMFJ	.0	.2	.0	.2	.4	.3	.0	.0	.2	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	15.9	.0	.5	.0	.0	5.5	.0	.0	.4	.4	.0
17XMFK	.1	.2	.0	.1	.2	.2	.3	.0	.1	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.4	.5	.0	.0	5.5	.0	.0	.4	.4	.0
18XMOI	.2	.5	.1	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.0	.0	.0	.5	.0	5.5	.0	.0	.0	.4	.4	.0
19XMOJ	.0	.2	.0	.2	.4	.3	.2	.2	.1	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	15.7	.0	.5	.0	5.5	.0	.0	.0	.4	.4	.0
20XMOK	.0	.2	.0	.0	.0	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.0	.5	.0	5.5	.0	.0	.0	.4	.4	.0
21XMEI	.4	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0
	.0	.0	.0	15.4	.0	.0	.5	.1	.0	.0	5.5	.0	.4	.4	.0
22XMEJ	.3	.2	.2	.1	.4	.3	.0	.0	.1	.0	.0	.1	.1	.1	.0
	.0	.0	.0	.0	15.3	.0	.5	.1	.0	.0	5.5	.0	.4	.4	.0
23XMFKP	.0	.2	.0	.1	.2	.2	.3	.3	.1	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	15.6	.5	.0	.0	5.5	.0	.0	1.0	.0	.0
24XMOKP	.0	.2	.0	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.2	.5	.0	5.5	.0	.0	.0	1.0	.0	.0
25XMEJP	.3	.2	.2	.2	.4	.3	.0	.0	.1	.0	.0	.1	.0	.0	.0
	.0	.0	.0	.0	16.0	.0	.5	.1	.0	.0	5.5	.0	1.0	.0	.0
26XMUI	.2	2.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	18.8	.0	.0	2.0	.0	.0	.0	.0	.0	.2	.8	.0
27XMUJ	.0	.1	.0	.2	.4	.3	.0	.0	.5	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	19.3	.2	2.0	.0	.0	.0	.0	.0	.2	.8	.0
28XMUK	.1	.0	.0	.0	.0	.0	.5	.5	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	19.2	2.0	.0	.0	.0	.0	.0	.2	.8	.0
29YNFI	.2	.5	.1	.1	.3	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0
	16.6	.0	.0	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.4	.4	.0
30YNFJ	.0	.2	.1	.2	.5	.4	.0	.0	.1	.0	.0	.0	.0	.0	.0
	.0	16.7	.0	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.4	.4	.0
31YNFK	.0	.2	.1	.1	.3	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0
	.0	.0	17.1	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	.4	.4	.0
32YNOI	.2	.5	.1	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	16.8	.0	.0	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.4	.4	.0
33YNOJ	.0	.2	.0	.2	.5	.4	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	16.3	.0	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.4	.4	.0
34YNOK	.0	.2	.0	.0	.0	.0	.6	.6	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.8	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	.4	.4	.0
35YNEIL	.5	.9	.4	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0
	16.0	.0	.0	.0	.0	.0	1.0	.1	.0	.0	4.0	.0	.4	.4	.0
36YNEJ	.3	.2	.2	.2	.5	.4	.0	.0	.0	.0	.0	.1	.4	.1	.0
	.0	15.6	.0	.0	.0	.0	1.0	.1	.0	.0	4.0	.0	.4	.4	.0
37YNFKP	.0	.2	.0	.1	.2	.2	.3	.3	.3	.1	.0	.0	.0	.0	.0
	.0	.0	16.3	.0	.0	.0	1.0	.0	.0	4.0	.0	.0	1.0	.0	.0
38YNOKP	.0	.2	.0	.0	.0	.0	.6	.6	.0	.0	.0	.0	.0	.0	.0
	.0	.0	16.6	.0	.0	.0	1.0	.0	4.0	.0	.0	.0	1.0	.0	.0
39YNEJP	.4	.3	.2	.2	.4	.3	.0	.0	.0	.0	.0	.1	.0	.0	.0
	.0	16.0	.0	.0	.0	.0	1.0	.1	.0	.0	4.0	.0	1.0	.0	.0

Table 6-1, cont.

