

Adolescent Health programme and its contribution to the success of vaccination

Country: Switzerland

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1) Childhood vaccination schedule:

Age	DTaP	IPV	HIB	Hep B	MMR	dT (see DTap)	Varicella	TBE If endemi c	(Meningoco ccal Disease) 2
2 months(1)	x	X	x						
3 months									
4 months	x	X	x						
6 months	x	x	x						
12-15 months					x				X 3
15-24 months	x	x	x		X 1				
4-7years	x	x						Starting at age six (3 doses)	
11-15	dTp			2 doses			(2 doses if neg. history)		x

[1: catch-up vaccination recommended any time

2: Vaccination against Meningococci Type C: additionally recommended for those wishing it. 3: catch-up till age 5years.

Additionally recommended Pneumococci: 2,4,12 months

Vaccination plan:
www.ekif.ch

2.1) How are the children/adolescents reached? School medicine system.

- No nationwide system. Each canton (state, n=26) has its own system.
- School Health Services are based on cantonal health and education law. Responsibility for organisation of services at level of community.
- 16/26 cantons (62%) offer Hep B vaccination in schools*.
- Proof of better vaccination rates, where school health services are available and offering vaccinations*.

2.2) How are the children/adolescents reached? Other channels

- Childhood: Vaccination mainly based on private sector. Most children are reached by pediatricians and general practitioners.
- Adolescence: private sector offers vaccination, many adolescents do not visit doctors for preventive visits.

3) Who are the vaccinators?

- Vaccinator is defined by local practice: doctor/ nurse, physician assistant.



4) Training of the vaccinators?

- Physicians
 - Undergraduate Level: Knowledge and skills in vaccinations defined as objective for training
 - Postgraduate level: in depth training defined e.g. in pediatric curriculum, GP-curriculum
 - CME: national meeting on vaccination 1x/2 years
- Nurse/ Physician assistant:
 - part of training,
 - In service training e.g. in school health service

5) Financing of child and adolescent vaccination

- All vaccines mentioned are nationwide covered by the health insurances.
- Part of the fee (10%) for consultation necessary for the vaccination has to be paid by patient.
- School Health Services usually offer vaccinations for free and either get globally reimbursed by health insurance or have to bill insurance for every patient.

6) Decisions on introduction of new vaccines

- A federal commission (www.ekif.ch) of experts decide on the vaccination schedule. Two levels of recommendations: “for all”, “additionally recommended”.
- Coverage by health insurances usually follow recommendations of commission. Sometimes no coverage for “additionally recommended” vaccines.
- School Health Services often need positive decision of Cantonal (State) Department of Health to put a vaccine on list of vaccines offered for School Health Care.

Challenges to introduce new/additional vaccines for adolescents (1)

- Recommendation by federal commission
- Coverage by health insurance
- Decision of State Health Department to put vaccine on list for School Health Services
- Convincing/educating vaccinators about necessity of immunization
- Reaching adolescent population, identifying opportunities for vaccination (e.g. gynecological consultation)

Challenges to introduce new/additional vaccines for adolescents (2)

- Parental acceptance of vaccination
- Fears regarding proven and unproven health effects of vaccines, supported by widely distributed publications of “anti-vaccination-experts”
- Lack of knowledge of providers about adolescent capacity to decide for vaccination

Challenges (3):

Minors right to decide for a vaccination:

- Request to the Federal Office of Health to clarify question of minor's right.
- Clear position: Minor with decisional capacity can request vaccination without parental consent.
- Decisional capacity for vaccination can be assumed by default at about age 15, before this age provider has to assess and document this capacity.

- Reality: Example City of Zürich: Based on state (cantonal) educational law, this right for minors is denied. Same in most School Health Services. Discussion ongoing.

7) Coverage data

- No nationwide population data regarding immunization rates
- Basis is established for a monitoring based on a national sample drawn all 3 years. Participation rate 2005: 80%.
- No published national data on vaccinators.

