

# Achievement of Millennium Development Goal 4 in Low and Lower-Middle Income Countries: A Scoping Review

Danyelle Barnes, SPT, Jennifer Pike, SPT, Rebecca Todd, SPT,  
 Michel D. Landry, BScPT, PhD

## Background

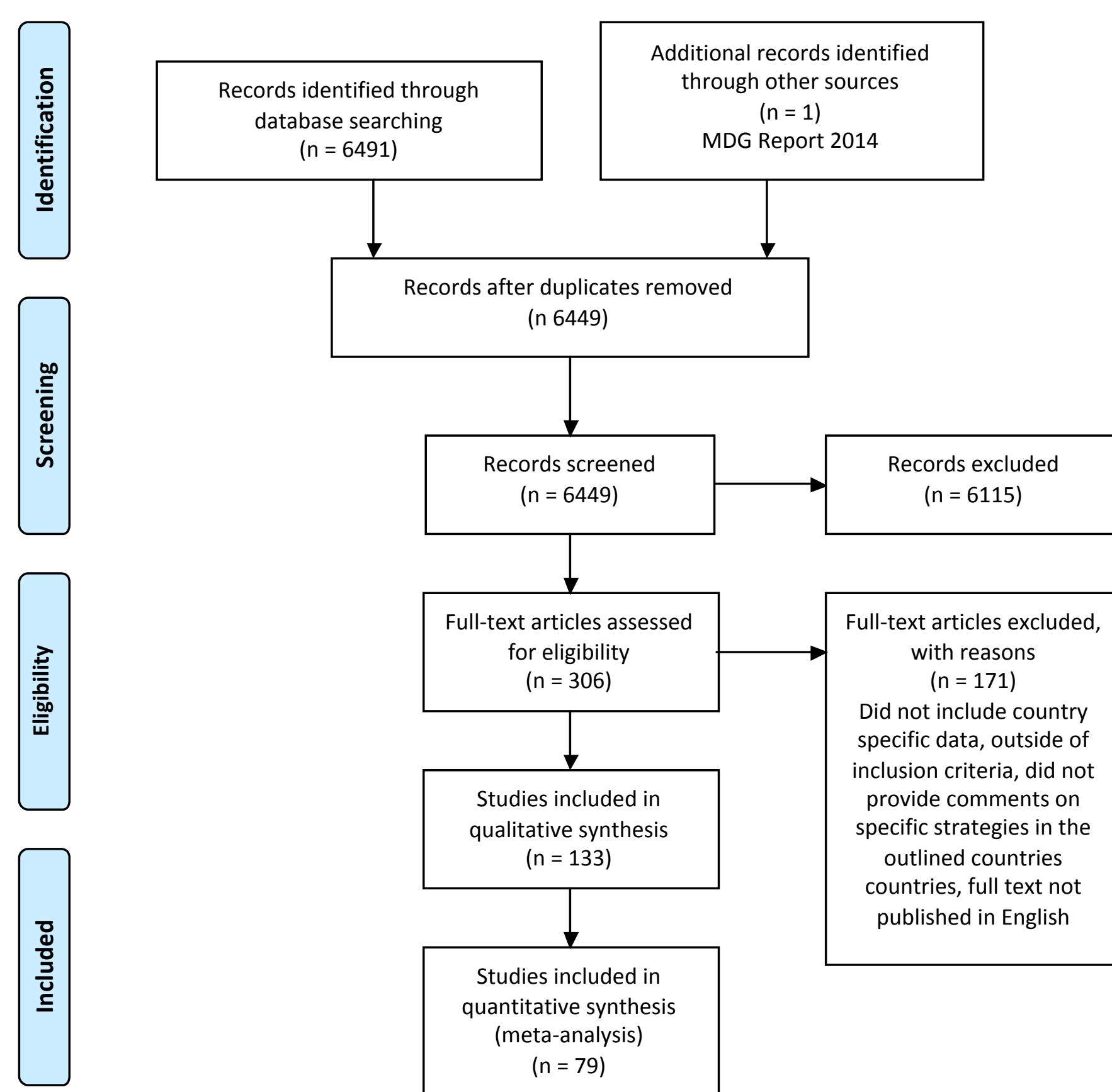
The Millennium Development Goals (MDGs):

- Eight international goals targeting the world's major health concerns
- United Nations world leaders came together in 2000 committing to global partnership and efforts to achieve targeted changes (UN)
- Goals are scheduled to be completed in September 2015
- MDG 4 looks specifically at reducing global under-five child mortality rates (U5MR) by two-thirds from 1990 to 2015