OSLO-NYDALEN 1983

40YNUI	.3	2.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	17.3	.0	.0	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.4	.4	.0
41YNUJ	.0	1.5	.0	.2	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	17.6	.0	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.4	.4	.0
42YNUK	.0	1.5	.0	.0	.0	.0	.6	.6	.0	.0	.0	.0	.0	.0	.0
	.0	.0	17.5	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.4	.4	.0
43YMFI	.2	.5	.1	.1	.3	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.6	.0	.0	1.0	.0	.0	4.0	.0	.0	.4	.4	.0
44YMFJ	.0	.2	.1	.2	.5	.4	.0	.0	.1	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.7	.0	1.0	.0	.0	4.0	.0	.0	.4	.4	.0
45YMFK	.0	.2	.1	.1	.3	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	17.1	1.0	.0	.0	4.0	.0	.0	.4	.4	.0
46YMOI	.2	.5	.1	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	16.8	.0	.0	1.0	.0	4.0	.0	.0	.0	.4	.4	.0
47YMOJ	.0	.2	.0	.2	.5	.4	.3	.3	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	16.3	.0	1.0	.0	.4	.0	.0	.0	.4	.4	.0
48YMOK	.0	.2	.0	.0	.0	.0	.6	.6	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.8	1.0	.0	4.0	.0	.0	.0	.4	.4	.0
49YMEIL	.5	.9	.4	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0
	.0	.0	.0	16.0	.0	.0	1.0	.1	.0	.0	4.0	.0	.4	.4	.0
50YMEJ	.3	.2	.2	.2	.5	.4	.0	.0	.0	.0	.0	.1	.1	.1	.0
	.0	.0	.0	.0	15.6	.0	1.0	.1	.0	.0	4.0	.0	.4	.4	.0
51YMDKP	.0	.2	.0	.0	.2	.2	.3	.3	.3	.1	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.3	1.0	.0	.0	4.0	.0	.0	1.0	.0	.0
52YMOKP	.0	.2	.0	.0	.0	.0	.6	.6	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	16.6	1.0	.0	4.0	.0	.0	.0	1.0	.0	.0
53YMEJP	.4	.3	.2	.2	.4	.3	.0	.0	.0	.0	.0	.1	.0	.0	.0
	.0	.0	.0	.0	16.0	.0	1.0	.1	.0	.0	4.0	.0	1.0	.0	.0
54YMUI	.3	2.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	17.3	.0	.0	3.0	.0	.0	.0	.0	.0	.4	.4	.0
55YMUJL	.0	1.5	.0	.2	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	17.4	.0	3.0	.0	.0	.0	.0	.0	.4	.4	.0
56YMUK	.0	1.5	.0	.0	.0	.0	.6	.6	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	17.5	3.0	.0	.0	.0	.0	.0	.4	.4	.0
57CNSI	1.0	2.2	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	15.7	.0	.0	.0	.0	.0	.5	.0	.0	.0	3.0	.0	.3	.3	.0
58CNSJ	.0	.2	.0	1.0	1.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	15.7	.0	.0	.0	.0	.5	.0	.0	3.0	.0	.0	.3	.3	.0
59CNSK	.0	.2	.0	.0	.0	.0	2.0	2.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	15.7	.0	.0	.0	.5	.0	3.0	.0	.0	.0	.3	.3	.0
60BNI	.0	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	20.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.4	.4	.0
61BNJ	.0	.2	.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	20.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.4	.4	.0
62RNI	1.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	20.5	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.2	.2	.0
63RNJ	.0	.1	.0	.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	20.5	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.2	.2	.0
64RNK	.0	.1	.0	.0	.0	.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	20.5	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.2	.2	.0
65RNKH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	20.5	.0	.0	1.0	.0	.0	.0	.0	.0	.2	.2	.0
66RMI	1.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	20.5	.0	.0	1.0	.0	.0	.0	.0	.0	.2	.2	.0
67RMJ	.0	.1	.0	.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	20.5	.0	1.0	.0	.0	.0	.0	.0	.2	.2	.0
68RMK	.0	.1	.0	.0	.0	.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	20.5	1.0	.0	.0	.0	.0	.0	.2	.2	.0
69RMKH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	24.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
70CMSI	1.0	2.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	15.7	.0	.0	.5	.0	.0	.0	3.0	.0	.3	.3	.0
71CMSJ	.0	.2	.0	1.0	1.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	15.7	.0	.5	.0	.0	3.0	.0	.0	.3	.3	.0
72CMSK	.0	.2	.0	.0	.0	.0	2.0	2.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	15.7	.5	.0	3.0	.0	.0	.0	.3	.3	.0
73BMI	.0	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	20.0	.0	.0	1.0	.0	.0	.0	.0	.0	.4	.4	.0
74BMJ	.0	2.2	.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	20.0	.0	1.0	.0	.0	.0	.0	.0	.4	.4	.0
75BNK	.0	.2	.0	.0	.0	.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	20.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.4	.4	.0
76BMK	.0	.2	.0	.0	.0	.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0
	.0	.0	.0	.0	.0	20.0	1.0	.0	.0	.0	.0	.0	.4	.4	.0

Table 6-2: Biological coefficients used in model prediction (see Appendix 1 for abbreviations) for each population subgroup, input to compartment model.

