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Colorado. Board of Health.

A report of the Survey of Sanitary and
Health Conditions and Facilities in Eleven
State Institutions. 1944.

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I N T R O D U C T I O N

To the Honorable John C. Vivian, Governor of
Colorado and the General Interim Committee of the Thirty-Fourth
General Assembly of the State of Colorado.

The following is a report of the survey of sanitary
and health conditions and facilities in eleven state institutions,
conducted under the supervision of the State Board of Health.

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Table of Contents

Introduction

Foreword

Part I

Studies and observations including detailed recommendations for each institution.

Sanitation - - - - - Pages 1 - 15

Hospital and Medical Service - - - - - " 16 - 24

Dental - - - - - " 25 - 26

Nutrition - - - - - " 27 - 36

Part II

General Recommendations:

Sanitation - - - - - Pages 37 - 38

Hospital and Medical Service - - - - - " 39

Dental - - - - - " 40 - 41

Nutrition - - - - - " 42

FOREWORD

On July 5, 1944, the Honorable John C. Vivian, Governor of Colorado and the General Interim Committee, instructed the Colorado State Board of Health through its Secretary to inspect the sanitary conditions and "all matters usually included in a sanitary inspection, as an investigation of ventilation in dormitories, dining rooms and other group gathering rooms, an investigation of adequacy and nutritional value of food served upon typical days, and especially in institutions charged with the care of children, an investigation of conditions which may increase the hazard of contagion and infection." The following institutions were inspected:-

1. State Home for Dependent Children - 2305 So. Washington Street, Denver.
2. Home for Mental Defectives - Ridge.
3. Home for Mental Defectives - Grand Junction.
4. Girls' Industrial School, - Morrison
5. Boys' Industrial School - Golden.
6. State Reformatory - Buena Vista.
7. State Penitentiary - Canon City.
8. Colorado State Hospital - Pueblo.
9. Colorado School for the Deaf and Blind - Colorado Springs.
10. Industrial Workshop for the Blind - Denver.
11. Soldiers and Sailors Home - Homelake.

Inspections and observations were made by:-

Roy L. Cleere, M. D., M. P. H. - Secretary and Executive Officer, State Board of Health
Charles G. Grover, D. D. S. - President, State Board of Health.
Robert A. Downs, D. D. S., M. P. H. - Division, Maternal and Child Health.
Irving A. Fuller - Division, Plumbing.
James Doyle - Division, Sanitary Engineering.

Upon request the Colorado Nutrition Council assisted the State Board of Health by investigating the "quality, adequacy and nutritional value of food served on typical days," in the above institutions.

The personnel of the committee was as follows:-

Dr. Elizabeth Dyar - Chairman of the Survey Committee of the Colorado Nutrition Council, Professor of Home Economics, Colorado State College, Ft. Collins, Colorado.
Miss Clara A. Ridder - Executive Secretary, Colorado Nutrition Council.
Dr. Robert A. Downs - Chairman, Colorado Nutrition Council, Director of Dental Health, Colorado Division of Public Health.
Mrs. Hazel E. Combs - Director of Dormitories, Simmons College, (formerly dietitian, Rockwell, Colorado State College.)

Materials and data gathered have been compiled and arranged in outline form by Mildred East, Hospital Inspector for the Colorado State Board of Health.

Respectfully submitted,

R. L. Cleere, M. D.
Executive Secretary of Colorado State Board of Health

SANITATION

STATE INSTITUTIONS

(A) BUILDINGS	(1) GENERAL CON- DITION	(2) EQUIPMENT	(3) SPACE PER CAPITA	(4) VENTILATION	(5) LIGHT- ING	(6) SCREEN- ING	(7) TOILET & BATHING FACILITIES	(8) DRINKING FOUNTAINS
State Home for De- pendent Children	In need of minor repairs such as: 1. Painting 2. Plastering 3. Roofing Buildings are old but fairly well maintained	Old - but being maintained in satisfactory man- ner	Nursery (for small babies) needs to be enlarged or re- built. No over- crowding evident in other buildings	Fairly good window ven- tilation is possible	Old type fixtures should be replaced	Good	Additional facili- ties are required. Old type fixtures should be replaced as: 1. Merrill Hall has thirty- five beds. Has one water closet. Plumbing seems satisfactory in: a. Edbrook Bldg. b. Willard Bldg. c. Nursery Bldg. d. Campbell Bldg. e. Washington Bldg.	Bubbler type fountain should be replaced in: 1. Infirmary two bubbler type drinking fountain heads. 2. Howe Building One
Ridge Home Train- ing for Mental De- fectives	In need of gener- al repair in- cluding: 1. Flooring 2. Plastering 3. Painting Buildings are comparatively modern design and construct- ion	Fair - Some new equipment needed	Excessive crowd- ing. Need additi- onal housing fac- ilities to relieve congestion and allow segregation according to age, groups, sex and mental classific- ations. (All avail- able facilities should be put to use)	Fairly ade- quate under normal con- ditions. (Congested population at present)	Fairly ade- quate	Satis- factory	Prohibited type of fixtures should be replaced as: Girl's Ward #3 First Floor-Four Basin traps are not vented. Second Floor-Two additional bath tubs are needed. Back vents should be installed on vents.	Bubbler type fountain should be replaced in: 1. Laundry area 2. Some additional units installed in other loc- ations

SANITATION		STATE INSTITUTIONS							
(B) UTILITIES		(STATE HOME FOR DEPENDENT CHILDREN)							
(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)
WATER SUPPLY	SEWAGE DISPOSAL	PLUMBING	HEATING	POWER PLANT	DINING ROOM	KITCHEN	FOOD PREPARATION & HANDLING	FOOD STORAGE	CANNING
Approved - Supply from City of Denver	To City of Denver	Main kitchen waste and supply pipes should be remodeled. Grease traps should be moved to new location to prevent effluent from seeping into root cellar.	Apparently satisfactory. Needs temperature control	Adequate for present needs	Lacks adequate light and ventilation. Some over-crowding. Generally well maintained.	Generally well maintained. Old equipment-some in need of replacements and enlarging. Kitchen could be rearranged for less confusion.	High standard of sanitation is maintained. Resident labor is utilized.	Present ice machine is too small. Refrigeration spaces needed for all products raised on farm. There should be: 1. Quick freeze room for meats. 2. Room for fruits and vegetables. 3. One for dairy products.	Some spoilage, recommend approved equipment and methods.
RIDGE - HOME AND TRAINING SCHOOL FOR MENTAL DEFECTIVES									
Present well supply is uncertain and of a quality detrimental to the power plant and heating system. As a result the heating system has been operating sluggishly; is being maintained only at an excessive cost for repairs, etc.	Present system not adequate or satisfactory and should be remodeled to conform to State Sanitary Laws and Regulations.	Fairly satisfactory. <u>Girls' Ward #1.</u> 1st and 2nd floor water closets are of old style seat action flush, which in under certain conditions might cause a cross connection between bowls and house water supply	Adequate	Adequate for present needs. Capacity is adequate for future expansion.	Capacity not adequate for number of inmates. Equipment old and should be replaced.	Needs additional storage facilities. Some equipment in need of replacement and entire unit in need of painting and remodeling.	Sanitation practices satisfactory. Need supervision of qualified dietitian.	Good	Some spoiled and therefore potentially dangerous canned goods on hand. Recommend approved equipment and methods.

SANITATION		STATE INSTITUTIONS						
(D) DAIRY	(E) SWIMMING POOL	(F) GARBAGE & REFUSE DISPOSAL	(G) RODENT & VERMIN CONTROL	(H) FIRE PREVENT- ION	(I) INDUSTRIAL HYGIENE & SAFETY	(J) RECREATIONAL FACILITIES	(K) GROUNDS	(L) FARM
<p>State Home for Dependent Children. Approx. 80 gal. of milk produced per day.</p> <p>RECOMMENDATIONS:</p> <ol style="list-style-type: none"> 1. That walls and ceilings of dairy barn be painted. 2. Hand washing facilities be installed including: <ol style="list-style-type: none"> (a) Soap and clean towels. 3. Easily cleaned smooth heavy gauge buckets and strainers. 4. New type pasteurization equipment should be provided: <ol style="list-style-type: none"> (a) New pasteurization vat. (b) Recording indicating and air space heater thermometer. (c) Air space heater. (d) Dump vat. (e) Bottling and capping machine. (f) New 1½ inch piping and fittings. (g) New cooler with cover. 	<p>Outdoor pool of fill and draw type utilizing city water. This pool is potentially dangerous. Should be equipped with recirculation filter and chlorinating equipment to conform to turbidity and bacteriological standards of the State Board of Health.</p>	<p>Garbage fed to hogs. Trash is adequately disposed of.</p>	<p>Evidence of rodent which should be eliminated.</p>	<p>Depend upon Municipal Fire Department for protection. Insufficient number of:</p> <ol style="list-style-type: none"> 1. Fire plugs 2. Hoses - as there are a large number of non-fire-proof bldgs. Insufficient escapes and some not properly protected. 	<p>Some minor wood working activity. Machinery should be equipped with necessary safety devices.</p>	<p>Expanded facilities indicated as needed, particularly for age groups.</p>	<p>Satisfactory</p>	<p>Satisfactory.</p>
<p>Ridge Home and Training School. Approx. 90 gal. of milk per day. Dairy barn is in good repair. Small pasteurization plant which is adequate for present population. New 1½ inch sanitary piping and fittings should be installed, present piping in poor repair. Also indicating and air space heater thermometer is needed on the pasteurizing vat and an air space heater should also be installed. New bottle filler and capper should be purchased allowing milk to be served from original container - not five or ten gallon cans which is now the practice. Present milk house needs additional room to accommodate this equipment and utensil storage, as well as washing, rinsing and bactericidal operations. Smooth heavy gauge buckets of a type easily cleaned should replace buckets in bad repair.</p>	<p>None</p>	<p>Garbage fed to hogs and trash is adequately disposed of.</p>	<p>Mouse infestation especially in store rooms. Effective program should be employed for their eradication.</p>	<p>There is an existing shortage of fire plugs and equipment. Institution depends upon Arvada Fire Department for protection.</p>	<p>Minor activity.</p>	<p>Additional facilities of proper type should be provided.</p>	<p>Well maintained.</p>	<p>Well maintained housing facilities should be provided for farm agents.</p>

