

**Online Supplemental Material for Barrett et al, The Impact of Rural Training Experiences on Medical Students: A Critical Review. *Academic Medicine*. 2011; 86:xxx-xxx.**

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**References for Supplemental Table 1, Studies Included in a 2009 Literature Review and Analysis of the Effects of Rural Training Experiences on Medical Students**

1. Amundson H, Hancock BW. The Rural Family Medicine Clerkship (RFMC) at the University of South Dakota School of Medicine: a six year review 1977-1982. *USD Med*. 1983;Sept:5.
2. Barnett SE, Orleans M, Larson L. Rural practitioners: a new community student health program. *Rocky Mt Med J*. 1978;75:151-155.
3. Bartline KB. Medical student and resident experience in Alaska: a question of value. *HIS Prim Care Provid*. 1997;Feb:23-25.
4. Bass RL, Paulman PM. The rural preceptorship as a factor in the residency selection: the Nebraska experience. *J Fam Pract*. 1983;17:716-719.
5. Bennard B, Wilson JL, Ferguson KP, Sliger C. A student-run outreach clinic for rural communities in Appalachia. *Acad Med*. 2004;79:666-671.  
[http://journals.lww.com/academicmedicine/Fulltext/2004/07000/A\\_Student\\_Run\\_Outreach\\_Clinic\\_for\\_Rural.10.aspx](http://journals.lww.com/academicmedicine/Fulltext/2004/07000/A_Student_Run_Outreach_Clinic_for_Rural.10.aspx). Accessed October 19, 2010.
6. Bianchi F, Stobbe K, Eva K. Comparing academic performance of medical students in distributed learning sites: the McMaster experience. *Med Teacher*. 2008;30:67-71.
7. Blue AV, Chessman AW, Geesey ME, Garr DR, Kern DH, White AW. Medical students' perceptions of rural practice following a rural clerkship. *Fam Med*. 2004;36:336-340.
8. Boulger JG. Family medicine education and rural health: a response to present and future needs. *J Rur Health*. 1991;7:105-115.
9. Brazeau NK, Potts MJ, Hickner JM. The Upper Peninsula Program: a successful model for increasing primary care physicians in rural areas. *Fam Med*. 1990;22:350-355.
10. Brown SR, Birnbaum B. Student and resident education and rural practice in the Southwest Indian health service: a physician survey. *Fam Med*. 2005;37:701-705.

11. Chaulk CP, Bass RL, Paulman MD. Physicians' assessments of a rural preceptorship and its influence on career choice and practice site. *J Med Educ.* 1987;62:349-351.
12. Davidson RA. Community-based education and problem solving: the community health scholars program at the University of Florida. *Teach Learn Med.* 2002;14:178-181.
13. Easterbrook M, Godwin M, Wilson R, et al. Rural background and clinical rural rotations during medical training: effect on practice location. *CMAJ.* 1999;160:1159-1163.
14. Ebbesson SO. The Alaska WAMI program: a preliminary study of factors affecting specialty choice and practice location. *Alaska Med.* 1988;30:55-60.
15. Fields SA, Toffler WL, Bledsoe NM. Impact of the presence of a third-year medical student on gross charges and patient volumes in 22 rural community practices. *Acad Med.* 1994;69(10 suppl):S87-S89.  
[http://journals.lww.com/academicmedicine/Abstract/1994/10000/Impact\\_of\\_the\\_presence\\_of\\_a\\_third\\_year\\_medical.52.aspx](http://journals.lww.com/academicmedicine/Abstract/1994/10000/Impact_of_the_presence_of_a_third_year_medical.52.aspx). Accessed October 19, 2010.
16. Fryer GE Jr, Miyoshi TJ, Stine C, Krugman RD. Colorado's decentralized medical education to increase the number of graduates practicing primary care in rural areas. *Acad Med.* 1993;68:301-311.  
[http://journals.lww.com/academicmedicine/Abstract/1993/04000/Colorado\\_s\\_decentralized\\_medical\\_education\\_to.23.aspx](http://journals.lww.com/academicmedicine/Abstract/1993/04000/Colorado_s_decentralized_medical_education_to.23.aspx). Accessed October 19, 2010.
17. Fryer GE, Stine C, Krugman RD, Miyoshi TJ. Geographic benefit from decentralized medical education: student and preceptor practice patterns. *J Rural Health.* 1994;10:193-198.
18. Glasser M, Hunsaker M, Sweet K, MacDowell M, Meurer M. A comprehensive medical education program response to rural primary care needs. *Acad Med.* 2008;83:952-961.  
[http://journals.lww.com/academicmedicine/Fulltext/2008/10000/A\\_Comprehensive\\_Medical\\_Education\\_Program\\_Response.15.aspx](http://journals.lww.com/academicmedicine/Fulltext/2008/10000/A_Comprehensive_Medical_Education_Program_Response.15.aspx). Accessed October 19, 2010.
19. Halaas GW, Zink T, Finstad D, Bolin K, Center B. Recruitment and retention of rural physicians: outcomes from the rural physician associate program of Minnesota. *J Rural Health.* 2008;24:345-352.
20. Hamilton CB, Smith A, Butters JM. Interdisciplinary student health teams: combining medical education and service in a rural community-based experience. *J Rural Health.* 1997;13:320-328.

