



VACCINATIONS AND ROUTINE GROWTH AND DEVELOPMENT VISITS IN CHILD HEALTH CARE IN PERU: OPPORTUNITIES FOR PIGGYBACKING DEWORMING AND ACHIEVING THE MDGs



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BACKGROUND - DEWORMING:

- Mass deworming of children **as of 12 months of age** recommended in endemic areas by WHO, World Bank, UNICEF...
 - Known **benefits** (improved nutritional status, cognition...); helps to achieve the **Millennium Development Goals**
 - Known **safety** (negligible occurrence and severity of side effects)
- School-age children targeted in **school-based programs**; free drug donations available
- Coverage in **preschool-age children** remains low (~ 30% globally in 2012)
 - cost-effective, integrated solutions needed to increase **coverage**
 - WHO recommends **piggybacking** deworming onto existing child health care interventions in preschool-age children



BACKGROUND - EARLY CHILDHOOD HEALTH INTERVENTIONS IN PERU:

- **Growth and Development** clinics ("Crecimiento y Desarrollo" or CRED) at health centres or health posts
 - < 1 month: 2 visits 1 to 11 months: 11 visits 12 to 23 months: 6 visits 24 to 59 months: 12 visits
- Interventions according to MoH - nutrition counselling, growth and development monitoring, vaccines, supplementations
- **Vaccines** BCG and Hep B – Newborn Polio, Pentavalent and Rotavirus – 2, 4, and 6 months
 - Pneumococcal – 2, 4 and 12 months Measles, mumps and rubella (MMR) – 12 months

OBJECTIVE: To describe baseline vaccination and growth and development coverage in early preschool-age children

METHODS: Baseline data from a deworming trial in Peru

Study location → Iquitos - Highly parasite-endemic area in the Peruvian Amazon

Study population → Children age 12 to 13 months at baseline
→ Attendance at routine 12-month CRED visit
→ Previous attendance not required

Socio-demo-epi outcomes → Questionnaire administered to mothers at baseline
→ Information on previous CRED attendance, vaccinations to date (verification from medical records)



RESULTS:

1760 CHILDREN ENROLLED BETWEEN SEPTEMBER 2011 – JUNE 2012

- Mean number of CRED visits before enrolment : 7.6 (SD ± 3.5) (range 0 to 13)
- No previous CRED visits : 3.6%
- MMR vaccine : **78.4%** → 34.6% received prior to baseline visit; 43.8% appointment scheduled
- Other vaccines completed according to schedule → BCG – **94.8%** → Hep B – **87.0%**
 - Polio – **91.6%** → Pentavalent vaccine – **91.3%** → Rotavirus – **85.5%**
 - Pneumococcal – **36.1%** - 3 doses; **58.4%** - 2 doses

PERU Ministerio de Salud		CARNÉ DE ATENCIÓN INTEGRAL DE SALUD DE LA NIÑA	
N° HC:	N° Carpeta FAM:		
Cod. de Afiliación:	CUI/DNI:		
Fecha de Nacimiento:			
Nombres y Apellidos:			
- De la Niña:	DNI:		
- De la Madre:	DNI:		
- Del Padre:	DNI:		
Dirección:	Teléfono:		
E-mail:			
Establecimiento:			
Programa de Apoyo Social:			
VACUNACIÓN (Anotar Fechas):			
Tuberculosis (BCG):	(Recién Nacido)		
Antihpatitis (HvB):	(Recién Nacido)		

CONCLUSIONS:

- Among study participants - high attendance at CRED visits and high coverage of vaccines scheduled previous to 12 months
- Lower vaccination coverage (~ 1/3) for 12-month vaccines (MMR, Pneumococcal)
- Both community and health-centre based interventions should try to reach children as close to 12 months of age as possible (earliest time at which deworming can be given)

FUTURE RESEARCH: Data collection for the RCT on benefits of deworming (timing and frequency) on growth and development in children 12 to 24 months of age was completed in August 2013 (NCT01314937). Follow-up data are now being analyzed.
→ associations between baseline characteristics of health interventions and outcomes at 18 and 24 months will be explored.