

# Thinner melanomas detected by digital monitoring

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MoleMap  
by Dermatologists



## Introduction

New melanoma management guidelines recommend baseline whole-body photography and sequential digital dermoscopy imaging (mole mapping) for early detection of melanoma.<sup>1</sup> More than 27,000 individuals enrolled in a privately funded nationwide mole-mapping programme (MoleMap NZ) during 2005-7.

## Method

We compared a random sample of 100 melanomas diagnosed by mole mapping during a three-year period (2005-7) with New Zealand Cancer Registry (NZCR) data for invasive melanomas, 1994-2004.<sup>2</sup>

## Results

The MoleMap sample included 52 invasive and 48 in-situ melanomas; 90% were superficial spreading type, 6% were lentigo-maligna type and 4% were nodular on histology. Forty-eight were diagnosed on the first visit and the rest by serial digital mole mapping. Thirty-five per cent of the patients reported having had a previous primary melanoma. In 60 cases, the patients were concerned by the lesion; the rest (40) were detected solely by screening.

Figure 1 shows an example of serial digital mole mapping in a 41-year-old woman, which revealed two in-situ melanomas.

Figure 1. Screen shot of MoleMap programme showing first melanoma (a); macro and dermoscopy images of second melanoma taken in (b) August 2006 and (c) September 2007.

