Just the Facts.
Number 1. Pressure ulcers

The first in an occasional series of factsheets covering the epidemiology, costs and consequences of common wound types. This series is produced by the Welsh Wound Network to provide commercial organisations and individual clinicians and researchers with rapid access to recent data both to support funding applications and provide background information for publications.

Definition and Presentation
A pressure ulcer is localised injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear. A number of contributing or confounding factors are also associated with pressure ulcers; the significance of these factors is yet to be elucidated.

Types of pressure ulcer.
Category I. Non-blanchable erythema. Intact skin with non-blanchable redness of a localised area usually over a bony prominence. Discoloration of the skin, warmth, oedema, hardness or pain may also be present. Darkly pigmented skin may not have visible blanching.

Category II. Partial thickness. Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, without slough. May also present as an intact or open/ruptured serum-filled blister.

Category III. Full thickness skin loss. Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle are not exposed. Some slough may be present. May include undermining and tunneling.

Category IV. Full thickness skin loss. Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present. Often include undermining and tunneling.

Photographs courtesy of the European Pressure Ulcer Advisory Panel
Numbers of people with pressure ulcers.

In 2007 Vanderwee and colleagues\(^1\) reported a pilot pressure ulcer prevalence survey conducted across 26 hospitals in Belgium, Italy, Portugal, Sweden and the UK. 5947 patients were included in the survey with 1078 (18.3%) having pressure ulcers. By country the proportion of patients surveyed who had pressure ulcers varied - Italy (8.3%), Portugal (12.5%), Belgium (21.0%), UK (21.9%), Sweden (22.9%).

Most of the pressure ulcers reported by Vanderwee et al\(^2\) were Category I (n=454) or Category II pressure ulcers (n=282). Full thickness pressure ulcers were less common - Category III (n=199) and Category IV (n=143).

Distribution of pressure ulcers by category\(^3\)

Pressure ulcers most commonly occurred at the sacrum (n=532) and the heels (n=484). Other common sites for pressure ulcer development were the ischial tuberosities (n=186), the ankles (n=149), elbows (n=143) and the hips (n=136).

In a audit across acute and community services in Bradford, Vowden and Vowden\(^3\) reported that the prevalence of pressure ulceration within the population receiving healthcare was 0.74 per 1000 population. Of the people with pressure ulcers few (n=40, 11%) were located in hospital suggesting that current pressure ulcer epidemiology and costs may be understated given their reliance on hospital based surveys of pressure ulcers.

Numbers of people with pressure ulcers in Wales.

Three surveys have recently been undertaken using the same methods as Vanderwee et al\(^4\) so providing broadly comparable data. Two of these were conducted across all Wales and covered orthopaedic wards and community hospitals\(^5\), the third covered all acute and community services in North Wales\(^6\).

Data was gathered upon 1196 patients (581, 48.6% within orthopaedic units with 615 located in community hospitals). Of the 1196 patients 81 (13.9%) and 162 (26.7%) had pressure ulcers in orthopaedic and community hospitals respectively.

While the majority of people experienced superficial pressure ulcers 78 had full-thickness pressure ulcers, with 36.4% of patients with pressure ulcers in community hospitals having severe wounds.

Across North Wales data was collected upon 1279 patients, of these 217 had pressure ulcers (16.9%). 67 and 106 people had Category I and II pressure ulcers respectively while 44 patients had full thickness wounds (Category III n=35 and Category IV n=9).

Across all the surveys described in this fact sheet pressure ulcers were common affecting almost 20% of all patients.

The consequences of having a pressure ulcer.

Essex and colleagues\(^7\) have reported a number of consequences for people who have pressure ulcers - these included increased pain, reduced vitality, reduced physical activity and generally reduced quality of life. Pressure ulcers may also lead to death with 171 death certificates in the UK in 1986 listing pressure ulcers as the cause of death with a further 1929 certificates citing pressure ulcers as contributing to death\(^8\).

The costs of pressure ulcers.

Posnett and Franks\(^9\) considered the national cost of pressure ulcers to the NHS to be between £1,760 million and £2,640 million each year, making pressure ulcers the single most costly chronic wound to the Health Service. This calculation was based upon the original modelling of Bennett and colleagues\(^10\) who estimated that the typical cost of treating Category I pressure ulcers would be £1064, rising to £4402 for a Category II ulcer then to £7313 and £10,551 for Category III and IV pressure ulcers respectively.

Sources of information