	MA	MB	MC	MD	ME	MF	BRJ	M10J	MN	FR	RF
1XNFI	190.	240.	50.	120.	480.	80.	25.	55.	2100.	35.	15.
2XNFJ	190.	240.	50.	120.	480.	80.	25.	55.	3000.	35.	15.
3XNFK	190.	240.	50.	120.	480.	80.	25.	55.	300.	35.	15.
4XNOIL	180.	230.	50.	120.	420.	80.	25.	55.	2900.	35.	15.
5XNOJ	180.	230.	50.	120.	420.	80.	25.	55.	2000.	35.	15.
6XNOK	190.	240.	50.	120.	420.	80.	25.	55.	900.	35.	15.
7XNEI	190.	240.	50.	120.	420.	80.	25.	55.	1100.	35.	15.
8XNEJ	190.	240.	50.	120.	420.	80.	25.	55.	1400.	35.	15.
9XNFKP	190.	240.	50.	120.	420.	80.	25.	55.	900.	35.	15.
10XNOKP	190.	240.	50.	120.	420.	80.	25.	55.	1200.	35.	15.
11XNEJP	190.	240.	50.	120.	420.	80.	25.	55.	1200.	35.	15.
12XNUI	180.	250.	50.	90.	480.	80.	25.	55.	600.	35.	15.
13XNUJ	180.	250.	50.	90.	480.	80.	25.	55.	600.	35.	15.
14XNUK	180.	250.	50.	90.	480.	80.	25.	55.	600.	35.	15.
15XMFI	200.	250.	50.	120.	480.	80.	25.	55.	1600.	55.	15.
16XMFJ	200.	250.	50.	120.	480.	80.	25.	55.	2300.	55.	15.
17XMFK	200.	250.	50.	120.	480.	80.	25.	55.	200.	55.	15.
18XMOI	180.	230.	50.	120.	420.	80.	25.	55.	2100.	55.	15.
19XMOJ	180.	230.	50.	120.	420.	80.	25.	55.	1500.	55.	15.
20XMOK	180.	230.	50.	120.	420.	80.	25.	55.	600.	55.	15.
21XMEI	190.	240.	50.	120.	480.	80.	25.	55.	900.	55.	15.
22XMEJ	190.	240.	50.	120.	480.	80.	25.	55.	1100.	55.	15.
23XMFKP	190.	240.	50.	120.	480.	80.	25.	55.	600.	55.	15.
24XMOKP	180.	230.	50.	120.	480.	80.	25.	55.	1000.	55.	15.
25XMEJP	200.	250.	50.	120.	480.	80.	25.	55.	1000.	55.	15.
26XMUI	180.	260.	50.	90.	480.	80.	25.	55.	400.	55.	15.
27XMUJ	180.	260.	50.	90.	480.	80.	25.	55.	400.	55.	15.
28XMUK	180.	260.	50.	90.	480.	80.	25.	55.	400.	55.	15.
29YNFI	130.	160.	50.	90.	360.	60.	20.	40.	1100.	35.	15.
30YNFJ	130.	160.	50.	90.	360.	60.	20.	40.	900.	35.	15.
31YNFK	130.	160.	50.	90.	360.	60.	20.	40.	300.	35.	15.
32YNOI	120.	140.	50.	90.	360.	60.	20.	40.	2400.	35.	15.
33YNOJ	120.	140.	50.	90.	360.	60.	20.	40.	1200.	35.	15.
34YNOK	120.	140.	50.	90.	360.	60.	20.	40.	900.	35.	15.
35YNEIL	130.	150.	50.	90.	360.	80.	20.	40.	600.	35.	15.
36YNEJ	130.	150.	50.	90.	360.	60.	20.	40.	900.	35.	15.
37YNFKP	130.	150.	50.	90.	360.	60.	20.	40.	600.	35.	15.