SANITATION - STATE INSTITUTIONS

(A) BUILDINGS	(1) GENERAL CONDITION	(2) EQUIPMENT	(3) SPACE PER CAPITA	(4) VENTILATION	(5) LIGHTING	(6) SCREENING	(7) TOILET & BATHING	(8) DRINKING FOUNTAINS
Grand Junction State Home and Training School for Mental Def- ectives.	Older buildings should be repaired or razed, such as:- (1) Old dining room building. (2) Kitchen unit. (3) Present auditorium building. (4) Machine Shop. EXPANSION PROPOSED (1) Epileptic Bldg. (2) Addition to pre- sent newer bldg. to relieve con- gestion. (3) Expansion of laundry unit.	Good-modern equipment. Old equipment in old buildings should be re- modeled or re- placed	Segregation of var- ious types is im- possible with pre- sent capacity.	Fairly good in newer build- ings.	Approved in new buildings. Remodeling should be done in old bldgs.	Good	FACILITIES Fairly good- some improve- ments recom- mended in older buildings.	Fairly adequate
Morrison Industrial school for girls	Buildings are old, but are maintained in an immaculate manner. Remodeling or re- placement program is recommended (New school building is only modern build- ing on premises.)	Old but in good repair. Replacement program is recommended.	Not overcrowded but all available space is utilized. New buildings should be studied for post- war expansion	Good to fair considering age of build- ings.	New fixtures should re- place old types	Good	Old equipment should be re- placed Individual toilets and wash basins in each room. (At present girls have pot under bed.) Clara Barton Bldg. Toilet room on 2nd floor should be enlarged in- cluding:- (1) Toilet Bowl (2) One slopsink (3) Three wash basins.	Needs additional approved drink- ing fountains throughout in- stitution.

SANITATION - STATE INSTITUTIONS

(B) UTILITIES (GRAND JUNCTION-STATE HOME AND TRAINING SCHOOL)

(C) DINING ROOM FACILITIES

(1) WATER SUPPLY	(2) SEWAGE DISPOSAL	(3) PLUMBING	(4) HEATING	(5) POWER PLANT	(1) DINING ROOM	(2) KITCHEN	(3)FOOD PREPARATION & HANDLING	(4) FOOD STORAGE	(5) CANNING
City of Grand Junction by means of new line recently laid.	Own disposal plant (Is in need of maintenance personnel.)	Minor and emergency repairs are being made by an inmate (loaned by the State Penitentiary). Major repairs & new constructions are taken care of by a State licensed plumber.	Fairly adequate. Transmission lines in need of remodeling. Should have complete temperature control equipment.	Taxed at present. No surplus for additional building program. General remodeling and repair of transmission lines would give some additional capacity.	Inmates are being fed on the half hour schedule because of lack of capacity. Dining room should be replaced and enlarged. Old hospital building would make a desirable commissary or storage unit.	Fairly good equipment well-maintained but it is of an antiquated style. Not sufficient in size. Present kitchen facilities are too small. A ventilating hood should be installed over soup kettles.	Inmate help used. Food preparation is done efficiently. Needs additional outside employees.	Maintained in a satisfactory manner. Refrigeration capacity should be enlarged. (Ice machine is about sixty years old.) Recommendations: 1. Cold storage units. 2. Quick Freeze 3. Deep Freeze New ice machine	Considerable canning activities. Needs central canning plant. Utilizing proper equipment and methods.
MORRISON (Girls' Industrial School) Well water. Present supply is adequate but supply should be supplemented by well now in possession of Federal Correctional Institute. School has retained life lease on this well.	Good operating condition. Capacity is adequate.	Administration Building:- 1. Waste pipes at sink are worn out. Louise Alcott Building:- 1. Two inch waste pipes for two kitchen sinks are worn out. 2. Main soil pipe line from bath on second floor broken. Ramona Cottage 1. Water closet holes in basement should be permanently sealed. Satisfactory in:- 1. Purcell Cottage 2. Marion Rogers Cottage 3. Frances Willard Cottage 4. Chappel Cottage	Adequate Individual heating systems in each building. Complete temperature control equipment be considered for installation.	None	Sanitation of kitchens and dining rooms, which are located in each cottage, was found to be exceptionally good.	Exceptionally good. Individual kitchen located in each cottage.	Good Sanitary conditions. Food prepared by house officers and inmates.	Additional refrigeration is needed. Individual storage units for each cottage are maintained satisfactorily.	Canning is done in individual cottages. Recommendation that consideration be given to the construction of a central commissary and canning unit, utilizing approved equipment and methods.

SANITATION

STATE INSTITUTIONS

(D) DAIRY	(E) SWIMMING POOL	(F) GARBAGE & REFUSE DISPOSAL	(G) RODENT & VERMIN CONTROL	(H) FIRE PREVENTION	(I) INDUSTRIAL HYGIENE AND SAFETY	(J) RECREATIONAL FACILITIES	(K) GROUNDS	(L) FARM
<u>Grand Junction</u> State Home and Training School for Mental De- fectives. Dairy lacks ne- cessary equipment to conform to State require- ments. New building and equipment needed on new Farm area. This should include: <ol style="list-style-type: none"> 1. New unit dairy barn on new Farm. 2. Milk house including: <ol style="list-style-type: none"> a. Pasteurization equipment. b. Cooler c. Vats d. Refrigeration. 3. Extension of present water system to supply this new farm area by means of an extension of present water system. Also to supply: <ol style="list-style-type: none"> a. Required farm buildings. b. Adequate housing for farm guests. 	None	Garbage fed to hogs and re- fuse adequately disposed of.	Satisfactory	Immediate fire control measures should be taken in buildings. Present fire hydrants should be connected to new distribution lines, inasmuch as present fire line is subject to breakage. Institution dependent on Grand Junction fire department.	Minor activity	Additional recreational facilities should be provided allowing segregation according to mental and physical classifications.	Good, but in need of further landscaping.	Good
<u>Morrison (Girls' Industrial School)</u> Produces 35 to 40 gallons of milk daily. Walls and ceiling of dairy should be painted. Raw milk now being consumed. <u>Recommendations:</u> 1. Two room milk house/erected.	None	2. Complete pasteurization equipment be installed. 3. Hand washing facilities be installed in milk house and milking barn.	4. Heavy gauge type milk buckets and strainers should be provided. 5. All utensils should be stored in milk house.	Fire drills should be held regularly and precaution taken as to locked doors and other means of egress. (New entries are kept behind locked doors in building which is not fire proof). Fire fighting per-	Very little activity	Should have expanded facilities.	Good	Good