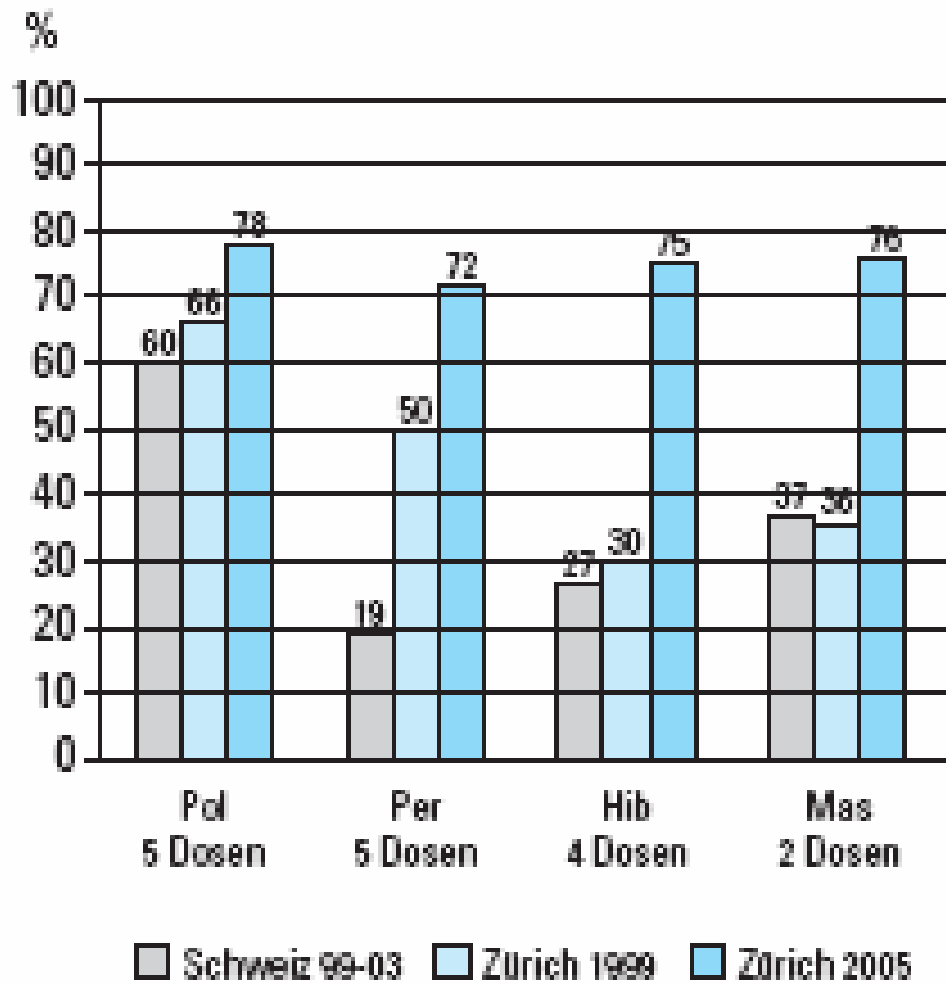
Tab. 1: Durchimpfung von Kleinkindern in Prozenten

Impfung	Dosen	Schweiz			Zürich	
		1991	1998	99 - 03	1999	2005
		n = 402	n = 403	n = 8729	n = 345	n = 454
Diphtherie (Di)	≥ 3	95	94	95	95	96
	≥ 4	71	72	84	83	83
Tetanus (Te)	≥ 3	93	93	96	96	96
	≥ 4	71	72	84	83	83
Poliomyelitis (Po)	≥ 3	93	93	96	96	96
	≥ 4	71	72	84	83	83
Pertussis (Per)	≥ 3	80	77	91	79	84
	≥ 4	—	47	79	79	82
Masern	≥ 1	83	81	82	81	87
Mumps	≥ 1	80	79	81	81	85
Röteln	≥ 1	80	79	81	81	85