38YNOKP	120.	150.	50.	90.	360.	60.	20.	40.	1200.	35.	15.
39YNEJP	140.	150.	50.	90.	360.	60.	20.	40.	600.	35.	15.
40YNUI	110.	150.	50.	70.	360.	60.	20.	40.	5600.	35.	15.
41YNUJ	110.	160.	50.	70.	360.	60.	20.	40.	2500.	35.	15.
42YNUK	110.	160.	50.	70.	360.	60.	20.	40.	1600.	35.	15.
43YMFI	140.	150.	50.	90.	360.	60.	20.	40.	900.	55.	15.
44YMFJ	140.	150.	50.	90.	360.	60.	20.	40.	600.	55.	15.
45YMFK	140.	150.	50.	90.	360.	60.	20.	40.	200.	55.	15.
46YMOI	120.	140.	50.	90.	360.	60.	20.	40.	1600.	55.	15.
47YMOJ	120.	140.	50.	90.	360.	60.	20.	40.	800.	55.	15.
48YMOK	120.	140.	50.	90.	360.	60.	20.	40.	600.	55.	15.
49YMEIL	130.	150.	50.	90.	360.	80.	20.	40.	400.	55.	15.
50YMEJ	130.	150.	50.	90.	360.	60.	20.	40.	600.	55.	15.
51YMDKP	130.	150.	50.	90.	360.	60.	20.	40.	400.	55.	15.
52YMOKP	130.	150.	50.	90.	360.	60.	20.	40.	800.	55.	15.
53YMEJP	130.	150.	50.	90.	360.	60.	20.	40.	400.	55.	15.
54YMUI	110.	160.	50.	90.	360.	60.	20.	40.	3400.	55.	15.
55YMUJL	110.	160.	50.	90.	360.	60.	20.	40.	1500.	55.	15.
56YMUK	110.	160.	50.	90.	360.	60.	20.	40.	900.	55.	15.
57CNSI	100.	230.	30.	80.	550.	40.	25.	22.	6000.	35.	15.
58CNSJ	100.	230.	30.	80.	550.	40.	25.	22.	5000.	35.	15.
59CNSK	100.	230.	30.	80.	550.	40.	25.	22.	2000.	35.	15.
60BNI	50.	100.	20.	20.	400.	20.	20.	15.	3000.	50.	15.
61BNJ	50.	100.	20.	20.	400.	20.	20.	15.	1500.	50.	15.
62RNI	70.	150.	30.	50.	100.	40.	16.	40.	2000.	35.	15.
63RNJ	70.	150.	30.	50.	100.	40.	16.	40.	2000.	35.	15.
64RNK	70.	150.	30.	50.	100.	40.	16.	40.	1500.	35.	15.
65RNKH	70.	150.	30.	50.	100.	40.	16.	40.	4000.	35.	15.
66RMI	70.	150.	30.	50.	100.	40.	16.	55.	1000.	55.	15.
67RMJ	70.	150.	30.	50.	100.	40.	16.	55.	1500.	55.	15.
68RMK	70.	150.	30.	50.	100.	40.	16.	55.	500.	55.	15.
69RMKH	70.	150.	30.	50.	100.	40.	16.	55.	4000.	55.	15.
70CMSI	100.	230.	30.	80.	550.	40.	25.	22.	3000.	55.	15.
71CMSJ	100.	230.	30.	80.	550.	40.	25.	22.	2500.	55.	15.
72CMSK	100.	230.	30.	80.	550.	40.	25.	22.	1000.	55.	15.
73BMI	50.	100.	20.	20.	400.	20.	20.	15.	1000.	65.	20.
74BMJ	50.	100.	20.	20.	400.	20.	20.	15.	500.	65.	20.
75BNK	50.	100.	20.	20.	400.	20.	20.	15.	500.	50.	20.
76BMK	50.	100.	20.	20.	400.	20.	20.	15.	500.	65.	20.

