

Adequately Preparing Physicians for Rural Health Practice

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Medical literature is replete with information regarding the need for physicians to serve the underserved and provide rural health care services. Many institutions and educators have considered how best to recruit and retain physicians in rural areas in order to improve access to health care for the rural population.^{1,2,3} Others have elaborated on the benefits medical education can provide for rural health.⁴

Less attention has been given to ensuring that physicians who choose a rural health setting are confident and competent once they begin their practice.⁵ While training physicians in academic health centers provides a wealth of resources, expertise and opportunities, the transition from working among multiple experts to working alone with no subspecialists can be quite daunting. How did we get to the point of training physicians in an environment so different than where they may practice? The roots of moving medical education from multiple diverse geographic areas to fewer academic centers can be traced back to the 1910 Flexner report.⁶ This report, funded and authorized

by the Carnegie foundation, noted that “in the past 25 years there had been an enormous over-production of uneducated and ill trained medical practitioners”.¹ Amazingly, the report states that at that time, there was one doctor for every 400 persons in large cities but in small towns with a population of less than 200, there were two to three doctors per person! The report concluded that we needed fewer and better doctors and that medical schools would best be located within university settings in large cities. Thus the philosophy leading to our current system, which has become the most respected medical education system and one in which individuals worldwide strive to participate.

Marshall University Joan C. Edwards School of Medicine and its associated residency programs have the advantage of being the best of both worlds. While Marshall is a leader in academics and scholarly activity, it also has close ties and proximity to rural areas. Marshall’s Department of Pediatrics has recently focused on the topic of rural health practice by surveying residency graduates practicing in rural areas. Leadership has also invited them



back to present grand rounds and have discussion sessions with current residents regarding how to best prepare for a rural general pediatric practice. These young physicians beginning their rural practice careers have been quite insightful and have provided useful guidance not only for the residency program, but also for individual residents as well. Many are working in areas where they have no pediatric subspecialists. They provide traditional pediatric care including outpatient clinic, inpatient hospital care, newborn nursery, neonatal abstinence syndrome care, response to emergency room for seizures, codes and traumas, and attendance at deliveries. One recounted resuscitating a 24-week gestation infant on a snowy evening, only to find that the closest NICU could not send a team by either ground or air to come for transport. This young physician stayed by the baby's bedside, maintaining her own rural NICU overnight.

In regard to advice for resident physicians they have provided the following bits of wisdom:

- During your residency take advantage of the opportunity to see one more patient, to learn one more thing. You will never regret having that one extra experience and it might just be the thing you encounter someday when you are alone making a decision.
- Learn as much as you can from subspecialists. Especially learn to manage common things. Zebras are fun, but you need to know how to manage reflux, constipation, and allergic rhinitis for example. You don't want to have to refer someone three hours away for something you can manage.
- Attend as many deliveries as possible. You won't be able to call the "Code Pink Team," as you ARE the Code Pink Team. Spend more time in the emergency room. Spend time at level 1 traumas.
- Trust yourself. You have a good education. You have seen a large volume of patients with varied pathologies. You know the right thing to do. You don't have to do what other providers in the community may be doing if you know it's not best practice.⁷

We solicited the recent graduates for advice for the residency program and they stated they felt

the education they received prepared them well for clinical practice. However, I think the answer to what we could do better lies in the advice they had for residents. Our job as residency educators is to facilitate those things they mentioned. Our facility delivers 2600 babies per year and has a level III NICU, therefore there is no reason a pediatric resident should graduate without being comfortable attending a delivery. Likewise, being a Level I Trauma center should allow us plenty of opportunities to make sure resident graduates are comfortable with the initial stabilization of traumas.

Residency education has continued to evolve over the years with two of the major changes being decreased work hours and initiation of electronic health records (EHR). While few would advocate for return to previous work hours, residents in prior times did gain a wealth of experience working often independently in various emergency situations. We must be intentional and ensure our residents are competent with a wide variety of emergencies and procedures. Training in an institution with multiple skilled clinicians makes it possible for resident physicians to be sometimes on the sidelines completing the EHR while others address the clinical situation. We must be vigilant to assure our future rural physicians are confident and competent when they are in a situation without skilled support staff.

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