Good coverage for preschool infants

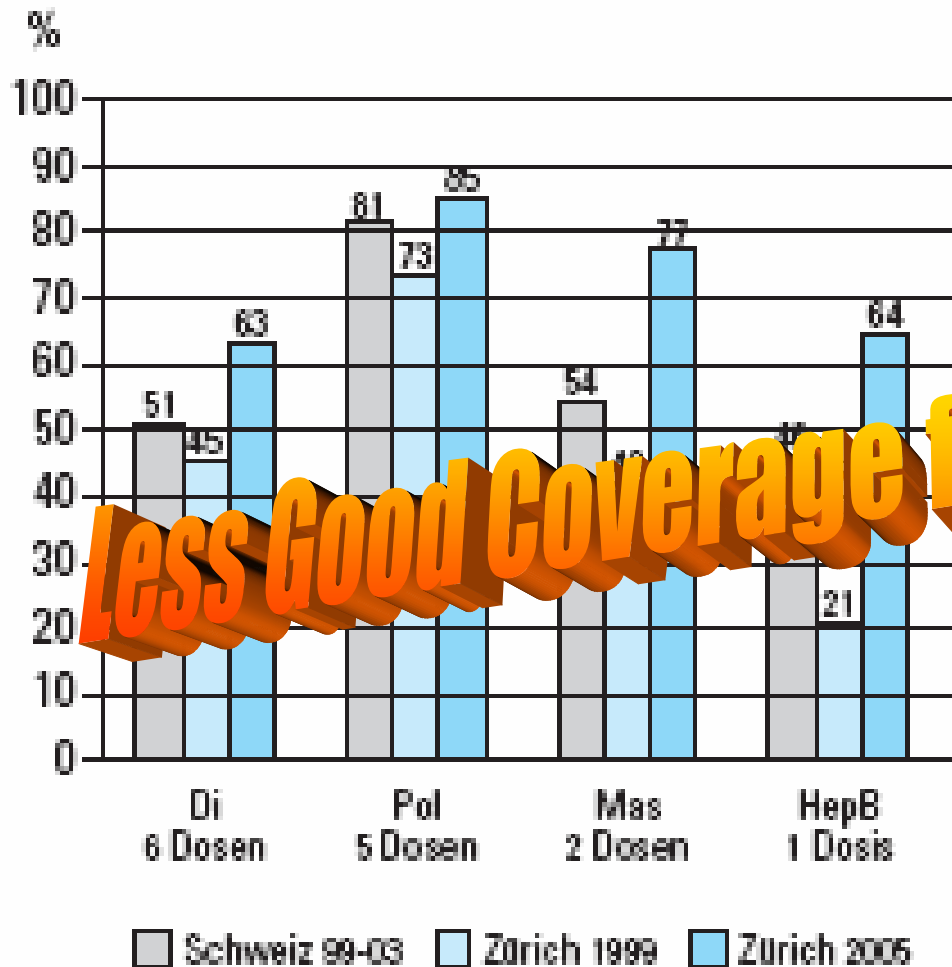
Vaccination Rate Children at age 3 years

Abb. 1: Durchimpfung von Schulkindern (Kindergarten, 1.-3. Klasse)



Vaccination Rates School-age Children 7-9 years

Abb. 2: Durchimpfung von Jugendlichen
(6.-9. Klasse)