Table 6-3: Lead intake from food (µg/day) for each population subgroup, input to compartment model.

	INTAKE FROM FOOD (µg/day)						
	POTATO	CEREAL	FRUIT	MEAT	MILK	VTABLE	BACKGR
1	4.8	5.0	24.1	12.7	4.1	17.9	15.0
2	4.8	5.0	24.1	12.7	4.1	17.9	15.0
3	4.8	5.0	24.1	12.7	4.1	17.9	15.0
4	4.5	4.7	24.1	12.7	3.6	17.9	15.0
5	4.5	4.7	24.1	12.7	3.6	17.9	15.0
6	4.8	5.0	24.1	12.7	3.6	17.9	15.0
7	4.8	5.0	24.1	12.7	3.6	17.9	15.0
8	4.8	5.0	24.1	12.7	3.6	17.9	15.0
9	4.8	5.0	24.1	12.7	3.6	17.9	15.0
10	4.8	5.0	24.1	12.7	3.6	17.9	15.0
11	4.8	5.0	24.1	12.7	3.6	17.9	15.0
12	4.5	5.2	24.1	9.5	4.1	17.9	15.0
13	4.5	5.2	24.1	9.5	4.1	17.9	15.0
14	4.5	5.2	24.1	9.5	4.1	17.9	15.0
15	5.0	5.2	24.1	12.7	4.1	17.9	15.0
16	5.0	5.2	24.1	12.7	4.1	17.9	15.0
17	5.0	5.2	24.1	12.7	4.1	17.9	15.0
18	4.5	4.7	24.1	12.7	3.6	17.9	15.0
19	4.5	4.7	24.1	12.7	3.6	17.9	15.0
20	4.5	4.7	24.1	12.7	3.6	17.9	15.0
21	4.8	5.0	24.1	12.7	4.1	17.9	15.0
22	4.8	5.0	24.1	12.7	4.1	17.9	15.0
23	4.8	5.0	24.1	12.7	4.1	17.9	15.0
24	4.5	4.7	24.1	12.7	4.1	17.9	15.0
25	5.0	5.2	24.1	12.7	4.1	17.9	15.0
26	4.5	5.4	24.1	9.5	4.1	17.9	15.0
27	4.5	5.4	24.1	9.5	4.1	17.9	15.0
28	4.5	5.4	24.1	9.5	4.1	17.9	15.0
29	3.3	3.3	24.1	9.5	3.0	13.4	15.0
30	3.3	3.3	24.1	9.5	3.0	13.4	15.0
31	3.3	3.3	24.1	9.5	3.0	13.4	15.0
32	3.0	2.9	24.1	9.5	3.0	13.4	15.0
33	3.0	2.9	24.1	9.5	3.0	13.4	15.0
34	3.0	2.9	24.1	9.5	3.0	13.4	15.0
35	3.3	3.1	24.1	9.5	3.0	17.9	15.0
36	3.3	3.1	24.1	9.5	3.0	13.4	15.0
37	3.3	3.1	24.1	9.5	3.0	13.4	15.0
38	3.0	3.1	24.1	9.5	3.0	13.4	15.0
39	3.5	3.1	24.1	9.5	3.0	13.4	15.0
40	2.8	3.1	24.1	7.4	3.0	13.4	15.0
41	2.8	3.3	24.1	7.4	3.0	13.4	15.0
42	2.8	3.3	24.1	7.4	3.0	13.4	15.0
43	3.5	3.1	24.1	9.5	3.0	13.4	15.0
44	3.5	3.1	24.1	9.5	3.0	13.4	15.0
45	3.5	3.1	24.1	9.5	3.0	13.4	15.0
46	3.0	2.9	24.1	9.5	3.0	13.4	15.0
47	3.0	2.9	24.1	9.5	3.0	13.4	15.0
48	3.0	2.9	24.1	9.5	3.0	13.4	15.0
49	3.3	3.1	24.1	9.5	3.0	17.9	15.0
50	3.3	3.1	24.1	9.5	3.0	13.4	15.0
51	3.3	3.1	24.1	9.5	3.0	13.4	15.0
52	3.3	3.1	24.1	9.5	3.0	13.4	15.0
53	3.3	3.1	24.1	9.5	3.0	13.4	15.0
54	2.8	3.3	24.1	9.5	3.0	13.4	15.0
55	2.8	3.3	24.1	9.5	3.0	13.4	15.0
56	2.8	3.3	24.1	9.5	3.0	13.4	15.0
57	2.5	4.7	14.4	8.5	4.7	8.9	15.0
58	2.5	4.7	14.4	8.5	4.7	8.9	15.0
59	2.5	4.7	14.4	8.5	4.7	8.9	15.0
60	1.3	2.1	9.6	2.1	3.4	4.5	15.0
61	1.3	2.1	9.6	2.1	3.4	4.5	15.0
62	1.8	3.1	14.4	5.3	.8	8.9	15.0
63	1.8	3.1	14.4	5.3	.8	8.9	15.0
64	1.8	3.1	14.4	5.3	.8	8.9	15.0
65	1.8	3.1	14.4	5.3	.8	8.9	15.0
66	1.8	3.1	14.4	5.3	.8	8.9	15.0
67	1.8	3.1	14.4	5.3	.8	8.9	15.0
68	1.8	3.1	14.4	5.3	.8	8.9	15.0
69	1.8	3.1	14.4	5.3	.8	8.9	15.0
70	2.5	4.7	14.4	8.5	4.7	8.9	15.0
71	2.5	4.7	14.4	8.5	4.7	8.9	15.0
72	2.5	4.7	14.4	8.5	4.7	8.9	15.0
73	1.3	2.1	9.6	2.1	3.4	4.5	15.0
74	1.3	2.1	9.6	2.1	3.4	4.5	15.0
75	1.3	2.1	9.6	2.1	3.4	4.5	15.0
76	1.3	2.1	9.6	2.1	3.4	4.5	15.0

