

**INTRODUCTION:** Home healthcare has been growing in size and complexity in Brazil, leading to an increase in stream of professionals working at patients homes, use of invasive devices, and, potentially, healthcare-associated infections (HAIs). Monitoring the incidence of HAIs is a method for assessing the care provided.

**OBJECTIVE:** To identify the incidence of HAIs associated with invasive devices in patients from a private home care company and to compare it with the incidence of HAIs in patients from Brazilian intensive care units (ICU).

**METHOD:** This study used the surveillance of infections recommended by APIC<sup>1</sup>, NHSN-CDC<sup>2</sup> and ANVISA<sup>3</sup>, in order to measure HAIs associated to invasive devices in the home care setting from January to November 2018 and to compare it with the incidence in Brazilian ICUs in 2016 as reported by ANVISA<sup>4</sup>.

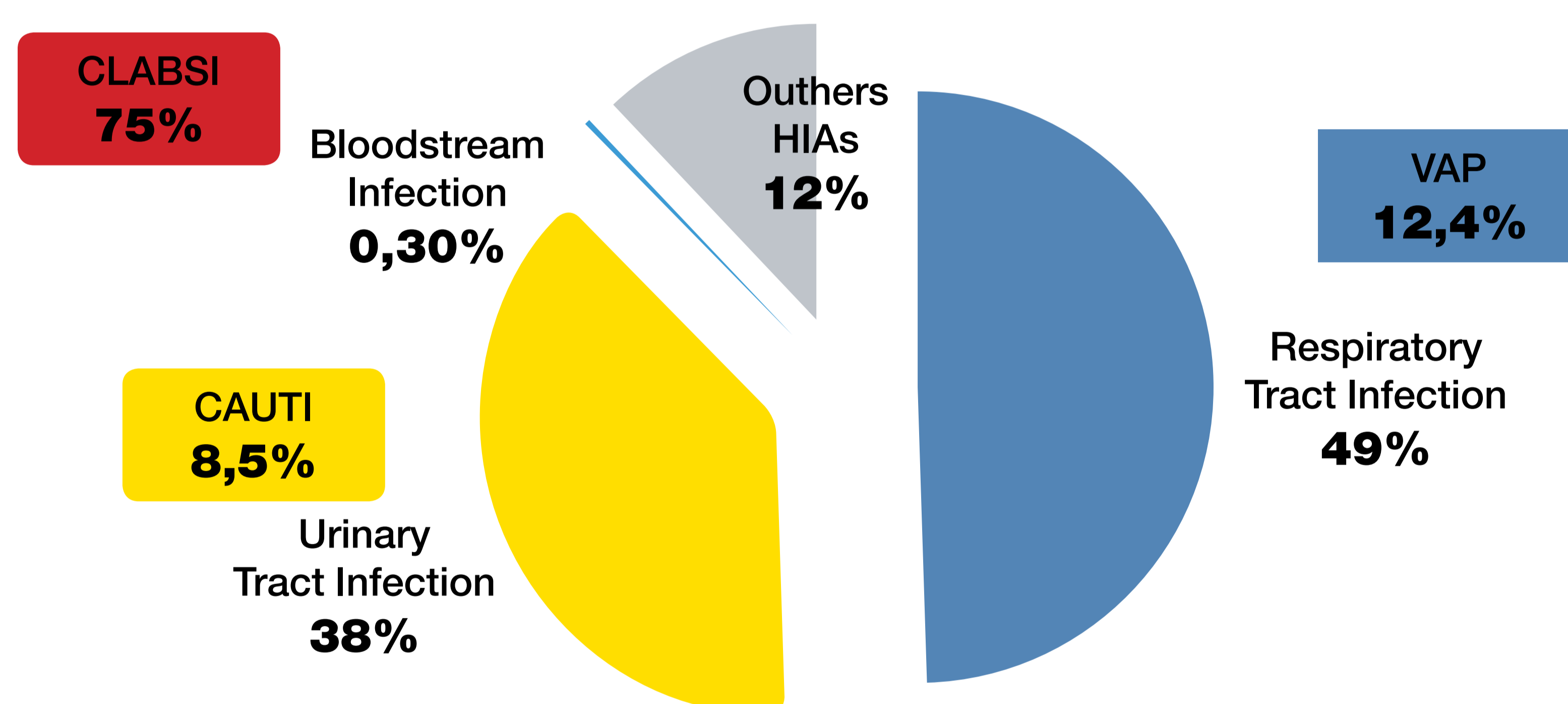
**RESULTS:** The incidence density of HAIs was 3.8 per 1000 patients-day (1063 infections/275.123 patients-day).

The most common HAI was respiratory tract infection (49.3%); 12.4% of these were cases of ventilator-associated pneumonia (VAP), with a density of 1.33/1000 ventilator-days (ANVISA 50th percentile: 12/1000 ventilator-days).

