Introdução: An Internship from a Medical School comprises the period in which the student enters into rotations in several fields of work. In Public Health, students have the opportunity to approach the Primary Health Care, seizing several different realities such as integrality, organization of health services, participatory management, social control, and levels of care and health education.

Objetivos: Reporting experiences faced by medical students at the Universidade do Estado do Rio Grande do Norte in the rural internship from Primary Health Care in Mossoró-RN, and emphasize the relevance of the adequacy of how to teach Medicine under regional needs as a modifier instrument of social reality.

Metodologia ou Descrição da Experiência: This experience report is based on the integrative method. It was developed an analysis with qualitative descriptive design that has excelled for observation, recording and correlation of facts and phenomena about the experiences lived by students as they pass through the rural internship, which is equal to 25 % of the total workload in the boarding public health internship, given in four rural settlements in Mossoró-RN.

Resultados: The Rural Basic Units presented a multidisciplinary team close to number recommended by Brazilian Ministry of Health, with some basic drugs and simple equipment available. Each settlement receive professionals weekly in running shifts, witch difficult the achievement of health education activities and home visits. The physical structure of some units have weaknesses, such as lack of water, absence of ceiling and fences. Inadequate maintenance of equipment does not allow orthodontic care in some units.

Conclusão ou Hipóteses: The weaknesses found represent a challenge to the activity of the team in front of the principles of the Brazilian Unified Health System (SUS), and highlights the need for investment in this sector. Despite the difficulties encountered, the insertion of medical students in a rural area has been a rewarding and enriching experience closer to the reality in which they will be inserted.

Palavras-chave: Primary Health Care. Medical Education. Rural Stage.