

TABLE E-1 The Male and Female Populations of the Different Deciles in the Defined Population Group Used in the Study\*

Deciles	Males		Females	
	No.	Mean Age (yr)	No.	Mean Age (yr)
1	36,217	46.2	39,513	50.1
2	33,892	45.2	38,308	47.9
3	27,735	42.4	31,580	45.1
4	21,564	43.7	23,769	45.8
5	28,711	44.1	32,298	46.5
6	19,357	45.1	22,058	47.2
7	28,024	43.4	31,950	45.3
8	26,309	41.2	28,493	43.1
9	14,978	44.9	17,028	47.3
10	7325	43.1	8446	43.4
r	-0.82	-0.44	-0.79	-0.66
r <sup>2</sup>	0.6724	0.1936	0.6241	0.4356
95% CI	0.40 to 0.95	-0.17 to 0.56	0.32 to 0.93	0.05 to 0.82
P value	0.004	0.2	0.006	0.04

\*The average ages of the different populations are shown as are the statistical correlations between population size and deprivation and average age and deprivation. CI = confidence interval.

TABLE E-2 The Basic Fracture Epidemiology of the 6872 Fractures Reviewed During the Study Year\*

Fracture Types (OTA Class)	Fracture Epidemiology			Association of Fracture Types with Increasing Age							
	Incidence <i>n/10<sup>3</sup>/yr</i>	Mean Age (yr)	Sex Ratio (%)	Male				Female			
				r	r <sup>2</sup>	95% CI	P Value	r	r <sup>2</sup>	95% CI	P Value
Ankle (44)	123.9	49	47/53	-0.51	0.26	-0.12 to 0.65	0.08	<b>0.86</b>	<b>0.74</b>	<b>0.51 to 0.97</b>	<b>0.001</b>
Calcaneus (73)	10.4	38.5	78/22	<b>-0.63</b>	<b>0.40</b>	<b>0.01 to 0.79</b>	<b>0.04</b>	0.49	0.24	-0.14 to 0.62	0.09
Carpus (24)	39.2	35.8	70/30	<b>-0.7</b>	<b>0.49</b>	<b>0.12 to 0.86</b>	<b>0.02</b>	-0.05	0.003	-0.05 to 0.05	0.45
Clavicle (07)	54.9	42.3	72/28	-0.18	0.03	-0.14 to 0.20	0.33	<b>0.78</b>	<b>0.61</b>	<b>0.29 to 0.92</b>	<b>0.01</b>
Distal part of femur (33)	7.7	63.7	35/65	0.55	0.30	-0.09 to 0.69	0.06	<b>0.73</b>	<b>0.53</b>	<b>0.18 to 0.88</b>	<b>0.006</b>
Distal end of humerus (13)	9.9	57.9	35/65	0.38	0.14	-0.19 to 0.47	0.16	<b>0.82</b>	<b>0.67</b>	<b>0.40 to 0.95</b>	<b>0.003</b>
Distal end of radius and ulna (23)	227.8	56.6	31/69	0.19	0.04	-0.16 to 0.24	0.31	<b>0.91</b>	<b>0.83</b>	<b>0.67 to 0.99</b>	<b>&lt;0.001</b>
Distal end of tibia (43)	11	42	65/35	-0.39	0.15	-0.19 to 0.49	0.15	<b>0.56</b>	<b>0.31</b>	<b>0.08 to 0.71</b>	<b>0.05</b>
Femoral diaphysis (32)	17.6	69.5	44/56	<b>0.74</b>	<b>0.55</b>	<b>0.21 to 0.89</b>	<b>0.01</b>	<b>0.74</b>	<b>0.55</b>	<b>0.20 to 0.89</b>	<b>0.01</b>
Finger phalanges (26)	133.1	39.6	64/36	-0.11	0.01	-0.09 to 0.11	0.39	0.39	0.15	-0.19 to 0.49	0.15
Humeral diaphysis (12)	13.1	58.4	51/49	<b>0.59</b>	<b>0.35</b>	<b>0.05 to 0.75</b>	<b>0.047</b>	<b>0.85</b>	<b>0.72</b>	<b>0.48 to 0.97</b>	<b>0.002</b>
Metacarpus (25)	137.8	31.5	79/21	<b>-0.57</b>	<b>0.32</b>	<b>0.08 to 0.72</b>	<b>0.05</b>	0.02	0.0004	-0.02 to 0.02	0.48
Metatarsus (81)	81	44.8	38/62	-0.12	0.01	-0.09 to 0.11	0.39	0.08	0.006	-0.08 to 0.09	0.42
Midfoot (74 to 76)	7.1	44.1	46/54	-0.44	0.19	-0.17 to 0.55	0.12	0.09	0.008	-0.08 to 0.10	0.41
Patella (45)	10.8	58.6	78/22	0.18	0.03	-0.14 to 0.20	0.32	<b>0.83</b>	<b>0.69</b>	<b>0.42 to 0.95</b>	<b>0.003</b>
Pelvis (62)	24.9	66.7	40/60	<b>0.7</b>	<b>0.49</b>	<b>0.12 to 0.86</b>	<b>0.02</b>	<b>0.7</b>	<b>0.49</b>	<b>0.12 to 0.86</b>	<b>0.017</b>
Proximal part of humerus (11)	98.7	66.6	31/69	<b>0.69</b>	<b>0.48</b>	<b>0.11 to 0.85</b>	<b>0.02</b>	<b>0.91</b>	<b>0.83</b>	<b>0.67 to 0.99</b>	<b>&lt;0.001</b>
Proximal part of femur (31)	157.9	80.4	27/73	<b>0.72</b>	<b>0.52</b>	<b>0.16 to 0.88</b>	<b>0.02</b>	<b>0.76</b>	<b>0.58</b>	<b>0.25 to 0.91</b>	<b>0.007</b>
Proximal end of radius (21)	52.7	43.6	49/51	<b>-0.63</b>	<b>0.40</b>	<b>0.01 to 0.79</b>	<b>0.03</b>	0.11	0.01	-0.10 to 0.12	0.39
Proximal end of radius and ulna (21)	3.5	65.1	33/67	0.39	0.15	-0.19 to 0.49	0.15	<b>0.74</b>	<b>0.55</b>	<b>0.20 to 0.89</b>	<b>0.01</b>
Proximal part of tibia (41)	16	54.5	47/53	-0.05	0.00	-0.03 to 0.03	0.45	<b>0.73</b>	<b>0.53</b>	<b>0.18 to 0.88</b>	<b>0.01</b>
Proximal end of ulna (21)	12.9	55.9	45/55	<b>0.65</b>	<b>0.42</b>	<b>0.03 to 0.81</b>	<b>0.03</b>	<b>0.73</b>	<b>0.53</b>	<b>0.18 to 0.88</b>	<b>0.01</b>
Radial and ulnar diaphyses (22)	13.9	35.9	78/22	<b>-0.58</b>	<b>0.34</b>	<b>0.06 to 0.74</b>	<b>0.05</b>	0.4	0.16	-0.19 to 0.51	0.14
Scapula (09)	10	52.9	44/56	0.51	0.26	-0.13 to 0.65	0.08	0.48	0.23	-0.15 to 0.61	0.09
Talus (72)	6.4	36.9	64/36	0.39	0.15	-0.19 to 0.49	0.25	-0.55	0.30	-0.09 to 0.70	0.06
Tibia and fibular diaphyses (42)	19.9	39	78/22	-0.45	0.20	-0.17 to 0.57	0.11	<b>0.81</b>	<b>0.66</b>	<b>0.37 to 0.94</b>	<b>0.004</b>
Toe phalanges (82)	25.3	37.5	55/45	-0.32	0.10	-0.19 to 0.39	0.20	<b>-0.77</b>	<b>0.59</b>	<b>0.27 to 0.92</b>	<b>0.008</b>
All fractures	1327.8	51.9	48/52	0.5	0.25	-0.14 to 0.64	0.09	<b>0.84</b>	<b>0.71</b>	<b>0.45 to 0.96</b>	<b>0.002</b>