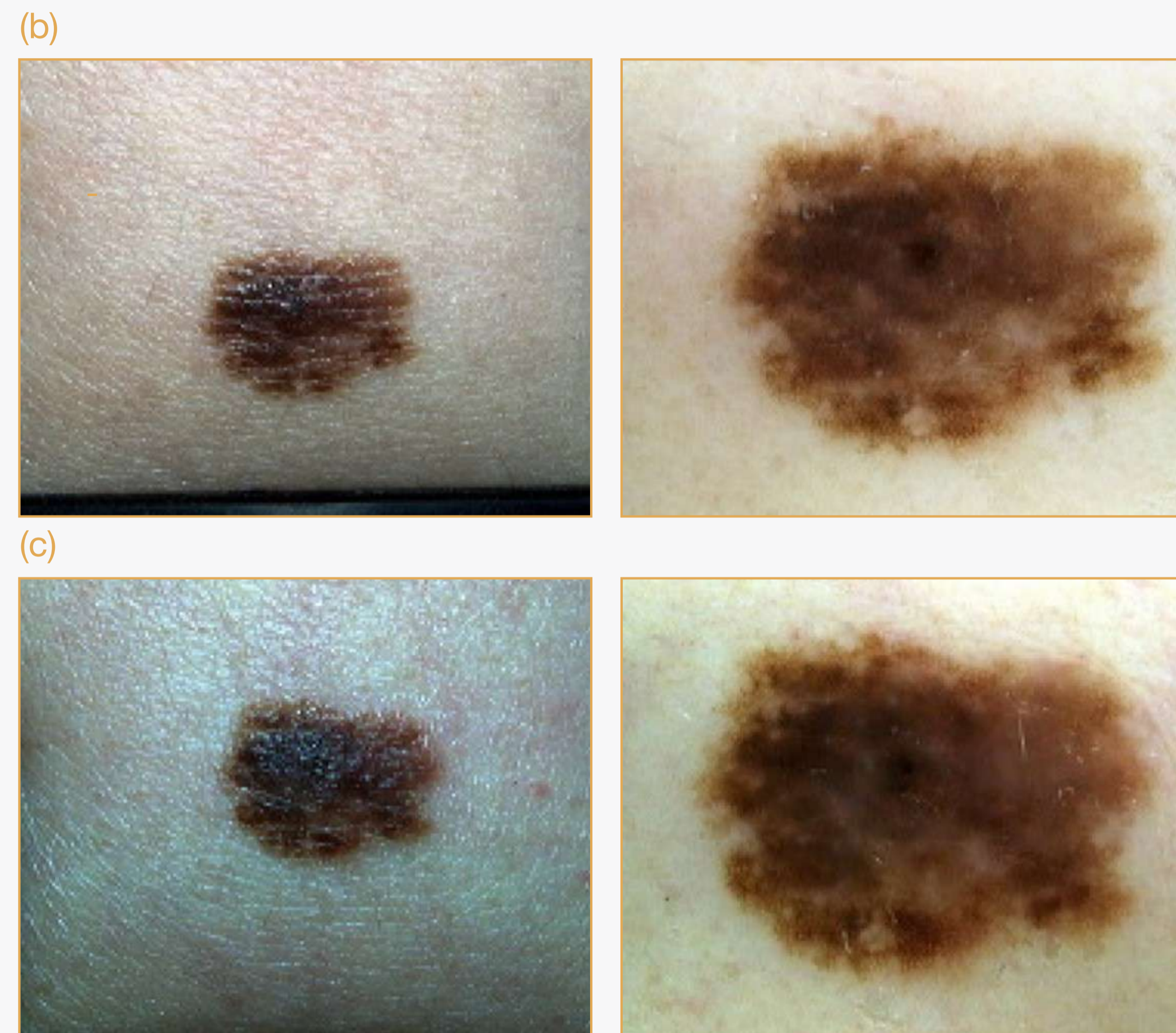
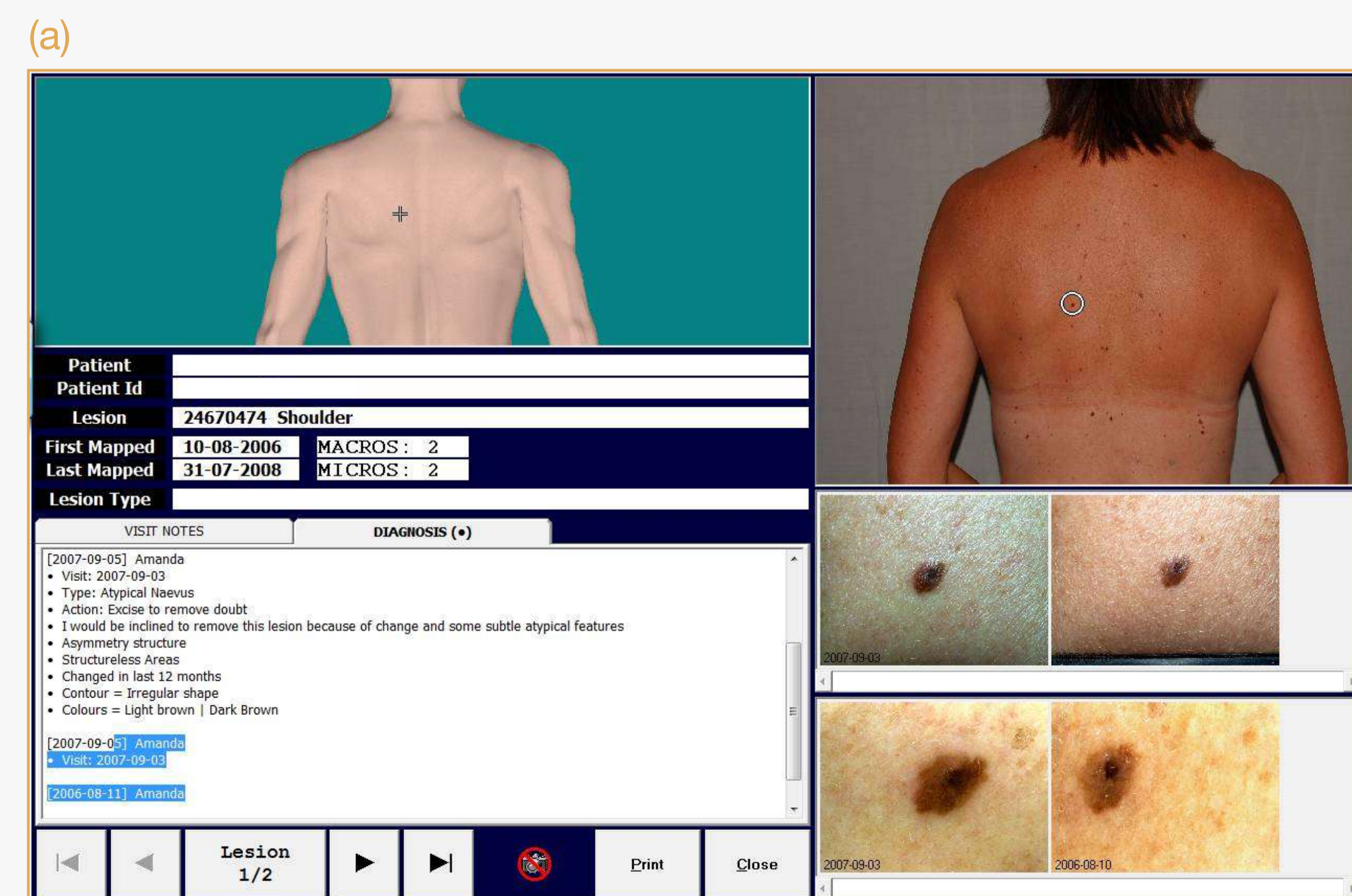
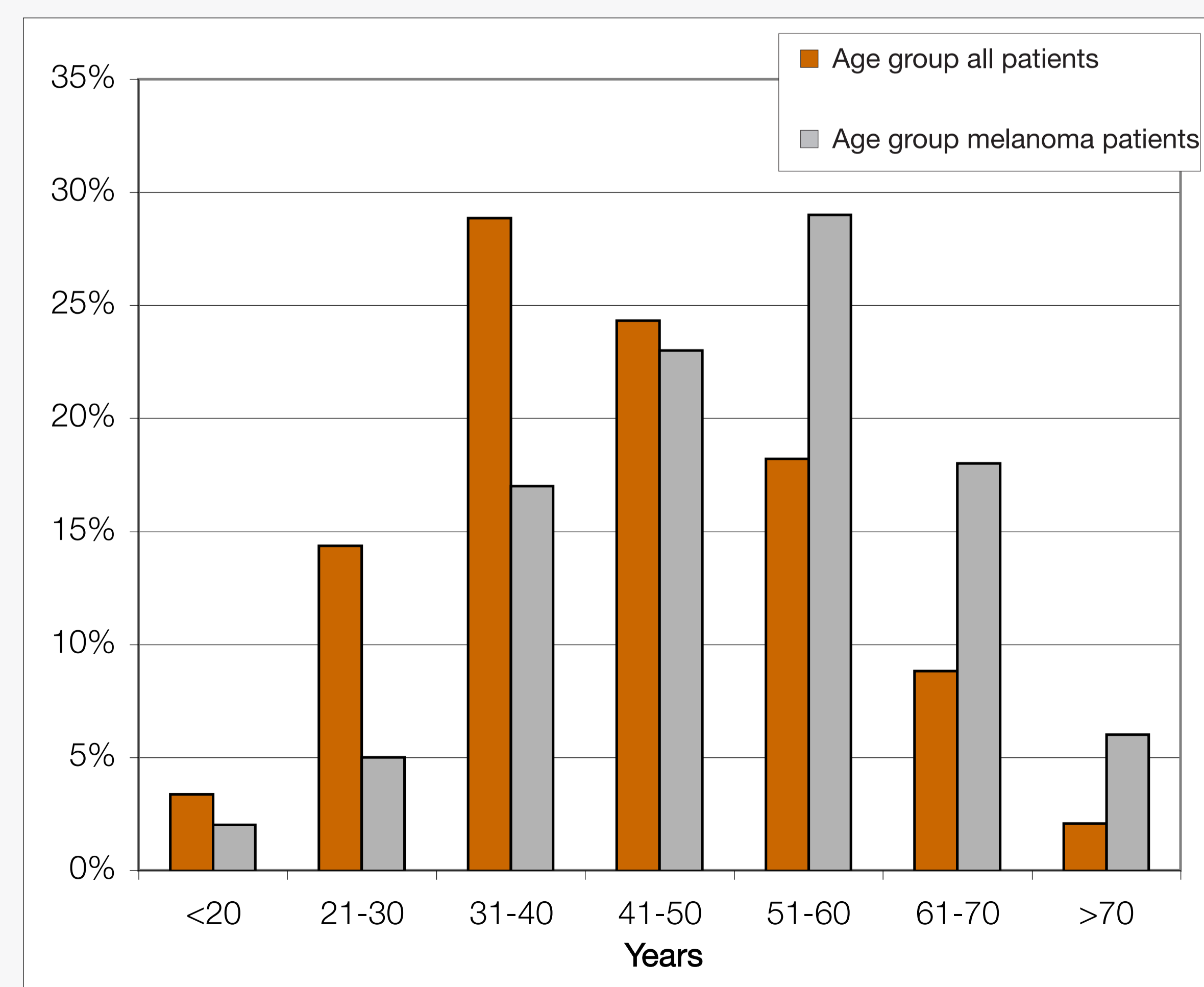