Table 6-4: Calculated lead exposure to blood (percent absorbed) for each populations subgroup (Transfact Method).

	EXPOSURE TO BLOOD (TRANSFACT METHOD)							
	POTATO	CEREAL	MEAT	MILK	FRUIT	VTABLE	BACKGR	SUM
1	.3	.3	.8	.3	1.5	1.1	.4	4.7
2	.3	.3	.8	.3	1.5	1.1	.4	4.7
3	.3	.3	.8	.3	1.5	1.1	.4	4.7
4	.3	.3	.8	.2	1.5	1.1	.4	4.6
5	.3	.3	.8	.2	1.5	1.1	.4	4.6
6	.3	.3	.8	.2	1.5	1.1	.4	4.7
7	.3	.3	.8	.2	1.5	1.1	.4	4.7
8	.3	.3	.8	.2	1.5	1.1	.4	4.7
9	.3	.3	.8	.2	1.5	1.1	.4	4.7
10	.3	.3	.8	.2	1.5	1.1	.4	4.7
11	.3	.3	.8	.2	1.5	1.1	.4	4.7
12	.3	.3	.6	.3	1.5	1.1	.4	4.5
13	.3	.3	.6	.3	1.5	1.1	.4	4.5
14	.3	.3	.6	.3	1.5	1.1	.4	4.5
15	.3	.3	.8	.3	1.5	1.1	.4	4.7
16	.3	.3	.8	.3	1.5	1.1	.4	4.7
17	.3	.3	.8	.3	1.5	1.1	.4	4.7
18	.3	.3	.8	.2	1.5	1.1	.4	4.6
19	.3	.3	.8	.2	1.5	1.1	.4	4.6
20	.3	.3	.8	.2	1.5	1.1	.4	4.6
21	.3	.3	.8	.3	1.5	1.1	.4	4.7
22	.3	.3	.8	.3	1.5	1.1	.4	4.7
23	.3	.3	.8	.3	1.5	1.1	.4	4.7
24	.3	.3	.8	.3	1.5	1.1	.4	4.7
25	.3	.3	.8	.3	1.5	1.1	.4	4.7
26	.3	.3	.6	.3	1.5	1.1	.4	4.5
27	.3	.3	.6	.3	1.5	1.1	.4	4.5
28	.3	.3	.6	.3	1.5	1.1	.4	4.5
29	.3	.3	.8	.3	2.1	1.2	.4	5.3
30	.3	.3	.8	.3	2.1	1.2	.4	5.3
31	.3	.3	.8	.3	2.1	1.2	.4	5.3
32	.3	.2	.8	.3	2.1	1.2	.4	5.2
33	.3	.2	.8	.3	2.1	1.2	.4	5.2
34	.3	.2	.8	.3	2.1	1.2	.4	5.2
35	.3	.3	.8	.3	2.1	1.5	.4	5.7
36	.3	.3	.8	.3	2.1	1.2	.4	5.3
37	.3	.3	.8	.3	2.1	1.2	.4	5.3
38	.3	.3	.8	.3	2.1	1.2	.4	5.2
39	.3	.3	.8	.3	2.1	1.2	.4	5.3
40	.2	.3	.6	.3	2.1	1.2	.4	5.0
41	.2	.3	.6	.3	2.1	1.2	.4	5.1
42	.2	.3	.6	.3	2.1	1.2	.4	5.1
43	.3	.3	.8	.3	2.1	1.2	.4	5.3
44	.3	.3	.8	.3	2.1	1.2	.4	5.3
45	.3	.3	.8	.3	2.1	1.2	.4	5.3
46	.3	.2	.8	.3	2.1	1.2	.4	5.2
47	.3	.2	.8	.3	2.1	1.2	.4	5.2
48	.3	.2	.8	.3	2.1	1.2	.4	5.2
49	.3	.3	.8	.3	2.1	1.5	.4	5.7
50	.3	.3	.8	.3	2.1	1.2	.4	5.3
51	.3	.3	.8	.3	2.1	1.2	.4	5.3
52	.3	.3	.8	.3	2.1	1.2	.4	5.3
53	.3	.3	.8	.3	2.1	1.2	.4	5.3
54	.2	.3	.8	.3	2.1	1.2	.4	5.2
55	.2	.3	.8	.3	2.1	1.2	.4	5.2
56	.2	.3	.8	.3	2.1	1.2	.4	5.2
57	.4	.7	1.3	.7	2.3	1.4	.4	7.3
58	.4	.7	1.3	.7	2.3	1.4	.4	7.3
59	.4	.7	1.3	.7	2.3	1.4	.4	7.3
60	.3	.5	.5	.8	2.2	1.0	.4	5.7
61	.3	.5	.5	.8	2.2	1.0	.4	5.7
62	.2	.3	.5	.1	1.2	.8	.4	3.4
63	.2	.3	.5	.1	1.2	.8	.4	3.4
64	.2	.3	.5	.1	1.2	.8	.4	3.4
65	.2	.3	.5	.1	1.2	.8	.4	3.4
66	.1	.2	.3	.1	.9	.6	.4	2.6
67	.1	.2	.3	.1	.9	.6	.4	2.6
68	.1	.2	.3	.1	.9	.6	.4	2.6
69	.1	.2	.3	.1	.9	.6	.4	2.6
70	.4	.7	1.3	.7	2.3	1.4	.4	7.3
71	.4	.7	1.3	.7	2.3	1.4	.4	7.3
72	.4	.7	1.3	.7	2.3	1.4	.4	7.3
73	.4	.6	.6	1.0	3.0	1.4	.4	7.4
74	.4	.6	.6	1.0	3.0	1.4	.4	7.4
75	.4	.6	.6	1.0	3.0	1.4	.4	7.4
76	.4	.6	.6	1.0	3.0	1.4	.4	7.4