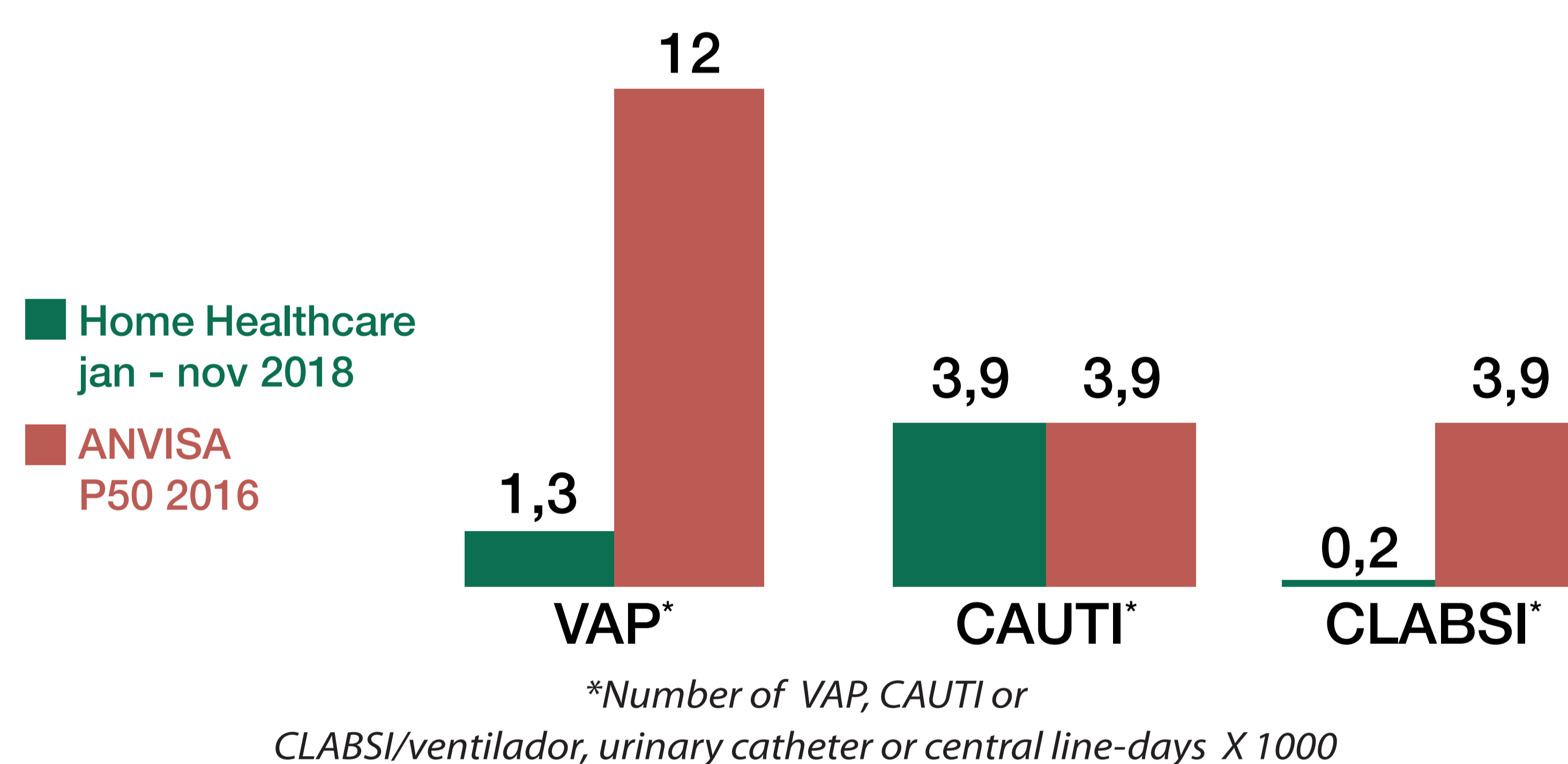
Urinary tract infection accounted for 38.4%; 8.5% of these were catheter-associated infections (CAUTI), with a density of 3.93/1000 urinary catheter-days (equal to ANVISA 50th percentile).

Bloodstream infection had the lowest incidence (0.3%); 75% of these were central line-associated infections (CLABSI), with a density of 0.15/1000 central line-days (ANVISA 50th percentile: 3.3/1000 central line-days).

**Home HealthCare incidence density of HAIs and HAIs associated invasive devices**



**Incidence density of HAIs associated invasive devices: comparison between Home Healthcare and ANVISA.**



**POOLED MEANS AND KEY PERCENTILES OF THE HAIs ASSOCIATED TO INVASIVE DEVICES**

Type of infection	HOME HEALTHCARE		PERCENTILE ANVISA					
	Number Infections	Dispositive-days	Pooled Mean	10%	25%	50% median	75%	90%
Central line-associated bloodstream infections CLABSI	3	20.071	0,15	0	1,1	3,3	6,6	11,8
Ventilator-associated pneumonia VAP	65	48.890	1,33	2,4	5,9	12	20,5	30,8
Catheter-associated urinary tract infections CAUTI	35	8.914	3,93	0,5	1,7	3,9	7,6	13,5

**DISPOSITIVE UTILIZATION RATIO**

DISPOSITIVE	HOME HEALTHCARE	ANVISA
Central-line	7,3%	43,6%
Ventilator	17,7%	30,2%
Urinary-catheter	3,2%	41,8%

Number of ventilator, urinary catheter or central line-days / patients-day X 100

**CONCLUSION:** Home treatment results in reduced incidence of HAIs when compared with the hospital setting, which should be considered for discharging a patient as early as possible and then providing care at home.

**References**  
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3. ANVISA. Critérios Diagnósticos de Infecções Relacionadas à Assistência à Saúde. 2017;  
4. ANVISA. Boletim Segurança do Paciente e Qualidade em Serviços de Saúde nº 16: Avaliação dos indicadores nacionais das Infecções Relacionadas à Assistência à Saúde IRAS e Resistência microbiana do ano de 2016. GVIMS/GGTES/ANVISA, dezembro 2017. disponível em: <https://www20.anvisa.gov.br/segurancadopaciente/index.php/publicacoes/item/boletim-seguranca-do-paciente-e-qualidade-em-servicos-de-saude-n-16-avaliacao-dos-indicadores-nacionais-das-infeccoes-relacionadas-a-assistencia-a-saude-iras-e-resistencia-microbiana-do-ano-de-2016>