SANITATION - STATE INSTITUTIONS

(A) BUILDINGS	(1) GENERAL CONDITION	(2) EQUIPMENT	(3) SPACE PER CAPITA	(4) VENTILATION	(5) LIGHTING	(6) SCREENING	(7) TOILET & BATHING FACILITIES	(8) DRINKING FOUNTAIN
Golden Industrial School for boys.	Buildings are old and are in need of repair. There should be remodeling and replacement program.	Antiquated. Should be repaired and replaced. Mattresses are very old and insanitary.	Excessive crowding in dormitories. Should be relieved by building program.	Open-window was not satisfactory in view of crowded dormitories.	Does not meet with modern standards.	Improvement could be made around dairy barn area and other buildings.	Additional facilities should be furnished in dormitories. Automatic heating units and 100 gal. boiler for hot water should be installed in :- Troop "A" Building " "C" " " "D" " School Building	Bubbler type of fountain should be replaced in:- 1. Tailor Shop 2. Laundry 3. Gymnasium 4. "C" Building 5. Academic Bldg. Additional fountains should be installed.
Buena Vista Older Boys' Reformatory	Most buildings are approximately 50 years of age or over. They should be remodeled or be razed and replaced. Old cell house is in exceptionally poor condition, should be remodeled with exception of walls. Cell block should be replaced with modern unit. Present administration building, the assistant deputy warden's office and the old laundry building should be razed and replaced with new structures. Modern Administration building with facilities for quarantining new inmates should be constructed. Modern bungalows, approximately four, should be furnished for key personnel. Warden's home should be remodeled or replaced. New gymnasium building should be completed (now 40% complete).	Due to past building programs a good amount of approved equipment is on hand. Building and equipping program should be completed.	Not congested at present time. Consideration should be given to post-war needs.	Good in newer dormitory. Poor in old cell building and other old buildings.	Very poor in old cell building and other old buildings.	Improvements needed around kitchen area. Screens at windows, canopy over stove are both needed.	New section is good. Remodeling needed in older section as: 1. Warden's Building. Traps are unvented. Waste pipes are continually stopped up. Numerous leaks. One trap serving more than one fixture. 2. Administration Building. Poor old material. Bad installation. 3. Cell House. Sanitary water closets should be provided in place of hopper type. Also wash basin (lavatory). Sanitary conditions in this building are deplorable. 4. Cell House Annex. Good material, well installed. This building will house hospital, laundry, shoe shop, photostat and finger print room. 5. Laundry, shoe shop and library. This building is to be abandoned and equipment moved to cell house annex. 6. Dormitory. First floor is fair. Second floor has been vacated as unsafe.	Older types should be replaced by modern sanitary Fountains. Some additional units required.

SA TATION - STATE INSTITUTIONS

(B) UTILITIES (GOLDEN - INDUSTRIAL SCHOOL FOR BOYS)

(1) WATER SUPPLY	(2) SEWAGE DISPOSAL	(3) PLUMBING	(4) HEATING	(5) POWER PLANT	(1) DINING ROOM	(2) KITCHEN	(3) FOOD PREPARATION & HANDLING	(4) FOOD STORAGE	(5) CANNING
Well has been under investigation for contamination. Has shown four consecutive years of drouth. Recommended that this supply be held in reserve that new supply be installed or obtained from the City of Golden.	Through a septic tank with effluent going to the Golden sewer lines for disposal. Because Golden does not have an approved disposal system it is recommended that a complete treatment sewage system be constructed for the institution.	Store Room "Wet vent" between toilet room and waste from drinking fountain should be corrected. Electric Shop No vent on trap at sink. Horse Barn Install vents on waste lines to fixtures already in place. Officers' Apts. Install vents to all unvented traps at fixtures. Replace waste pipes to fixtures. Hospital Install on sink in surgery proper floor connections and vent trap. Bakery & Kitchen All waste pipes to sinks and waste pipes to traps should be replaced..Install large basket type of floor drains. Replace galvanized sink with one made of non-corrosive metal. Install new trap and connection to dispose of waste water from refrigerator compressor. Troop "A" Bldg. Install vented trap under urinal. Troop "D" Bldg. Change galvanized urinal. Academic Bldg. Change waste and vent connections to fixtures in toilet room on first floor.	Adequate. Needs temperature control throughout.	Well maintained throughout. Not utilizing valuable equipment which has at some time been purchased.	In need of remodeling and replacement of equipment.	Equipment was not being maintained in a sanitary manner. Walls, ceilings, floors, etc. were not sanitary. Dish washing was being carried on by inmates who were not aware of personal hygiene. Food handlers needed sanitary supervision.	Considerable confusion and lack of supervision. Need services of trained dietitian.	Needs additional space. Present basement storage area should be remodeled and used for storage only.	Present building lacks suitable equipment and facilities for personnel & processing. Approved equipment should be provided and all canning procedures should be under competent supervision.

(BUENA VISTA - STATE REFORM SCHOOL)

New line to Buena Vista water supply. Arkansas River. Recommendation: Construction of an adequate sewage disposal system. permanent structure plumbing should be completely overhauled & reconstructed, plumbing satisfactory in 1. Carage & 2. Storeroom	Institution is discharging raw untreated sewage into the Arkansas River. Recommendation: Construction of an adequate sewage disposal system. permanent structure plumbing should be completely overhauled & reconstructed, plumbing satisfactory in 1. Carage & 2. Storeroom	Adminis. Bldg. New domestic hot water tank (120 gal.) and floor drains are needed. If this building is retained as permanent structure plumbing should be completely overhauled & reconstructed, plumbing satisfactory in 1. Carage & 2. Storeroom	Excessive heat lost in transmission lines. Warden's Home All plumbing & heating should be completely remodeled. Old Cell House Poor installation. Temperature between floors and ceilings varies excessively.	Being operated by a handy man. Piping, distribution, tunnel, house, steam sewerage, electrical conduits & water lines in exceedingly bad shape & should be remodeled. Present plant is overtaxed.	Needs painting and minor remodeling. Good equipment is available.	Recommendations: 1. Vent hoods for ranges. 2. Additional refrigeration. 3. Remodeling and painting.	Fairly satisfactory. Recommendations: 1. Strict sanitary supervision. 2. Specialized groups be trained & utilized. 3. Dietitian be employed.	Present commissary building is outside of compound. Difficult because of distance removed from kitchen. Should be incorporated with in the kitchen area, especially meat handling.	Needs modern canning unit using approved equipment and methods.
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SANITATION - STATE INSTITUTIONS

(D) DAIRY	(E) SWIMMING POOL	(F) GARBAGE & REFUSE DISPOSAL	(G) RODENT AND VERMIN CONTROL	(H) FIRE PREVENTION	(I) INDUSTRIAL HYGIENE & SAFETY	(J) RECREATIONAL FACILITIES	(K) GROUNDS	(L) FARM
<p>Golden</p> <p>Approx. 100 gal. produced daily.</p> <p>Recommendations:-</p> <p>(1) Dairy room and pouring be remodeled to conform to approved standards.</p> <p>(2) New two compartment wash and rinse vat as well as a new aerator unit, milk bucket, strainers, hand washing facilities and lockers. (3) That all milkers wear sanitary outer garments. (4) That washing, rinsing and bactericidal treatment and storage of utensils be done in a room partitioned from processing, cooling and handling operations and milk house. (5) That hand washing facilities be provided, sanitary piping replaced and recording thermometers on pasteurization vat as well as air space thermometers be installed. (6) Cooler with cover, bottling and capping machine in compliance with State Board of Health Standards.</p>	<p>Good shape.</p> <p>Pool operator should be instructed in State regulations.</p>	<p>Trash collection is adequate. Garbage fed to hogs.</p> <p>Recommendation:-</p> <p>(1) Additional garbage containers.</p> <p>(2) Placed in screened in rack above ground adjacent to kitchen.</p>	<p>No particular trouble exists.</p>	<p>Lack of dependable water supply. Forty-five different type of keys in use, dormitories buildings are kept locked at all times.</p> <p>Recommendations:-</p> <p>(1) Standardized locking system.</p> <p>(2) More fire exits and escapes</p> <p>(3) Training of fire fighting personnel.</p> <p>(4) Central location of fire truck.</p> <p>(5) A portable pumping unit.</p>	<p>Needs safety devices to control occupational hazards.</p>	<p>More diversified equipment and facilities.</p>	<p>Fairly good shape.</p>	<p>Recommendations</p> <p>(1) Considerable remodeling.</p> <p>(2) Additional equipment.</p>
<p>Buena Vista</p> <p>Approx. 75 gal. of raw milk per day.</p> <p>Recommendations:-</p> <p>(1) Approved type milk house to replace present unsatisfactory unit.</p> <p>(2) Pasteurization unit.</p> <p>(3) Modern cooling facilities.</p> <p>(4) Bottling and capping equipment.</p> <p>Present dairy barn is satisfactory.</p>	<p>None</p>	<p>Refuse disposed of adequately. Garbage fed to hogs.</p>	<p>Adequate</p>	<p>New water distributing system needs to be completed. Need for additional fire plugs and a program of fire prevention, drills, etc.</p>	<p>Minor activity should be expanded.</p>	<p>Need for enlarging recreational facilities, such as: remodeling of present mess hall building and gymnasium, etc.</p>	<p>Good</p>	<p>Approved</p>

