

implications for prevention. Our objective was to empirically determine fracture risk and the cumulative risk of multiple fractures by year of age during childhood.

Methods We obtained population based age incidence counts of all fractures from the Ambulatory Care Reporting System in the province of Ontario, Canada for boys and for girls from ages 0 through 15. We used the counts to estimate age specific fracture probabilities. Using combinatoric methods we calculated the probabilities of having zero, one, two, or three or more fractures at each age between 0 and 15.

Results By the age of 15, 72.6% of children should have no fractures; 23.5% one fracture, 3.5% two fractures and 0.34% should have three or more fractures. Age specific probabilities for all years are in the paper.

Conclusion If fractures were distributed at random in the population, very few children (under 0.34%) would be expected to have three or more fractures. Three fractures in childhood, or two before the age of 6, may be a threshold at which host factors can be sought in the child or family to inform the prevention of future fractures.

0406 PROBABILITY OF MULTIPLE FRACTURES IN CHILDHOOD

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Background Fractures are common in childhood and yet little data exists on the probability of experiencing multiple fractures during childhood. Such data are important because multiple childhood fractures may indicate a correctable condition in the host child. An example of such a condition would be compromised bone health, due to genetic potential and/or vitamin D insufficiency in the diet. This would have important