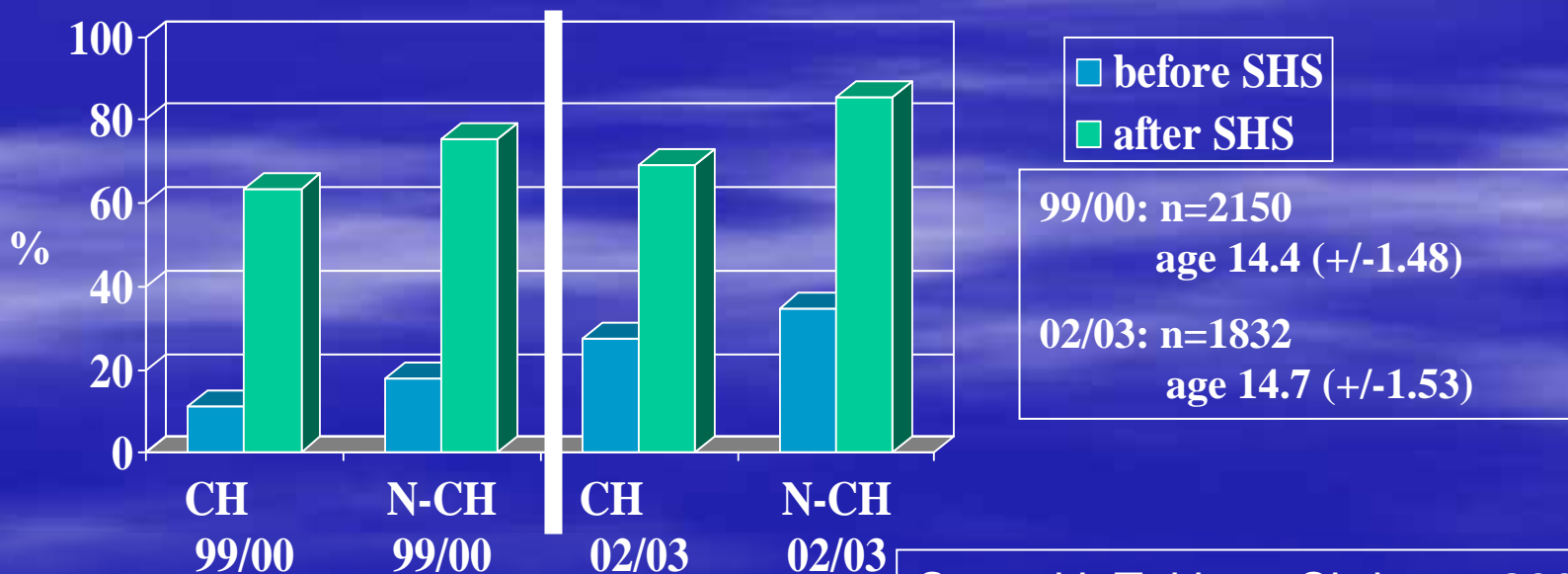
Less Good Coverage for adolescents

Vaccination Rate Youth (13-16 years)

Immunization Rates Hepatitis B, Zürich before and after intervention of School Health Service