SANITATION

STATE INSTITUTIONS

(A) BUILDINGS	(1) GENERAL CONDITION	(2) EQUIPMENT	(3) SPACE PER CAPITA	(4) VENTILATION	(5) LIGHTING	(6) SCREENING	(7) TOILET & BATH- ING FACILITIES	(8) DRINKING FOUNTAINS
<u>Canon City</u> Penal - for men and women.	Buildings are in good condition with ex- ceptions of: 1. Cell House #2 2. Cell House #3 Post War planning should include: 1. New cell house 2. Administration building. 3. Hospital. 4. Garage.	Generally in excellent con- dition.	Adequate for present popula- tion.	Generally good. Exceptions are Cell House #2 and #3.	Generally good - ex- ceptions are Cell House #2 and #3.	Generally good.	Adequate except Cell House #2 and #3. There is a cross connection of pipes which causes back-pres- sure and syphonage of contents of water closets into drinking water. Plumbing system should be complete- ly remodeled.	Generally good.
<u>PUEBLO</u> State Hospital for the Insane.	Majority of build- ings are new and modern as a result of a past building program. Twelve to fifteen old build- ings remain which should be remodeled or replaced.	Old and in sanitary equipment in: 1. Male kit- chen. 2. Female kit- chen. 3. Old build- ings.	Overcrowding in older buildings. Should be re- mediated by post war expansion program.	Ventilation is not suit- able in old- er wards and kitchens.	Not ample in older struct- ures. Ample in new build- ings.	Generally fair.	Inadequate in older wards, buildings and kitchens. Ade- quate in newer ward buildings. Canning factory lacks ade- quate toilet rooms with new style fixtures.	Approved in newer structures. Not ade- quate in older build- ings and throughout grounds.
<u>COLORADO SPRINGS</u> State School for the Deaf and Blind.	General condition of buildings is good. Some new buildings and some old buildings.	Generally well maintained.	Ample room - no noticeable crow- ding.	Good	Good - ex- cept in older buildings.	Good	Excellent in new- er buildings. Re- modeling or re- placement needed in older buildings.	Good

SANITATION - STATE INSTITUTIONS

(B)

UTILITIES (CANON CITY - PENAL FOR MEN AND WOMEN)

(B) UTILITIES (CANON CITY - PENAL FOR MEN AND WOMEN)					(C) DINING ROOM FACILITIES				
(1) WATER SUPPLY	(2) SEWAGE DISPOSAL	(3) PLUMBING	(4) HEATING	(5) POWER PLANT	(1) DINING ROOM	(2) KITCHEN	(3) FOOD PREP. & HANDLING	(4) FOOD STORAGE	(5) CANNING
Water furnished by wells owned by institution. Present pumping equipment is taxed. Should be enlarged. Emergency auxiliary 6 inch line connected to city supply.	Raw sewage is disposed into the Arkansas River. A sewage disposal plant should be constructed either in conjunction with the City of Canon City or by the penitentiary. Penitentiary farms are polluting Arkansas River in conjunction with the Abbey. Disposal system should be constructed either in common with the Abbey and Canon City or by the penitentiary.	Cell house 2 and 3. Old buildings for females. Recommendations: 1. The plumbing in these buildings should be completely remodeled before they are used again. Reasons: Antiquated fixtures. Back pressure and syphonage. Hospital Bldg. Needs 2,500 ft. of cast iron steam heating radiation.	Generally adequate. Temperature control throughout should be considered.	Taxed at present time. Can't handle future expansion.	Excellent	Excellent amount of cleanliness and efficiency. Butane gas is used for ranges and ovens. Remainder of cooking is done with steam. Dishes are washed with steam.	Good sanitary practices need dietitian on staff.	Somewhat taxed & should be expanded. Store room in need of additional expansion.	All canning should be done by approved equipment and methods.

(PUEBLO)

Approved - City of Pueblo. Well sites are available for irrigation, should be developed.	Approved: City of Pueblo.	Generally in good condition being maintained by three licensed plumbers.	Generally adequate. Consideration should be given to complete temperature control throughout institution.	In process of repair. Two old boilers should be replaced. Lacks 100 % standby equipment. Current facilities now generated at power plant is $\frac{1}{2}$ AC, $\frac{1}{2}$ DC. Plans to convert 100% AC.	Female and male dining rooms. Floors are old patched and in deplorable condition. Lack sufficient floor drains. Garbage room in mens' dining room needs new floor and scullery sink. These rooms should be remodeled or replaced.	Floors should be inlaid in main kitchen with waterproof materials that are slip proof. Sufficient number of floor drains should be installed. Walls, ceilings and equipment should be remodeled or replaced.	Inmate labor not done in a 100% satisfactory manner.	Capacity not adequate. Should be remodeled & enlarged in fairly satisfactory manner.	Some remodeling should be done here. Inmate labor used. Canning done in satisfactory manner.
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(COLORADO SPRINGS)

From Colo. Springs is approved.	City of Colorado Springs approved.	Generally good & well maintained. (State Licensed Plumber is employed).	Adequate. Well maintained. Complete control equipment.	Adequate and well maintained.	Satisfactory manner. Good equipment.	Approved.	General condition is excellent. (Note that school was closed at time of inspection).	Needs additional storage spaces.	Some canning done of fruits & vegetables grown on premises. Stock on hand appeared to be in good condition. Approved equipment and methods should be used.
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SANITATION - STATE INSTITUTIONS

(D) DAIRY	(E) SWIMMING POOL	(F) GARBAGE & REFUSE DISPOSAL	(G) RODENT AND VERMIN CONTROL	(H) FIRE PREVENTION	(I) INDUSTRIAL HYGIENE & SAFETY	(J) RECREATION-AL FACILITIES	(K) GROUNDS	(L) FARM
<p><u>CANON CITY</u> 400 gal. of raw milk a day. Herd has never been Bangs tested. Recommendations: 1. That herd be Bangs tested and reactors segregated from milking herd. 2. That complete pasteurization equipment be installed in compliance with Health Department Standards.</p>	None	Garbage fed to hogs. Refuse satisfactorily disposed of.	Satisfactory	<p>Farm is totally without fire protection. Recommendations: 1. That crew for fire prevention and control work be trained. 2. That fire truck be installed at penitentiary to cover this property and assist municipality in emergency.</p>	Improvements could be made regarding occupational hazards.	Definite lack of facilities. This condition should be considered and corrected.	Excellent	Excellent
<p><u>PUEBLO</u> Dairy is only approved state owned plant. Minor faults were found at time of inspection as: 1. Painting of dairy barn. 2. Lack of hand washing facilities. 3. Teat sterilizing.</p>	None	Garbage fed to hogs and refuse satisfactorily incinerated.	<p>Evidence of rats and insects. Recommendations: 1. Vigorous extermination program centered in older buildings with greatest infestation.</p>	<p>Depend upon Pueblo Fire Department for protection. Distinct fire hazards in older buildings. Generally protected by: 1. Sprinkler system and fire proof construction of new buildings.</p>	Comparatively good conditions. Little occupational work is programmed.	Needs adequate recreational program with necessary facilities.	Generally good	Well managed and conducted.
<p><u>COLORADO SPRINGS</u> 75 gal. of raw milk produced daily. Recommendations: 1. Pasteurization equipment. 2. Approved type of milk house. 3. Cooling bottling and capping equipment. 4. Present dairy barn is satisfactory.</p>	None	Garbage fed to hogs. Trash adequately disposed of.	Adequately controlled at present time.	Adequate protection City of Colorado Springs Fire Department. Fire hazards in old buildings. Need fire drills and fire prevention exercises. More fire fighting equipment.	Various occupational hazards should be studied and necessary control measures maintained.	Specialized forms of recreations should be studied.	Well maintained	Approved.

SANITATION		STATE INSTITUTIONS						
(A) BUILDINGS	(1) GENERAL CONDITIONS	(2) EQUIPMENT	(3) SPACE PER CAPITA	(4) VENTILATION	(5) LIGHTING	(6) SCREENING	(7) TOILET & BATHING FACILITIES	(8) DRINKING FOUNTAIN
<u>DENVER</u>								
Industrial workshop for blind.	Approved new buildings. (Meals are not prepared or consumed on premises; the workers are not housed within building)						Adequate. Are kept in a clean and orderly manner.	Satisfactory type.
<u>HOMELAKE</u>								
State Soldiers and Sailors Home.	Buildings are generally old - being built in 1893-1896. Need for remodeling and replacement program. Need for cottage facilities for key personnel.	Old and worn out. Should be replaced.	Inadequate. Needs building program in view of post-war expansion.	Very poor in older units.	Poor. Old type fixtures should be replaced.	In need of replacing and repair.	Old and outmoded bathrooms should be replaced.	Needs additional number of approved units.

