Select Current Age, Fishing Start Age (joint probability distribution)

Select Exposure Duration (years)

Select Body Weight Percentile for Individual

Select Fish Ingestion Rate Percentile for Individual

Assign PCB Concentration in Fish by Species and Year

Calculate Angler PCB Intake (constants: Cooking Loss, Averaging Time)

Empirical Distribution based on Connelly 1991 Angler Survey

Probability of Moving out of Region based on Current Age

Minimum of these

Probability of Quitting Fishing

Body Weight varies with time but individual remains at the same percentile of distribution over time

Empirical Ingestion Rates based on Connelly 1991 Angler Survey

Time = 1 to Exposure Duration

Select \( i = 1 \) to 10,000 Anglers

Figure 3-1
Diagram of Monte Carlo Simulation Process
Figure 3-2a
Lognormal Probability Plot - Respondents (N=226)

50th percentile = 4.35
95th percentile = 64.7

Figure 3-2b
Lognormal Probability Plot - Non-Respondents (N=55)

50th percentile = 3.11
95th percentile = 32.6

Figure 3-2c
Lognormal Probability Plot
Combined Respondent + Non-Respondent (N=281)

50th percentile = 4.1
95th percentile = 62.2

Figure 3-3a
Frequency Histogram of Self-Caught Fish Ingestion - New York (Connelly et al., 1992)

Empirical Distribution
50th percentile = 4.0
90th percentile = 31.9

Figure 3-3b
Frequency Histogram of Recreational Fish Ingestion - Lake Ontario (Connelly et al., 1996)

Lognormal
GM = 1.98
GSD = 3.95

Figure 3-3c
Frequency Histogram of Recreational Fish Ingestion - Michigan (West et al., 1989)

Lognormal
GM = 7.9
GSD = 3.16

Figure 3-3d
Frequency Histogram of Self-Caught Fish Ingestion - Maine (Elbert et al., 1993)

Lognormal
GM = 2.5
GSD = 4.25
Figure 3-4a
Fishing Cessation -- Number of Years Until Angler Will Cease
Fishing (Derived)

Figure 3-4b
Age at Which Angler Respondent Reported Began Fishing

Figure 3-4c
Current Age of Anglers When Responded to Survey

Figure 3-4d
Total Fishing Duration All Ages (Derived)

Source: Distributions based on 1991 NY Angler Survey (Connelly et. al., 1992).
Figure 3-5a
Residence Duration in 5 Upper Hudson Counties

50th percentile = 11 years
95th percentile = 41 years

Source: Derived using In-Migration data from 1990 Census (see text).

Figure 3-5b
Overall Exposure Duration
(Combination of Residence Duration and Fishing Duration)

50th percentile = 12 years
95th percentile = 40 years