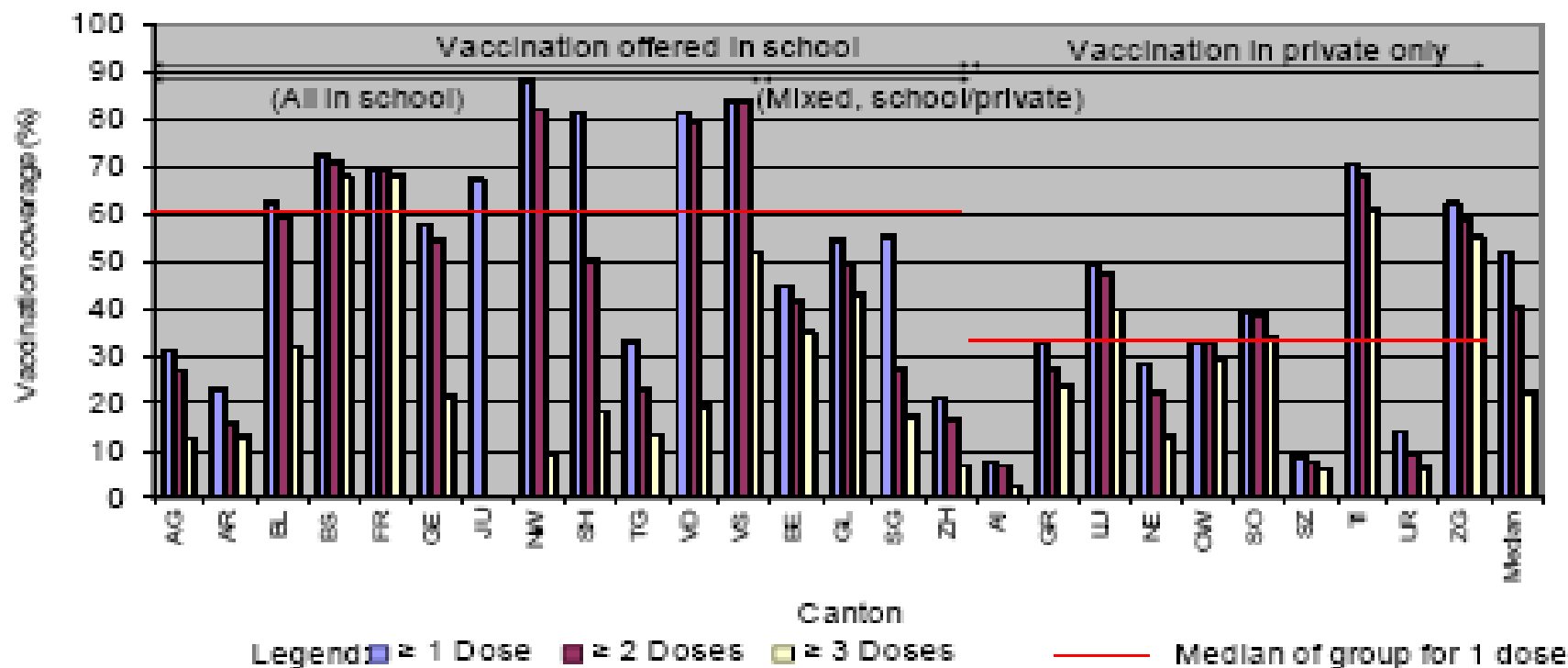
Swiss Citizens (CH) versus Non-Swiss Citizens (N-CH)