Figure 2. Age groups of patients attending for MoleMap compared to those with melanoma.



Only 8 tumours (8%) were detected on the head and neck by MoleMap (19% NZCR). Location was most often on the trunk in males and on the leg in females, as was the case with the NZCR [Table 1].

Table 1. Location of melanoma.

	MoleMap NZ (2005 - 2007)		New Zealand Cancer Registry (1994 - 2004)	
	Female N	Male (%)	Female N	Male (%)
Head/neck	3	5.7%	5	10.6%
Trunk	15	28.3%	25	53.2%
Arm (including shoulder)	13	24.5%	10	21.3%
Leg (including hips)	22	41.5%	7	14.9%
Total	53	100.0%	47	100.0%

Sixty-nine percent of invasive melanomas had a Breslow thickness < 0.75 mm by MoleMap (52% NZCR). The average Breslow thickness in an invasive melanoma diagnosed on the first MoleMap visit was 0.87 mm (range 0.30-3.35 mm). It was 0.67 mm (0.22-1.60 mm) when detected by serial MoleMap monitoring. Only one melanoma diagnosed by MoleMap was thicker than 3 mm (11% NZCR) [Table 2].

Table 2. Breslow thickness of melanoma.

Thickness (mm)	MoleMap NZ (2005 - 7)		New Zealand Cancer Registry (1994 - 2004)	
	N	(%)	N	(%)
0 - 0.75	36	69.2%	8289	52.3%
0.76 - 1.49	11	21.2%	3411	21.5%
1.5 - 3.0	4	7.7%	2432	15.4%
>3.0	1	1.9%	1707	10.8%
Total	52	100.0%	15839	100.0%

## Conclusion

Mole mapping with sequential digital dermoscopy detects melanoma at an earlier stage than traditional diagnostic methods.

## References

1. Clinical Practice Guidelines for the Management of Melanoma in Australia and New Zealand. The Cancer Council Australia and Australian Cancer Network, Sydney and New Zealand Guidelines Group, Wellington (2008); p31.
2. Richardson A, Fletcher L, Sneyd MJ, Cox B, Reeder A I. The incidence and thickness of cutaneous malignant melanoma in New Zealand 1994-2004. NZ Med J 2008;121;18-26.