SANITATION - STATE INSTITUTIONS

(B) UTILITIES (INDUSTRIAL WORKSHOP FOR BLIND)

(1) WATER SUPPLY	(2) SEWAGE DISPOSAL	(3) PLUMBING	(4) HEATING	(5) POWER PLANT	(1) DINING ROOM	(2) KITCHEN	(3)FOOD PREPARA- TION & HANDLING	(4) FOOD STORAGE	(5) CANNING
BLIND									
Denver	Denver	Complies with State plumbing code.	Low pressure steam. Stoker - No thermostat. Seems adequate.	None	None	None	None	None	None
HOMELAKE Taxed at present time, not adequate for fire emergencies. Present system should be used for domestic use only. New wells should be developed for irrigation. Present storage tank should be cleaned and better protected.	Institution is without sewage treatment plant. In violation of sanitary laws. Recommendation: 1. That adequate sewage treatment plant be constructed.	In general in poor shape. In need of remodeling or replacing	System is old and not too satisfactory. Should be remodeled and consideration given to complete temperature control.	Present plant is old and in need of considerable repair and remodeling. Being supplemented by construction of new power plant.	Entire structure in need of thorough remodeling or replacing. Generally in poor condition and contains equipment that should be condemned and replaced.	In poor condition; should be remodeled or replaced; including equipment.	Inmate labor used. New livestock slaughtering buildings needed. Accomplishments fairly satisfactory considering conditions.	Not adequate. Additional facilities including meat cooling space required.	Considerable canning activity. Should be done under competent supervision using approved equipment and methods.

SANITATION - STATE INSTITUTIONS

(D) DAIRY	(E) SWIMMING	(F) GARBAGE AND REFUSE DISPOSAL	(G) RODENT AND VERMIN CONTROL	(H) FIRE PREVENTION	(I) INDUSTRIAL HYGIENE AND SAFETY	(J) RECREATIONAL FACILITIES	(K) GROUNDS	(L) FARMS
<u>DENVER</u> Industrial work- shop for the blind.	None	City	Apparently no infestation	Fire-proof	Needs for further study regarding handling of dyes in processing of brooms and of control measures as to broom straw dust and safety measures on machinery.	Residents are not housed on premises.	Well cared for	None
<u>HOMELAKE</u> 75 gals. of raw milk a day. Recommendations: 1. Complete pasteurization equipment be in- stalled. 2. New milk house building be built conven- iently located to milking barn. 3. Dairy barn is in good repair. 4. Milk buckets should be re- placed with smooth heavy gauge buckets of type easily cleaned.	None	Garbage fed to hogs. Trash ade- quately disposed of. Small incin- erator should be provided.	Infestation evident - should be eliminated.	Depend on Monte Vista Fire De- partment for protection. Most buildings are non-fire proof. Real fire haz- ards exist. Too few fire plugs too small in size. Recommend- ations: 1. Install new water distribut- ing system. 2. Install add- itional fire plugs for pro- tection.	Minor activity. Program should be expanded.	Poor. Improve- ments can be made through expanded pro- gram.	Fairly good	Well managed

HOSPITAL SURVEY

NAME OF INSTITUTION	TYPE OF HOSPITAL	DOCTORS' NAMES	NURSES	REGISTERED IN COLO.	PRACTICAL	STAFF				KIND AND HOW OFTEN
						PHYSICAL EXAM.	FOOD HANDLERS EXAM.	CHEST X RAY	LAB. TESTS	
Industrial School for Girls - Morrison. Nine to eighteen years. 150 girls 10 to 21 years of age	Isolation and emergency. Sick girls are removed to Children's, C.G.H. and D.G.H. All have tonsillectomy at Children's.	M. Ethel V. Fraser, M.D. M. Jean Gale, M.D., oculist Fred G. Hunt, dentist. P.T. (Part-time)	Mrs. Martha Umhauer	No.	No	No	No	No	None	
<u>GOLDEN</u> Industrial School for Boys 180 boys - 10 to 16 years of age.	Isolation and emergency	Earl W. Kemble, M.D. Anderson and Crawford-Golden - Dentists. P.T.	Mary E. Shockey	No	Yes	No	No.	No	None	
<u>OLDER BOYS-Correctional</u> <u>BUENA VISTA</u> Reformatory Boys 16 to 25 years 106 boys from 15 to 25 years of age.	None Building for this purpose has not been equipped. Sick boy removed to D.&R.G. Hospital Salida	Howard David Smith, M.D. Salida Dr. Kelley of Salida, Dentist, P.T.	None	No	No	No	No	No	No	
<u>Men-Women-Peral</u> <u>CANON CITY</u> Colo. State Penitentiary, 1054 men about 37 women.	General Hospital 1. Medical 2. Surgical* 3. Criminally insane (20) 4. Tuberculosis *Surgery is done here on women. Are transferred to room in woman's quarters. (Refers to Item 2)	Kon Wyatt, M.D. George Carlton Christie, M.D. Assistant. On 24 hour call. E. J. Burke, D.D.S., P.T.	Male inmate who has aptitude for nursing.	No	Yes	Yes	No	-	Yes	

HOSPITAL SURVEY

ISOLATION
AND OBSERVATION FACILITIES

PTS. CARED FOR	ADULTS	CHILD- REN 1-16 YEARS	IN- FANTS	AVER- AGE NO. PTS.	PHYSI- CAL EXAM.	CHEST X-RAY	IMMUN. AND VAC.	LAB. TESTS	PERIOD OF ISO- LATION	CORREC- TIVE TRTS.	RE-CHECK ON DE- PARTURE	NO. OF ROOMS	NO. OF ROOMS FOR PTS.	NO. OF BEDS	CAPAC- ITY	ADULTS	CHILD- REN
<u>MORRISON</u>	None	Girls	None	Five	Yes	By State Health Depart- ment. Mobile Unit (1944)	Yes	Yes	10 days to 14 days	Yes	None	6 rooms 2 baths	2 rooms 1 ward	8	Single rooms (2) (Isol)	None	Girls 5 (Observation)
<u>GOLDEN</u>	None	Boys	None	12	Yes	By State Health Depart- ment. Mobile Unit (1944)	Yes	State Health Depart- ment	10 days to 14 days	Limi- ted	None	12 2 baths	6 rooms 2 baths	25	Single room Isol.	None	Boys 12 (Observation)
<u>BUENA VISTA</u>	Boys 16-25 Aver- ages about 117		None	None	Yes	None		State Health Depart- ment	None	Limi- ted	No	Mod- ern Build- ing not Equip- ped					
<u>CANON CITY</u>	40 Cap- acity Crimin- ally in- sane (20) in sep- arate wing)			32 daily	Yes	Yes		State Health Depart- ment	Yes	Yes		6 rooms & wards		40	6 rooms	32 daily	None

Needed
Equipment
or Improvements. HOSPITAL SURVEY

MORRISON

1. Help should have physical examinations.
2. Re-check should be made on departure of girl.
3. Hospital facilities should be enlarged.
4. Fire hazards such as are present in the first floor seclusion quarters for incoming girls should be removed. (All are kept in under lock and key).

GOLDEN

1. Physical examination for help.
2. Repair of linoleum in bath and shower rooms.
3. Isolation period of at least twenty-one days for all new inmates. This period should include adaptability tests and mental tests. Medical and dental examinations, treatments and immunizations.

BUENA VISTA

1. Complete hospital facilities with possible exception of major surgery.
2. R. N. in charge of hospital.
3. Complete physical examinations including wasserman, chest x-ray, laboratory tests on inmates.
4. Corrective treatments.
5. Re-check on departure.
6. Isolation period of at least twenty-one days for all new inmates. This period should include adaptability tests, mental tests, and immunizations. Medical and dental examinations and treatments.

CANON CITY

1. Full time doctor.
2. Full time R. N. service - registered male nurses if possible.

HOSPITAL SURVEY

NAME OF INSTITUTION	TYPE OF HOSPITAL	DOCTOR'S NAME	NURSES	REG. IN COLO.	PRACTICAL	PHYSICAL EXAMINATION	FOOD HAND- LER'S EXAM'S	S T A F F		KIND AND HOW OFTEN
								CHEST X-RAY	LAB. TESTS	
<u>REHABILITATION</u>										
School for the Deaf and Blind. Colorado Springs 200 children - Majority are boys.	Infirmery and Isolation. (Dispensary is maintained here)	J. H. Brown, M.D. J. H. Stine, M.D. D. A. Vanderhoof, M. D. George W. Bancroft, M. D.	Always hire one R. N. One practical.	One	One	No	No	None	None	
<u>REHABILITATION</u>										
Industrial work Shop for Blind Denver 1900 blind in the State. Small percentage served here.	None This workshop is to foster employment opportunities for blind persons.	None	None	None	None					
<u>AGED</u>										
Soldiers and Sailors Home Homelake (Service men of fifty years or more) Approx. 140 people sexes are equally divided.	Hospital (Dispensary and Infirmary) (Patients are removed to Monte Vista Hospital for surgery)	Edwin D. Burkhard, M. D. Resident surgeon; go to dentists in Monte Vista.	Three nurses (eight hour shift)	No	Yes	Yes-nurses and cook. None given employees.	Yes	doubtful	Blood tests	Yearly

HOSPITAL SURVEY PTS. CARED FOR	ADULTS	CHILD- REN 1-16 yrs.	IN- FANTS	NO. OF PATIENTS	PHYSICAL EX. OF PTS.	CHEST X-RAY	IMMUNIZ- ATIONS & VACC.	LAB. TESTS	PERIOD OF IS- OLATION	CORRECT- IVE TREATS.	RE-CHECK ON DEPARTURE	NO. OF ROOMS	NO. OF ROOMS FOR PTS.	NO. OF BEDS	ISOL- ATION FACIL'S	ADULTS	CHILD- REN
Rehabilit- ation School for Deaf & Blind Inmates from school	None	Yes	None	Five	Yes	None	Yes			Yes	None	9 - 4 baths	6 wards	24 30 for con- tag- ious dis- eases	Annex to main hos-	None	All
Rehabili- tation Industrial workshop for blind Denver	All			None													
Aged Soldiers and Sailors Home. Homelake Inmates of Home (Must have served in the Army, Navy or Marines - receiving Honorable Discharge)	All No age limit on men. Women must be fifty unless she comes to care for husband	None	None	9								20	13	35	Single rooms	all	None

HOSPITAL SURVEY

Needed
Equipment
or Improvements

Rehabilitation
School for Deaf
and Blind

Recommendations:-

1. None made.

Rehabilitation
Industrial
Workshop for
Blind
None Noted

1. None made.

Aged
Soldiers &
Sailors Home
Homelake.