## Purpose

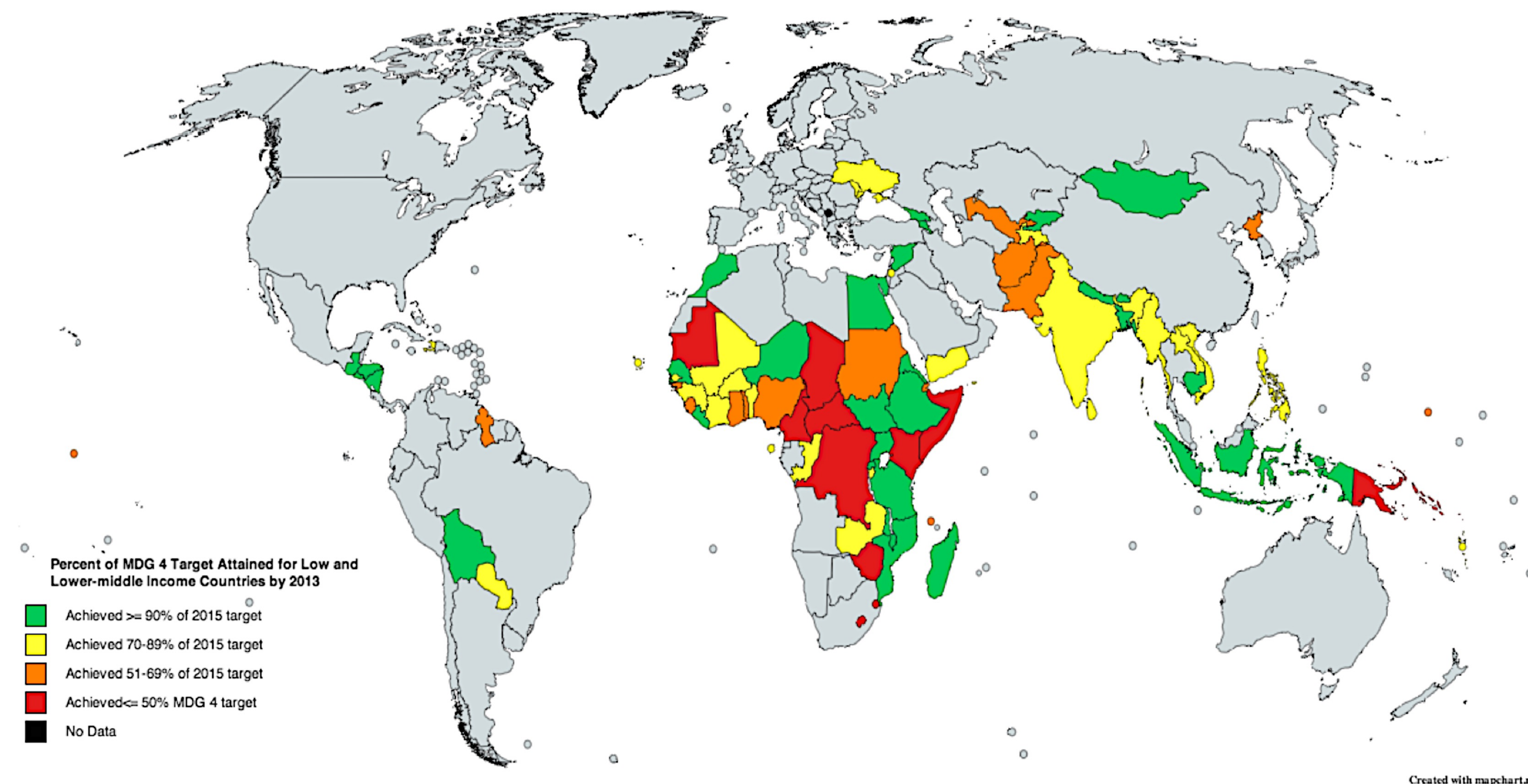
- The purpose of this study was to undertake a scoping review of the available literature on MDG 4 for reducing childhood mortality.
- We were predominantly concerned with to what extent the 83 low and low-middle-income countries were able to reach this goal
- This project serves as a central collection of how developing countries are making progress on MDG 4 outlined by the UN.

## Methods



From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(6): e1000097. doi:10.1371/journal.pmed1000097

## Results



**MDG 4 Progress 1990-2013:**  
**Low Income Countries**

Country	1990 (Per 1,000)	2013 (per 1,000)	Percent Change	2015 Target	Percent of Target Met
Afghanistan	179	97	46%	60.9	69%
Bangladesh	144	41	72%	49	108%
Benin	179	85	53%	60.9	80%
Burkina Faso	202	98	51%	68.7	78%
Burundi	171	83	51%	58.1	78%
Cambodia	118	38	68%	40.1	103%
Central African Republic	177	139	21%	60.2	33%
Chad	215	148	31%	73.1	47%
Comoros	125	78	38%	42.5	57%
Congo, Democratic Republic of	176	119	32%	59.8	49%
Eritrea	151	50	67%	51.3	101%
Ethiopia	205	64	69%	69.7	104%
Gambia, The	170	74	56%	57.8	86%
Guinea	238	101	58%	80.9	87%
Guinea-Bissau	225	124	45%	76.5	68%
Haiti	145	73	50%	49.3	75%
Kenya	99	71	28%	33.7	43%
Korea, DPR	43	27	37%	14.6	56%
Liberia	248	71	71%	84.3	108%
Madagascar	161	56	65%	54.7	99%
Malawi	245	68	72%	83.3	109%
Mali	254	123	52%	86.4	78%
Mozambique	237	87	63%	80.6	96%
Myanmar	109	51	53%	37.1	81%
Nepal	142	40	72%	48.3	109%
Niger	327	104	68%	111.2	103%
Rwanda	152	52	66%	51.7	99.70%
Sierra Leone	268	161	40%	91.1	60%
Somalia	180	146	19%	61.2	29%
Tajikistan	108	48	56%	39.8	84%
Tanzania	167	52	69%	56.8	104%
Togo	146	85	42%	49.6	63%
Uganda	179	66	63%	60.9	96%
Zimbabwe	75	89	-19%	25.5	-28%