Table 6-5: Calculated lead concentration in blood, amount originating from air exposure and amount from food intake as well as calculated air lead exposure, results from compartment model calculations (Method from Fact).

M.AIR - middle lead concentration in air to which each person is exposed
E.INH - inhaled lead from air to blood
E.FOOD - lead-blood concentration from food
TOTAL - total lead-blood concentration
N.PERS - number of persons
% INH - per cent lead to blood from inhalation

	METHOD FROM FACT			
	M.AIR	E.INH	E.FOOD	TOTAL
1XNFI	.31629	1.15734	4.69225	5.84959
2XNFJ	.18874	.69063	4.69225	5.38288
3XNFK	.15508	.56746	4.69225	5.25971
4XNOIL	.30612	1.12014	4.63168	5.75182
5XNOJ	.18025	.65955	4.63168	5.29123
6XNOK	.13921	.50938	4.66040	5.16977
7XNEI	.38138	1.39549	4.66040	6.05588
8XNEJ	.25804	.94420	4.66040	5.60459
9XNFKP	.17358	.63516	4.66040	5.29555
10XNOKP	.15837	.57951	4.66040	5.23991
11XNEJP	.27231	.99642	4.66040	5.65682
12XNUI	.35850	1.31178	4.49033	5.80211
13XNUJ	.20079	.73471	4.49033	5.22504
14XNUK	.15392	.56319	4.49033	5.05352
15XMFI	.32946	1.89438	4.72097	6.61535
16XMFJ	.20412	1.17372	4.72097	5.89469
17XMFK	.16467	.94686	4.72097	5.66783
18XMOI	.31808	1.82898	4.63168	6.46066
19XMOJ	.19544	1.12375	4.63168	5.75543
20XMOK	.15462	.88909	4.63168	5.52077
21XMEI	.39421	2.26670	4.69225	6.95895
22XMEJ	.27257	1.56729	4.69225	6.25954
23XMFKP	.18658	1.07285	4.69225	5.76510
24XMOKP	.17187	.98828	4.66353	5.65181
25XMEJP	.28747	1.65295	4.72097	6.37392
26XMUI	.36942	2.12417	4.50327	6.62744
27XMUJ	.21392	1.23002	4.50327	5.73329
28XMUK	.15502	.89137	4.50327	5.39464
29YNFI	.32579	1.31131	5.28264	6.59395
30YNFJ	.19404	.78102	5.28264	6.06365
31YNFK	.15425	.62086	5.28264	5.90349
32YNOI	.31487	1.26737	5.22536	6.49273
33YNOJ	.18571	.74748	5.22536	5.97283
34YNOK	.14133	.56887	5.22536	5.79422
35YNEIL	.37717	1.51810	5.65020	7.16830
36YNEJ	.24933	1.00356	5.26484	6.26840
37YNFKP	.17904	.72064	5.26484	5.98549
38YNOKP	.16217	.65272	5.24315	5.89587
39YNEJP	.26450	1.06461	5.28654	6.35115
40YNUI	.35604	1.43307	5.03896	6.47203
41YNUJ	.21171	.85213	5.05675	5.90888
42YNUK	.16712	.67268	5.05675	5.72943
43YMFI	.33962	2.14813	5.28654	7.43467
44YMFJ	.20796	1.31534	5.28654	6.60188