1. Linoleum on bedroom floors.
2. A form of bed pan sterilization such
as AeroFlush.

S T A F F

HOSPITAL SURVEY		DOCTORS		REGISTERED	PRACTIC-	PHYSICAL	FOOD	CHEST	LABORATORY	KIND AND
NAME OF INSTITUTION	TYPE OF HOSPITAL	NAME	NURSES	IN COLORADO	AL	EXAM.	HANDLER'S EXAM.	X-RAY	TEST	HOW OFTEN
Home for Dependent Children. 220 Children 133 Male 87 Female Birth to 16 years	Isolation A sick child is sent to Steele's and Children's.	Wiley Jones, M.D. Other staff Drs. on call. George B. Packard M. D. Surgeon Rex Murphy, M.D. Eye-Ear-Nose and Throat Atha Thomas, M.D. Orthopedic Surgeon R. W. Danielson M. D. Ophthalmologist Dentists - Drs. Phillips (3) P.T.(Part-Time)	One Mrs. Grace Babrack	No	Yes	None	None	No	None	None
Ridge - Home and Training School for Mental Defectives. (Idiots-Imbeciles) 325 Inmates About 50% are male	None (Infirmary has 53 beds) A sick child is removed to C.G.H.	Howard A. La-Moure, M.D.	Women attendants	No	Yes	None	None	None	None	None
Grand Junction State Home and Training School for Mental Defectives. 430 Inmates All ages	General 1. Isolation 2. Surgical 3. Medical	B. L. Jefferson, M. D. R. F. Gilmore, D.D.S. P.T.	Mrs. Helen D. Cover, R. N.	Yes	Graduates. Two not licensed to practice nursing in State. Two practicals.	Yes	Yes	None	Yes	Kahn
							Hospital provides surgical and medical care.			

22

Hospital provides surgical and medical care.

HOSPITAL SURVEY PTS. CARED FOR	ADULTS	CHILD- REN 1-16 YRS.	IN- FANTS	NO. OF PATIENTS	PHY- SICAL EX. OF PTS.	CHEST X-RAY	IMMUNIZ- ATION & VAC.	LAB. TESTS	PERIOD OF IS- OLATION	CORRECT- IVE TRTS.	RE-CHECK ON DE- PARTURE	NO. OF ROOMS	NO. OF ROOMS FOR PTS.	NO. OF BEDS	ISOLAT- ION FACIL'S.	ADULTS	CHILD- REN
<u>HOME FOR DEP- ENDENT CHILD- REN</u>																	
1. Incoming children for 10 days. 2. Medical cases. Children are remov- ed to Steele's & Children's if actually ill.	None	5 + daily	25 bas- sinets and cribs separa- te. Bldg. (Nursery) Over- crowded	5 in main hospit- al	No	No	None	Diph- ther- ia cul- ture only.	10 days	Yes - see staff on call.	None	7-2 porch es.	5-4 are wards.	18	One sing- le room. Four wards.	None	All
Children - Mental <u>RIDGE</u>	Yes	About 53 in in- firmary.	None		Yes	No	Yes	Diph- ther- ia cult- ures.	10 to 14 days.	None	None - Single patients room grow is to used in in- firm- ary. Seldom leave.			53	Single room.	Yes	Yes
Children - Mental <u>GRAND JUNCTION</u>	Daily pop- ulat- ion 7/21/44 About 430	34 babies 3 to 7 years.	None		Yes	No	Yes	Yes	10 to 14 days	Yes	Seldom leave	New hospital building fully equipped for surgery. Drug dis- pensary.		29	Private rooms - segregate wards.	Children grow to adult- hood. Seldom leave.	

HOSPITAL SURVEY

INSTITUTION

RECOMMENDATIONS:

State Home
for Dependent
Children.

1. That dispensary be completed.
2. That new well equipped nursery be provided.
3. Physical examinations of hospital and nursery employees including:-
(1) Blood Tests - (2) Lab. Tests and (3) Chest -ray.
4. Physical examinations of children including:-
(1) Immunizations (2) Lab. tests
- 5/ It is recommended that all new admissions ~~be~~^{BE} segregated and that preliminary investigations be made to aid in proper placement of the children. (Twenty-one day segregation period)
6. Re-check on departure.
7. Registered nurse in nursery and isolation hospital.

RIDGE

1. Provide hospital facilities ~~and~~^{on} grounds also professional personnel for the same.
2. Provide for the hiring of sufficient help.
3. Make immediate provisions for the mental defectives now waiting for admissions.
This may be done by use of all available space and an additional building
4. Physical examinations of nurses and help.

Children
Mentally De-
ficient -
Grand
Junction

(None made)

1. (Facilities for the care of babies from 3 years to 7 years has been suggested by Dr. Jefferson).

1. Either at Ridge or Grand Junction provisions should be made on a state wide basis for:
(a) Epileptic children (School)
(b) Epileptic adults (Home)

It is recommended that the two not be housed together.

INSTITUTION	DENTISTS EMPLOYED	DAYS EMPLOYED	DENTAL CLINIC	RUNNING WATER	EQUIP- MENT	NO. OF HAND INSTRUMENTS	INMATE HELP	DENTISTS PAY	EMERGENCY CASES	PRICE OF WORK	AMALGRAM FILLINGS	EXTRACTIONS AND DENTURES	PROPHYLAXIS
Home for Dependent Children - Denver	Three	Saturday morning	Drs. offices	Yes			No	Fee basis		Fee basis			
Home and Training School for Mental Defectives-Ridge	Dentists in Arvada	Used for emergencies only	None		None	None		Fee basis when emergency arises	Arvada for dental care				
Home and Training School for Mental Defectives Grand Junction	One dentist is employed	One-half day once a month	Yes	Yes	Adequate	Apparently adequate	None	\$25 for $\frac{1}{2}$ day. Approximately once a month					
Industrial School for Girls, Morrison		One Sunday per month	Inadequate. Bedrm. is converted into dental clinic	None	Poor			Fee per operation basis		Fee per operation basis			
Industrial School for Boys-Golden	Two	$\frac{1}{2}$ days on alternate	Adequate Fridays	Yes	Adequate	Very few	One assistant dentist	\$5 for $\frac{1}{2}$ da. work	Handled by dentists in private	Expensive dentistry, such as gold bridge work is done at costs. Inmates pay if they are able.			
Older Boys Correctional Buena Vista	One dentist from Salida	$\frac{1}{2}$ day per week	Yes	Yes	Old and obsolete		Yes	\$50 per month	Offices				
Canon City State Penitentiary	1 Dentist from Canon City	Two one half days each week	Yes 1 dental chair	Yes	Adequate Have lab.		Yes-inmates do some wk.	\$100 per month and all lab. work.			Yes	Yes	Yes-when inmates leave
Pueblo, Colo. State Hospital	Two	Full-time	Yes-no lab.	Yes	Adequate	Adequate	No	Salary	Emergency care only				
SCHool for the Deaf and Blind Colo. Springs	None		Adequate		Adequate	Practically None				Parents are billed for work done			At beginning of school year.
Workshop for Blind, Denver	Doubtful if	institutional dental care is necessary - No dental program is in operation											
Soldiers and Sailors Home Homelake	Dentist in Monte Vista	None	None		None	None	None	Inmates pay own bills			Inmates pay own bills		

Institution	Institutional Recommendations:-
Home for Dependent Children	Properly equipped dental clinic should be established in the State Home.
Ridge Home and Training School for Mental Defectives	It is strongly recommended that a properly equipped dental clinic be established at the Home.
Home and Training School for Mental Defectives, Grand Junction	To provide for the inmates of this institution would take at least one-half of a dentist's time.
Industrial School for Girls, Morrison	Properly equipped dental clinic should be established in the Industrial School for Girls.
Industrial School for Boys, Golden	That more hand instruments be made available at clinic.
Buena Vista State Reformatory	That dentist be hired more days per week. That a modern properly equipped dental clinic be installed.
Canon City State Penitentiary	Dental care provided is adequate.
Pueblo, Colorado State Hospital	Three additional full-time dentists with necessary equipment would be needed to provide proper care for all inmates. That a complete dental laboratory be installed.
School for the Deaf and Blind	None made.
Workshop for Blind	Doubtful if institutional dental care is necessary.
Soldiers and Sailors Home	None made.