21. Harris DL, Bluhm HP. An Evaluation of primary care preceptorships. *J Fam Pract* 1977;5:577-579.
22. Harris DL, Ebbert PJ. Effects of clinical preceptorship on career and practice site choices. *West J Med*. 1983;138:276-279.
23. Holve S. Recruiting physicians: a look at student and resident rotations. *IHS Prim Care Provid*. 1994;19:106-107.
24. Hooper EY. Utilization of medical students and residents: results of a survey of Indian Health Program facilities. *IHS Prim Care Provid*. 1994;19:108-110.
25. Hunsaker ML, Glasser ML, Neilsen KM, Lipsky MS. Medical students' assessments of skill development in rural primary care clinics. *Rural Remote Health*. 2006;6:616-627.
26. Irigoyen MM, Kurth RJ, Schmidt HJ. Learning primary care in medical school: does specialty or geographic location of the teaching site make a difference? *Am J Med*. 1999;106:561-564.
27. Jones AR, Oster RA, Pederson LL, Davis MK, Blumenthal DS. Influence of a rural primary care clerkship on medical students' intentions to practice in a rural community. *J Rural Health*. 2000;16:155-161.
28. Kaufman A, Klepper D, Obenshain S, et al. Undergraduate medical education for primary care: a case study in New Mexico. *South Med J*. 1982;75:1110-1117.
29. Kaufman A, Mennin S, Waterman R, et al. The New Mexico experiment: educational innovation and institutional change. *Acad Med*. 1989;64:285-294.  
[http://journals.lww.com/academicmedicine/Abstract/1989/06000/The\\_New\\_Mexico\\_experiment\\_educational\\_innovation.1.aspx](http://journals.lww.com/academicmedicine/Abstract/1989/06000/The_New_Mexico_experiment_educational_innovation.1.aspx). Accessed October 19, 2010.
30. Lacy NL, Paulman PM, Hartman TL. The effect of preceptorship rurality on students' self-perceived clinical competency. *Fam Med*. 2005;37:404-409.
31. Lang F, Ferguson KP, Bennard B, Zahorik P, Sliger C. The Appalachian Preceptorship: over two decades of an integrated clinical-classroom experience of rural medicine and Appalachian culture. *Acad Med*. 2005;80:717-723.  
[http://journals.lww.com/academicmedicine/Fulltext/2005/08000/The\\_Appalachian\\_Preceptorship\\_Over\\_Two\\_Decades\\_of.2.aspx](http://journals.lww.com/academicmedicine/Fulltext/2005/08000/The_Appalachian_Preceptorship_Over_Two_Decades_of.2.aspx). Accessed October 19, 2010.
32. Leeper J, Hullett S, Wang L. Rural Alabama health professional training consortium: six-year evaluation results. *Fam Comm Health*. 2001;24:18-26.