Percentage of Students with one or more
documented Hep.B. immunizations



2. Vaccination coverage

Hepatitis B vaccination coverage in adolescents by canton

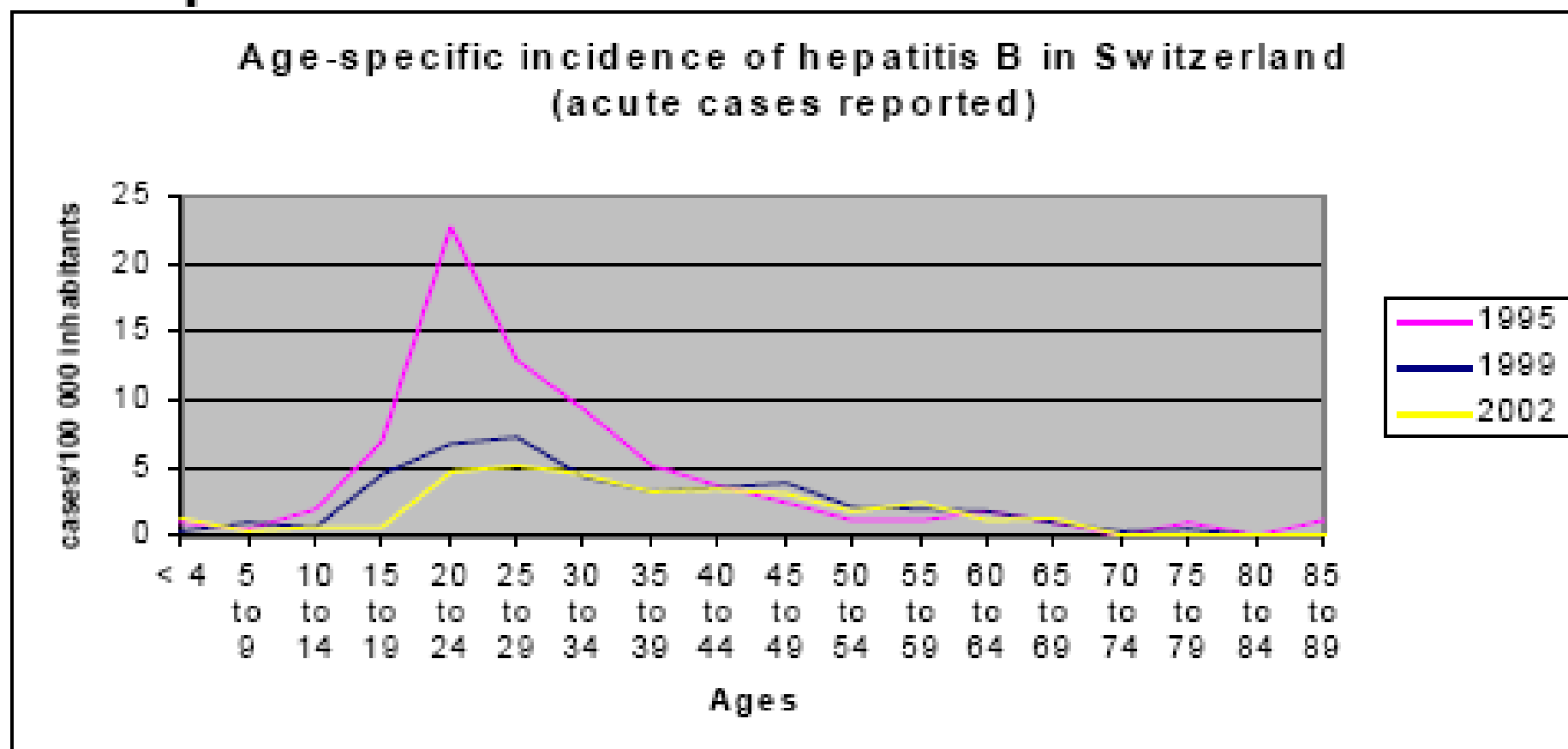


Median estimated adolescent vaccination coverage by canton (at least 1 dose) : 52% (range 7% to 88%).

Determinants (significant):

- non-swiss nationality: better vaccinated (OR 1.46)
- mother of higher education: less vaccinated (OR 0.72)

3. Hepatitis B incidence



Incidence of reported HB declined 84% in the age group 15-19 years from 1999 to 2002 (from 4.6 to 0.7/100,000); overall decline in the population (all ages) was 20% (from 2.8 to 2.3/100,000)

8) Strengths of the immunization programmes

- Private sector:
 - Well established private sector offers recommended preventive visits, scheduled according to vaccination plan.
 - While compliance is good for preventive visits in younger children, parents of school children often do not actively seek preventive care.
 - Private sector does not outreach.

8) Strengths of the immunization programmes

- School Health system
 - reaches good immunization rates at lower cost as private sector.
 - Possibility to use school lessons for information on vaccines as well as peer effects add to increase vaccination rate.

9) Challenges of the immunization programmes

- Private sector does not reach adequately the population of school children and even less adolescents.
- School Health Services
 - are not well established in many parts of the country,
 - not all of them are involved in vaccination.
 - Future of School Health Services hampered by change of legal framework increasingly transferring vaccinations to private sector.
 - Sometimes extended time to realize new vaccination or to react to new evidence (e.g. better vaccine with less side effects) due to slow administrative procedures.
 - Private sector arguments: Lack of continuity of care.

10) Conclusions

- While coverage of the cost of vaccinations by the health insurances and a well established private sector achieve good immunization rates in preschool children, there are still no sufficient immunization rates for school-age children and adolescents.
- School Health Services significantly improve these vaccination rates, however school health services are not established nationwide.