General Recommendations
Concerning Dental Service in State Institutions

(1). Recommended that one State Department (Colorado Division of Public Health) be responsible for determining general dental policies and that this department provide all institutions with consultation and assistance in developing and supervising the programs for dental health.

(2). Full-time dentists should be employed as far as practicable and where a dentist serves two or more institutions, these institutions should be grouped near enough together so that traveling expenses will be small. For example, the Girls and Boys Industrial Schools, Home for Dependent Children, and Home for Mental Defectives, Ridge, Colorado, might all combine to employ a full time dentist.

(3). A minimum and maximum salary should be established according to the experience and ability of the dentist with provision that where the dentist has not had previous experience that he be started at minimum and have yearly increase, if deserving, until maximum is reached.

(4). A standardized list of equipment and supplies for dental use in state institutions should be used. This would make the ordering of dental supplies much more simple, facilitate the handling of the order and enable the purchasing department to effect a very considerable saving of expense in purchasing dental supplies.

(5). An inventory of equipment and supplies should be made when a dentist enters or leaves the employ of a state institution and from time to time, as seems necessary, and a copy of this inventory kept in the superintendent's or warden's office.

OBSERVATIONS					RECOMMENDATIONS:
GENERAL SITUATION	PHYSICAL PLANT AND EQUIPMENT	PERSONNEL RESPONSIBLE FOR FOOD SERVICE	FOOD SUPPLY	FOOD SERVICE, SELECTION AND VALUE	
220 Children 133 Males Birth to 16 years. Children are in lower age range. They are housed in separate units but eat in a central dining room. Junior and Senior High School students buy lunch at school.	Food service is housed in separate buildings. 1st floor contains: 1. Kitchen 2. Employee's dining room. Dining rooms were clean, attractive and in good order. (a) Linens were used on tables. (b) China of heavy weight. (c) Kitchen was well equipped. Basement used for staple goods and canned products. 3. Serving room. 4. Dishwasher 5. Large dining room.	Trained persons lacking. Menus were planned by cook and women in charge of purchasing. Preparation was supervised by head cook. Purchasing was done under supervision of the superintendent. Three full time cooks. Ten girls helped in kitchen.	Meat, fruit, eggs, butter and bread purchased. Dairy supplied milk. Surplus eggs given by Office of Distribution. Vegetables were raised in the garden. Some vegetables were stored or canned for winter use. 100 gallon of cherries were canned from orchard. 125 - 150 gallons of tomatoes were canned.	Matron serves food at each table. Second helping are available. Food for some children was cooked in main kitchen and carried to the residence. In one residence, children washed own dishes in the lavatory. The diets were very low in green and yellow vegetables, citrus fruits and tomatoes and eggs. They were marginal in "other" fruits and vegetables and meats. Milk was the only protective food served in adequate amounts. Diet was deficient in most essential nutrients. Greatest deficiencies were in Vitamins "A" and "C".	1. That a full - time trained dietitian be employed to take charge of the food service. 2. That dark green or yellow vegetables be included in the diet daily. 3. That citrus fruits, fresh fruits in season or tomatoes appear in the diet daily. 4. That increased emphasis be placed on including eggs in the diet. 5. That sufficient funds be allotted from the general maintenance budget to provide food of the right quality in adequate amounts, particularly during season when fresh garden stuff is not available. 6. That more refrigeration space be provided. 7. That equipment needed for more efficient kitchen operation be obtained as needed. 8. That pressure cookers be provided for canning. 9. That if food is served in nearby buildings provisions are made to keep it hot. 10. That dishes used in service outside dining room be properly washed.

OBSERVATIONS					RECOMMENDATIONS :-
GENERAL SITUATION	PHYSICAL PLANT AND EQUIPMENT	PERSONNEL RESPONSIBLE FOR FOOD SERVICE	FOOD SUPPLY	FOOD SERVICE SELECTION AND VALUE	
325 inmates. Age range is wide - most wards are children. About one half are male. Meals are served family style in two main dining rooms - one for boys, one for girls. A separate dining room is used for employees.	Storerooms and refrigeration is inconveniently arranged in a passage way between dining rooms and kitchen. Food must be carried through the kitchen into storage space and then back again. Dishwasher was in separate room. Equipment: 1. Not arranged for efficient operation. 2. Old steam kettles. 3. Stove was a coal range. 4. Little modern equipment was in evidence.	No trained person was in charge of food service. Assistant to superintendent and the cook were responsible for the planning of the menus and the preparation of the food. Steward does purchasing. Five cooks were employed and the children assisted.	Milk obtained from own dairy herd. Eggs and meat, except pork, most of the fruit and bread were purchased. Some vegetables were supplied by own gardens. No vegetables and fruits were canned. Small quantities of pickles and jam were preserved.	Marked difference was noted between food served the employees and that served the children. Food served to children appeared drab, uninteresting and not well prepared. Lack of color was noticeable. Vegetables appeared to be overcooked. Meat and potato dish was unappetizing. Milk was served to all children. Some children received only bread and milk. Diet was low in green and yellow vegetables and almost totally lacking in tomatoes, raw fruits and vegetables except lettuce. Diets were thus markedly lacking in Vitamins C & A and probably iron. The diet of employees revealed no such deficiencies.	1. That a full-time trained dietitian be employed to take charge of food service. 2. That citrus fruits, tomatoes or raw cabbage be served to the children daily. 3. That more dark green and yellow vegetables be added to the diet of the children. 4. That raw fruits and vegetables in addition to lettuce and the foods named above be served when in season. 5. That the amounts of eggs and meat in diet be increased to the recommended amounts. 6. That rearrangement of the kitchen and storage rooms be made to insure more convenient and efficient operation of the food service. 7. That a regular plan for the replacement of worn out and inefficient equipment and the purchase of new equipment be instituted. 8. That special attention be given to periodic checks of food served, so that diet of children will not continue to be grossly lacking in essential food elements. 9. That recommended methods of food preparation be used in preparing vegetables. 10. That more attention be given to the esthetic aspects of the food served the children. 11. That attention be called to the General Recommendations made and that steps be taken to put them into effect.

NUTRITIONAL SURVEY

HOME FOR MENTAL DEFECTIVES -- GRAND JUNCTION

O B S E R V A T I O N S					R E C O M M E N D A T I O N S
GENERAL SITUATION	PHYSICAL PLANT AND EQUIPMENT	PERSONNEL RESPONS- IBLE FOR FOOD SERVICE	FOOD SUPPLY	FOOD SERVICE SELECTION AND VALUE	
430 people. Range in age is wide. Most of the inmates are children. Sexes are equally divided. Meals are served family style.	Kitchen is on first floor of old building. Good use is made of available space and operation is carried out efficiently. Refrigeration space was small. Basement contained ice plant, cool rooms for milk and fresh vegetables. Basement storage rooms were inconveniently arranged in relation to each other and kitchen above. They were clearly makeshift affairs, making the best possible use of available space.	Excellent woman in charge of kitchen. She has had no formal training in nutrition. 1. Plans menus. 2. Supervises food preparation and canning. 3. Trains kitchen employees and helpers. The superintendent took an active interest in the food problems. Personnel want plant improvements.	Gardens supply part of produce. Some food is stored. Large quantities of tomatoes are canned. Fruit was obtained from local markets and peaches and pears were canned in large quantities. Smaller quantities of other fruits were canned. Own dairy herd supplies milk. Part of eggs and all pork is home produced. Other foods are purchased.	Meals were attractive and appetizing. Every effort was made within the limits of the personnel and facilities available to make the meals nutritious. There was a slight variation in the type of food served to different groups of children. Employees meals were slightly more attractive and substantial than meals served children. The meals served both employees and inmates did not meet recommended standards in some respects. Quantity of green and yellow vegetables was limited and indicated a deficiency of Vitamin A. The meals were slightly low in foods yielding Vitamin C, such as citrus fruit. Meat and eggs were somewhat low.	1. That a new building providing for kitchen, dining room, and adequate food storage be constructed when conditions allow. 2. That the consulting services of a trained dietitian be made available to the institution under its present system of operation. 3. That eventually this institution follow the policy recommended for all state institutions housing children; that a trained dietitian be placed in charge of the food service. 4. That facilities and labor needed to can fruits and vegetables efficiently be made available as soon as possible. 5. That increased emphasis be placed upon the daily inclusion of citrus fruits, green and yellow vegetables and possibly meat and eggs in order that the diet served to the inmates meet standards recommended for an adequate diet.