\*The fractures have been defined according to the Orthopaedic Trauma Association (OTA) classification<sup>25</sup>. The table also shows the probabilities, correlation coefficients, and confidence limits gained from assessing the relationship of increasing fracture incidence with increasing age. In males, fractures of the calcaneus, carpus, and proximal end of the radius show an association between fracture incidence and decreasing age. In females, this only occurs in toe phalangeal fractures. CI = confidence interval.

TABLE E-3 The Probabilities, Correlation Coefficients, and Confidence Limits Gained from Testing the Association Between Increasing Fracture Incidence and Social Deprivation in Each Age Range\*

Age (yr)	Males				Females			
	r	r <sup>2</sup>	95% CI	P Value	r	r <sup>2</sup>	95% CI	P Value
15-19	0.56	0.31	0.08 to 0.71	0.045	0.66	0.44	0.05 to 0.82	0.02
20-29	0.7	0.49	0.12 to 0.86	0.01	0.68	0.46	0.09 to 0.84	0.01
30-39	0.76	0.58	0.25 to 0.91	0.005	0.73	0.53	0.18 to 0.88	0.008
40-49	0.72	0.52	0.16 to 0.88	0.009	0.7	0.49	0.12 to 0.86	0.01
50-59	0.64	0.41	0.02 to 0.80	0.02	0.62	0.38	0.08 to 0.78	0.02
60-69	0.74	0.55	0.20 to 0.89	0.007	0.63	0.40	0.01 to 0.79	0.03
70-79	0.66	0.44	0.05 to 0.82	0.02	0.65	0.42	0.04 to 0.81	0.02
80-89	0.59	0.35	0.05 to 0.74	0.04	0.62	0.38	0.01 to 0.78	0.03
≥90	0.45	0.20	-0.17 to 0.57	0.09	0.64	0.41	0.02 to 0.80	0.02
All ages	0.74	0.55	0.20 to 0.89	0.007	0.7	0.49	0.12 to 0.86	0.01

\*CI = confidence interval.