**MDG 4 Progress 1990-2013:**  
**Lower-Middle Income Countries**

Country	1990 (Per 1,000)	2013 (per 1,000)	Percent Change	2015 Target	Percent of Target Met
Armenia	50	16	68%	17	103%
Bhutan	134	36	73%	45.6	110%
Bolivia	123	39	68%	41.8	103%
Cabo (Cape) Verde	63	26	59%	21.4	89%
Cameroon	136	95	30%	46.2	46%
Congo, Republic of	92	49	47%	31.3	71%
Cote d'Ivoire	152	100	34%	51.9	52%
Djibouti	119	70	41%	40.5	62%
Egypt, Arab Republic	85	22	74%	28.9	112%
El Salvador	60	16	73%	20.4	111%
Georgia	47	13	72%	16	110%
Ghana	128	73	43%	43.5	59%
Guatemala	81	31	62%	27.5	94%
Guyana	61	37	39%	20.7	60%
Honduras	59	22	63%	20.1	95%
India	126	53	58%	42.8	88%
Indonesia	84	29	65%	28.6	99%
Kiribati	95	58	39%	32.3	59%
Kyrgyzstan Republic	66	24	64%	22.4	94%
Lao PDR/Laos	162	71	56%	55.1	85%
Lesotho	86	98	-14%	29.2	-19%
Mauritania	118	90	24%	40.1	36%
Micronesia, Federated States of	55	36	35%	18.7	52%
Moldova	32	15	53%	10.9	80%
Mongolia	108	32	70%	36.7	107%
Morocco	81	30	63%	27.5	95%
Nicaragua	67	24	64%	22.8	97%
Nigeria	213	117	45%	72.4	68%
Pakistan	139	86	38%	47.3	58%
Papua New Guinea	89	61	31%	30.3	48%
Paraguay	46	22	52%	15.6	79%
Philippines	59	30	49%	20.1	74%
Samoa	31	18	42%	10.5	64%
Sao Tome and Principe	110	51	54%	37.4	81%
Senegal	141	55	61%	47.9	92%
Solomon Islands	39	30	23%	13.4	35%
Sri Lanka	21	10	52%	7.1	79%
Sudan	128	77	40%	43.5	60%
South Sudan	253	99	61%	86	92%
Swaziland	74	80	-8%	25.2	-12%
Syrian Arab Republic	37	15	59%	12.6	90%
Timore-Leste (East Timor)	172	55	68%	58.9	103%
Ukraine	20	10	50%	6.8	76%
Uzbekistan	71	43	39%	24.1	60%
Vanuatu	33	17	48%	11.2	73%
Vietnam	51	24	53%	17.3	80%
West Bank and Gaza	43	22	49%	14.6	74%
Yemen, Republic of	125	51	59%	42.5	89.70%
Zambia	193	87	55%	65.6	83%

As demonstrated by the 2013 data from The World Bank:

- **30 countries** have met or are on track for meeting MDG 4
- **12 countries** are 50% or less from reaching MDG 4

## Conclusions

- Common themes of success towards meeting MDG 4 include:
  1. Government initiative & new policy making
  2. Greater access to care for mothers & children
  3. Improved quality of care
  4. Utilization of available care
- These numbers demonstrate the continued need for intervention in low and lower-middle countries.
- As 2015 comes to a close, further analysis of MDG achievement will be needed for studies assessing 2015 data.
- Our findings highlight the need to revise the MDGs for the post-2015 era, and answer the question: "What's next?"
- It is important to note the difficulty with collecting and tracking data for U5MR in developing countries.

## Future Discussions

- Currently, the UN is conducting several sessions on developing the post-MDG agenda: The Sustainable Development Goals (SDG).
- These new goals attempt to answer the lingering questions left by the 25 year history of the MDGs.
- The SDG's are also attempting to answer new questions that have emerged along the way.
- Physical Therapy should be integrated into the new goals to address the issue of disability worldwide.

## References

1. Mortality rate, under-5 (per 1,000 live births) | Data | Table. (n.d.). Retrieved May 19, 2015, from <http://data.worldbank.org/indicator/SH.DY.NL.MORT>