33. Levy BT, Merchant ML. Factors associated with higher clinical skills experience of medical students on a family medicine preceptorship. *Fam Med*. 2005;37:332-340.
34. Londo RA, Glasser M. Community-oriented primary care: an early report on a promising innovation. *Educ for Health*. 1999;12:299-307.
35. Londo RA, Glasser M. Perspectives on longer community-based preceptorships. *Fam Med*. 1999;31:13-14.
36. Lynch DC, Teplin SE, Willis SE, et al. Interim evaluation of the rural health scholars program. *Teach Learn Med*. 2001;13:36-
37. Lynch DC, Willis SE. Can a 3-day preceptorship change first-year medical students' opinions about living and working in small towns? *Fam Med*. 2000;32:495-500.
38. Martin LF, Richardson JD, Bell RA, Polk HC Jr. The initial impact of a surgical AHES program on medical students' career decisions. *J Med Educ*. 1981;56:812-817.
39. Norris TE, House P, Schaad D, Mas J, Kelday JM. Student providers aspiring to rural and underserved experiences at the University of Washington: promoting team practice among the health care professions. *Acad Med*. 2003;78:1211-1216.  
[http://journals.lww.com/academicmedicine/Fulltext/2003/12000/Student\\_Providers\\_Aspiring\\_to\\_Rural\\_and.3.aspx](http://journals.lww.com/academicmedicine/Fulltext/2003/12000/Student_Providers_Aspiring_to_Rural_and.3.aspx). Accessed October 19, 2010.
40. Pathman DE, Konrad TR, Ricketts TC III. Medical education and the retention of rural physicians. *HSR: Health Serv Res*. 1994;29:39-58.
41. Pathman DE, Steiner BD, Jones BD, Konrad TR. Preparing and retaining rural physicians through medical education. *Acad Med*. 1999;74:810-820.  
[http://journals.lww.com/academicmedicine/Abstract/1999/07000/Preparing\\_and\\_retaining\\_rural\\_physicians\\_through.16.aspx](http://journals.lww.com/academicmedicine/Abstract/1999/07000/Preparing_and_retaining_rural_physicians_through.16.aspx). Accessed October 19, 2010.
42. Paulman PM, Davidson-Stroh L. The effect of rural family practice preceptorship on medical students' residency selection. *Fam Pract Res J*. 1993;13:385-389.
43. Phillips TJ, Swanson AG. Teaching family medicine in rural clinical clerkships. *JAMA*. 1974;228:1408-1410.
44. Phillips TJ, Swanson AG, Wiegert T. Community clinical clerkships for educating family medicine students: process of development (A WAMI progress report). *J Fam Pract*. 1974;1:23-27.

45. Phillips WR, Rosenblatt RA, Gordon MJ, Fletcher RM. Clinical content of the WAMI community clerkship in family medicine. *J Med Educ.* 1982;57:615-620.
46. Potts M. Rural community health agencies as primary care clerkship sites for medical students. *Fam Med.* 1994;26:632-637.
47. Power DV, Harris IB, Swentko W, Halaas GW, Benson BJ. Comparing rural-trained medical students with their peers: performance in a primary care OSCE. *Teach Learn Med.* 2006;18:196-202.
48. Rabinowitz HK, Diamond JJ, Markham FW, Wortman, JR. Medical school programs to increase the rural physician supply: a systematic review and projected impact of widespread replication. *Acad Med.* 2008;83:235-243.  
[http://journals.lww.com/academicmedicine/Fulltext/2008/03000/Medical\\_School\\_Programs\\_to\\_Increase\\_the\\_Rural.5.aspx](http://journals.lww.com/academicmedicine/Fulltext/2008/03000/Medical_School_Programs_to_Increase_the_Rural.5.aspx). Accessed October 19, 2010.
49. Rabinowitz HK, Diamond JJ, Markham FW, Rabinowitz C. Long-term retention of graduates from a program to increase the supply of rural family physicians. *Acad Med.* 2005;80:728-732.  
[http://journals.lww.com/academicmedicine/Fulltext/2005/08000/Long\\_Term\\_Retention\\_of\\_Graduates\\_from\\_a\\_Program\\_to.4.aspx](http://journals.lww.com/academicmedicine/Fulltext/2005/08000/Long_Term_Retention_of_Graduates_from_a_Program_to.4.aspx). Accessed October 19, 2010.
50. Rabinowitz HK, Diamond JJ, Markham FW, Paynter NP. Critical factors for designing programs to increase the supply and retention of rural primary care physicians. *JAMA.* 2001;286:1041-1048.
51. Rabinowitz HK, Diamond JJ, Hojat M, Hazelwood CE. Demographic, educational and economic factors related to recruitment and retention of physicians in rural Pennsylvania. *J Rural Health.* 1999;15:212-218.
52. Rabinowitz HK, Diamond JJ, Markham FW, Hazelwood CE. A program to increase the number of family physicians in rural and underserved areas: impact after 22 years. *JAMA.* 1999;281:255-260.
53. Rabinowitz HK. Recruitment, retention, and follow-up of graduates of a program to increase the number of family physicians in rural and underserved areas. *N Eng J Med.* 1993;328:934-939.
54. Rabinowitz HK. A Program to recruit and educate medical students to practice family medicine in underserved areas. *JAMA.* 1983;249:1038-1041.