TABLE E-4 The Probabilities, Correlation Coefficients, and Confidence Limits Gained from Testing the Association Between Increasing Fracture Incidence and Social Deprivation in Each Fracture Type in Males and Females

Fracture	Males				Females			
	r	r <sup>2</sup>	95% CI	P Value	r	r <sup>2</sup>	95% CI	P Value
Ankle	0.65	0.42	0.04 to 0.81	0.03	0.82	0.67	0.40 to 0.95	0.004
Calcaneus	0.71	0.50	0.14 to 0.87	0.03	0.41	0.17	-0.18 to 0.52	0.3
Carpus	0.68	0.46	0.09 to 0.84	0.02	0.67	0.44	0.7 to 0.83	0.03
Clavicle	0.6	0.36	0.03 to 0.75	0.045	0.72	0.52	0.16 to 0.88	0.02
Distal part of femur	0.98	0.96	0.92 to 1.0	<0.0001	0.65	0.42	0.04 to 0.81	0.04
Distal part of humerus	0.89	0.79	0.60 to 0.98	0.04	0.32	0.10	-0.19 to 0.40	0.22
Distal end of radius and ulna	0.78	0.61	0.29 to 0.92	0.05	0.6	0.36	0.03 to 0.75	0.04
Distal part of tibia	0.57	0.32	0.07 to 0.72	0.07	0.55	0.30	-0.09 to 0.70	0.06
Femoral diaphysis	0.61	0.37	0.02 to 0.77	0.04	0.62	0.38	0.01 to 0.77	0.05
Finger phalanges	0.68	0.46	0.09 to 0.84	0.02	0.65	0.42	0.03 to 0.81	0.03
Humeral diaphysis	0.88	0.77	0.57 to 0.98	0.002	0.51	0.26	0.12 to 0.65	0.08
Metacarpus	0.82	0.67	0.40 to 0.95	0.004	0.75	0.56	0.23 to 0.9	0.01
Metatarsus	0.71	0.50	0.14 to 0.87	0.02	0.76	0.58	0.25 to 0.91	0.008
Midfoot	0.74	0.55	0.20 to 0.89	0.05	0.7	0.49	0.12 to 0.86	0.03
Patella	0.47	0.22	-0.16 to 0.60	0.15	0.58	0.34	0.06 to 0.73	0.05
Pelvis	0.82	0.67	0.40 to 0.95	0.004	0.35	0.12	-0.19 to 0.44	0.09
Proximal part of humerus	0.19	0.04	-0.15 to 0.22	0.31	0.69	0.48	0.10 to 0.85	0.02
Proximal part of femur	0.66	0.44	0.05 to 0.82	0.03	0.67	0.45	0.07 to 0.83	0.02
Proximal end of radius	0.74	0.55	0.20 to 0.89	0.02	0.69	0.48	0.10 to 0.85	0.02
Proximal end of radius and ulna	—	—	—	—	0.04	0.002	-0.04 to 0.04	0.48
Proximal part of tibia	0.75	0.56	0.23 to 0.90	0.02	0.64	0.41	0.02 to 0.80	0.03
Proximal part of ulna	0.75	0.56	0.23 to 0.90	0.01	0.49	0.24	-0.14 to 0.62	0.09
Radial and ulnar diaphyses	0.43	0.18	0.18 to 0.55	0.01	0.36	0.13	-0.19 to 0.45	0.17
Scapula	0.9	0.81	0.63 to 0.99	0.003	0.84	0.71	0.45 to 0.96	0.01
Talus	0.34	0.12	-0.19 to 0.42	0.21	0.38	0.14	-0.19 to 0.48	0.2
Tibia and fibular diaphyses	0.61	0.37	0.02 to 0.77	0.04	0.25	0.06	-0.17 to 0.30	0.26
Toe phalanges	0.71	0.50	0.14 to 0.87	0.02	0.71	0.50	0.14 to 0.87	0.02
All fractures	0.7	0.49	0.12 to 0.86	0.023	0.65	0.42	0.04 to 0.81	0.042

The results for all fractures are also shown. There were insufficient male patients with proximal radius and ulnar fractures to permit statistical evaluation.