Table 6-5, cont.

	METHOD FROM FACT			
	M.AIR	E.INH	E.FOOD	TOTAL
45YMFK	.16850	1.06576	5.28654	6.35230
46YMOI	.32887	2.08013	5.22536	7.30549
47YMOJ	.21328	1.34902	5.22536	6.57438
48YMOK	.15533	.98248	5.22536	6.20784
49YMEIL	.39050	2.46991	5.65020	8.12011
50YMEJ	.26191	1.65656	5.26484	6.92140
51YMDKP	.19134	1.21022	5.26484	6.47506
52YMOKP	.17600	1.11320	5.26484	6.37804
53YMEJP	.27783	1.75730	5.26484	7.02214
54YMUI	.37046	2.34315	5.23924	7.58239
55YMUJL	.22829	1.44394	5.23924	6.68319
56YMUK	.18171	1.14930	5.23924	6.38855
57CNSI	.37871	3.46432	7.26155	10.72588
58CNSJ	.20900	1.91187	7.26155	9.17343
59CNSK	.14338	1.31156	7.26155	8.57311
60BNI	.36217	5.55322	5.67087	11.22409
61BNJ	.20383	3.12544	5.67087	8.79631
62RNI	.34446	1.10916	3.36420	4.47336
63RNJ	.18258	.58792	3.36420	3.95212
64RNK	.12737	.41015	3.36420	3.77435
65RNKH	.36265	1.16773	3.36420	4.53193
66RMI	.36154	1.33047	2.55578	3.88626
67RMJ	.19967	.73477	2.55578	3.29056
68RMK	.14446	.53161	2.55578	3.08739
69RMKH	.12000	.44160	2.55578	2.99738
70CMSI	.39130	5.62497	7.26155	12.88653
71CMSJ	.22208	3.19245	7.26155	10.45400
72CMSK	.15646	2.24909	7.26155	9.51064
73BMI	.37883	7.55141	7.42783	14.97924
74BMJ	.23815	4.74720	7.42783	12.17503
75BNK	.14133	2.16711	7.42783	9.59494
76BMK	.15800	3.14947	7.42783	10.57729

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TITTEL
Concentration of blood lead in three Norwegian towns predicted versus observed values

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A

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3 STIKKORD (à maks. 20 anslag)

Lead in blood	Compartment model	Air lead exposure

REFERAT (maks. 300 anslag, 7 linjer)

I denne rapporten sammenlignes det resultater for kompartment modell med verdier av bly i blod målt ute i felt i tre norske byer. Verdiene estimerte av kompartment modell er tilfredsstillende for voksne kvinner, men for lav for menn og eldre og for høy for barn.

TITLE

ABSTRACT (max. 300 characters, 7 lines)

This report compares values of blood lead predicted by a compartment model for different population subgroups to values measured in the field in three Norwegian towns. The model gives satisfactory predictions for adult women. Predictions for adult men and the elderly were too low, and predictions for children were too high.

* Kategorier: Åpen - kan bestilles fra NILU A
Må bestilles gjennom oppdragsgiver B
Kan ikke utleveres C