55. Riley K, Myers W, Gordon MJ, Laskowski M, Kriebel S, Dobie S. A collaborative approach to a primary care preclinical preceptorship for underserved settings. *Acad Med.* 1991;66:776-777.  
[http://journals.lww.com/academicmedicine/Abstract/1991/12000/A\\_collaborative\\_approach\\_to\\_a\\_primary\\_care.15.aspx](http://journals.lww.com/academicmedicine/Abstract/1991/12000/A_collaborative_approach_to_a_primary_care.15.aspx). Accessed October 19, 2010.
56. Rourke JTB, Incitti F, Rourke LL, Kennard MA. Relationship between practice location of Ontario family physicians and their rural background or amount of rural medical education experience. *Can J Rural Med.* 2005;10:231-239.
57. Schauer RW, Schieve D. Performance of medical students in a nontraditional rural clinical program, 1998-99 through 2003-04. *Acad Med.* 2006;81:603-607.  
[http://journals.lww.com/academicmedicine/Fulltext/2006/07000/Performance\\_of\\_Medical\\_Students\\_in\\_a.3.aspx](http://journals.lww.com/academicmedicine/Fulltext/2006/07000/Performance_of_Medical_Students_in_a.3.aspx). Accessed October 19, 2010.
58. Shannon CK, Baker H, Jackson J, Roy A, Heady H, Gunel E. Evaluation of a required statewide interdisciplinary rural health education program: student attitudes, career intents and perceived quality. *Rural Remote Health.* 2005;5:405-412.
59. Smucny J, Beatty P, Grant W, Dennison T. An evaluation of the rural medical education program of the State University of New York Upstate Medical University, 1990-2003. *Acad Med.* 2005;80:733-738.  
[http://journals.lww.com/academicmedicine/Fulltext/2005/08000/An\\_Evaluation\\_of\\_the\\_Rural\\_Medical\\_Education.6.aspx](http://journals.lww.com/academicmedicine/Fulltext/2005/08000/An_Evaluation_of_the_Rural_Medical_Education.6.aspx). Accessed October 19, 2010.
60. Stearns JA, Stearns MA, Glasser M, Londo RA. Illinois RMED: a comprehensive program to improve the supply of rural family physicians. *Fam Med.* 2000;32:17-21.
61. Steinwald B, Steinwald C. The effect of preceptorship and rural training programs on physicians' practice location decisions. *Med Care.* 1975;13:219-229.
62. Verby J, Lenarz G, Garrard J. Evaluation of an alternative clinical experience: the Minnesota rural physician associate program. *J Med Educ.* 1974;49:696-698.
63. Verby JE. The Minnesota rural physician associate program for medical students. *J Med Educ.* 1988;63:427-437.
64. Verby JE. Physician redistribution in Minnesota and the 84,000 mile classroom. *Minn Med.* 1985;68:757-758.

65. Verby JE, Newell JP, Andresen SA, Swentko WM. Changing the medical school curriculum to improve patient access to primary care. *JAMA*. 1991;266:110-113.
66. Verby JE, Schaefer MT, Voeks RS. Learning forestry out of the lumberyard. *JAMA*. 1981;246:645-647.
67. Verby JE, Schaefer MT, Voeks RS. The Impact of a long-term preceptorship on clinical confidence of senior medical students. *Minn Med*. 1982;65:297-300.
68. Wigton R, Steinmann WC. Plans for rural practice of medical students and residents at the University of Nebraska College of Medicine. *Nebraska Med J*. 1981;66:77-80.
69. Woloschuk W, Tarrant M. Does a rural educational experience influence students' likelihood of rural practice? Impact of student background and gender. *Med Educ*. 2002;36:241-247.
70. Xu G, Veloski J, Hojat M, Politzer RM, Rabinowitz HK, Rattner SL. Factors influencing primary care physicians' choice to practice in medically underserved areas. *Acad Med*. 1997;72(10 suppl.):S109-S111.  
[http://journals.lww.com/academicmedicine/Abstract/1997/10000/Factors\\_influencing\\_primary\\_care\\_physicians\\_.60.aspx](http://journals.lww.com/academicmedicine/Abstract/1997/10000/Factors_influencing_primary_care_physicians_.60.aspx). Accessed October 19, 2010.
71. Zink T, Halaas GW, Finstad D, Brooks KD. The Rural physician associate program: the value of immersion learning for third-year medical students. *J Rural Health*. 2008;24:353-359.
72. Zorzi A, Rourke J, Kennard M, Peterson ME, Miller KJ. Combined research and clinical learning make rural summer studentship program a successful model. *Educ Health*. 2005;18:329-337.