NUTRITIONAL SURVEY

GIRLS INDUSTRIAL SCHOOL AT MORRISON

OBSERVATIONS					RECOMMENDATIONS:-
GENERAL SITUATION	PHYSICAL PLANT AND EQUIPMENT	PERSONNEL RESPONSIBLE FOR FOOD SERVICE	FOOD SUPPLY	FOOD SERVICE SELECTION AND VALUE	
150 girls ranging in ages from ten to twenty-one. Girls live in large lodges each of which maintains its own kitchen and dining room. The girls learn to plan, prepare, and serve meals by assisting in the kitchen for three months of the year.	Equipment varies from house to house. Most kitchens were large and contained a moderate sized refrigerator and usual types of other equipment. No pressure cookers were available. Kitchens were extremely clean. Dining rooms were neat and tables were attractively set. Room in basement was used for canned goods and other stored products. Requisition system from large storeroom is used.	Cook in each house is responsible for food service. Meals were planned, prepared and served by some of the girls of the house under the cook's direction.	Garden supplies vegetables except potatoes. Some vegetables were canned and stored and some were dried. A pressure cooker was not used to can non-acid vegetables. Spoilage of some canned produce was observed. Milk was supplied by their own dairy. Meat, eggs, butter and cereals were purchased. Some eggs were received from the office of distribution.	Food was served family style. Menus vary from house to house. Amounts of foods, such as meat and eggs, distributed to each house, were approx. the same. Use made of raw foods depend upon the person in charge of each kitchen. Food which appeared on tables was attractive. Comparison of menus with accepted standard menus revealed that adequate amounts of milk, eggs and cereal were served. Liberal amounts of fruits and vegetables were served. Number of dark green or yellow vegetables included were low. Tomatoes or raw cabbage were served only about three times weekly. No citrus fruit appeared in menu. Amount of meat served was somewhat low.	<ol style="list-style-type: none"> 1. That some central supervision of the food service by a trained person be instituted. An experienced home-economics teacher in the school might be given this responsibility. 2. That business-like methods of operation of the food service be adapted. 3. That recommended methods of food preservation be used. 4. That sufficient cold storage space be provided so that perishable foods can be purchased in economical quantities. 5. That provisions be made for the inclusion of adequate amounts of vitamin "A" and "C" in the diet through the use of recommended amounts of: <ol style="list-style-type: none"> (1) Dark green or yellow vegetables. (2) Citrus fruits or tomatoes. 6. That adequate amounts of meat be included in the menus daily. 7. That attention be called to the general Recommendations made and that steps be taken to put them into effect.

NUTRITIONAL SURVEY

STATE INDUSTRIAL SCHOOL FOR BOYS AT GOLDEN

OBSERVATIONS

RECOMMENDATIONS:-

GENERAL SITUATION	PHYSICAL PLANT AND EQUIPMENT	PERSONNEL RESPONSIBLE FOR FOOD SERVICE	FOOD SUPPLY	FOOD SERVICE SELECTION AND VALUE	
<p>Training school for boys from six to sixteen. There were approximately 180 boys from ten to sixteen years of age. Two visits were made. First visit conditions were very unsanitary. Second visit found conditions somewhat improved, but they were still very bad. Observations herein describe second visit.</p> <p>heavy.</p> <p>One side of building contained main kitchen, serving room with mechanical dishwasher and a large bakery. Kitchen was extremely unsanitary. Floors were dirty, garbage was in evidence, garbage cans were sour and flies were numerous. Kitchen door was screened, but flies entered when door was opened. Ample equipment was poorly arranged and in poor condition. Three large refrigerators were in corner, order in these was not up to standards.</p> <p>Serving rooms were large; much space was wasted. Bakery was well arranged, had excellent equipment, but it was not clean or well cared for. Stairs leading to basement, and basement were dirty and strewn with garbage. Equipment in basement was dirty and uncared for and cannery had no screens. Food was prepared outside under trees. No provisions for cleanliness of help.</p>	<p>Separate building for food services. Large airy dining room. Table and chairs are old, unsanitary and unsightly. Tile floor is cracked and none too clean. Numerous flies have excess to food. Dishes are cracked and chipped. Some were not clean. Silverware is bent, broken and dirty. Dented, pitted aluminum ware of inappropriate size is used for serving some foods. Mugs chipped, without handles, and extra</p>	<p>Former dining room manager was acting as cook and kitchen supervisor. She plans menus. Superintendent directs purchasing in cooperation with State Purchasing Agent. Baker and dining room stewardess were employed. Eight boys assist in kitchen, twelve to fourteen in the dining room.</p>	<p>Milk was supplied by own dairy herd. Some butter was made at school. A garden supplied potatoes and other vegetables. Cherries and apples are grown. Meat, except for some pork, eggs and staple products, were purchased. Cabbage was made into kraut. Home grown vegetables and cherries were canned in the cannery. Many of these products spoiled. The supply of home canned and stored vegetables did not carry over until the next season. Bread is home-made. 80 Pound and a-half loaves are used daily. Part of the bread was whole-wheat.</p>	<p>Food was served cafeteria style. Most of the food was served with the fingers. Salt on the table was from an open saucer, left on table from one meal to the next. No utensil used for serving, children dipped in fingers or food. If tabulation of foods served for four days, according to the minimum menu, standards showed that the menu was lacking in some respects. Butter was served three times a week only. Dark green and yellow vegetables were served infrequently. Diets were low in eggs. Amounts of citrus fruit and tomato did not meet recommendations. Second servings were not allowed except on milk. Cook reported appetites were poor. She gave racial food habits as partial explanation. Prevailing conditions probably true cause of poor appetites.</p>	<ol style="list-style-type: none"> 1. That simple measures of cleanliness be instituted and scrupulously followed. 2. That a Full-time, trained dietitian be employed. 3. That a plan for the replacement of worn-out equipment be made, and that replacement be planned as rapidly as possible. 4. That butter or enriched fat be served at least twice a day. 5. That dark green or yellow vegetables be served daily. 6. That special planning be made for the inclusion of other food groups, such as citrus fruits, tomatoes, raw cabbage and eggs, which are apt to be low in the diet. 7. That a hot appetizing main dish be served as a basis of the evening meal. 8. That food be prepared and cooked the shortest time possible before serving. 9. That the cannery be made sanitary, useful and efficient. 10. That another cook be hired. 11. That plans be made for the purchase of a stainless steel steam table for the service of the food. 12. That attention be called to the General Recommendations made and that steps be taken to put them into effect.

NUTRITIONAL SURVEY

COLORADO STATE REFORMATORY AT BUENA VISTA

OBSERVATIONS

RECOMMENDATIONS:-

GENERAL SITUATION	PHYSICAL PLANT AND EQUIPMENT	PERSONNEL RESPONSIBLE FOR FOOD SERVICE	FOOD SUPPLY	FOOD SERVICE SELECTION AND VALUE	
Houses 106 boys from fifteen to twenty-five years of age. Boys serve an indefinite sentence which amounts to nine months. Many of them enter in poor nutritional condition as a result of delay in local jails.	Stainless steel tables, benches, and stainless steel serving tables were in use. Tables were thoroughly cleaned and scrubbed after each meal in a very efficient manner. Doors were not screened. Spoons and heavy china were used. Knives and forks and stainless steel sectional trays were to be ordered. Off the dining room was a large kitchen with relatively old equipment. The supply of steam jacketed kettles was inadequate. Refrigeration was limited to a small ice refrigerator. Milk was kept in a cold water jacketed kettle. Small bakery was in room off kitchen. A large refrigerator for meats was located in a separate building. Staples and canned	Steward planned menus and supervised food preparation. He was only full-time employee in the kitchen. 8 to 11 inmates work in kitchen. Steward was making a conscientious effort to raise the food standards. He had no information as to foods available from store-room or garden. Steps were being taken to correct this situation. (cont'd from Col. 2) foods are stored here. Root cellar does not keep fresh vegetables well.	Milk was supplied from own dairy herd. Vegetables were raised in the garden. Some lettuce was stored. Little cabbage and no tomatoes were grown due to existing altitude. Meats and eggs were mainly home produced. Fruit is sometimes obtained from cannery at Canon City or by truck from the West. Beets were pickled and some other foods were canned in small amounts. Beans were being canned in borrowed pressure cooker, but only small quantities could be handled.	Food was served cafeteria style. Food was cooked too far in advance. An analysis of the menus for a week according to minimum menu standards showed that citrus fruits, raw cabbage and tomatoes except in mixtures were almost completely absent from the diet. Few dark green and yellow vegetables were served. Quantities of meat served were too small. Butter and enriched fats were present in diet only once a week. Approx. 2,000 lbs. of milk per month were used. This amount is too low if each boy consumes recommended amounts. Meals were low in protective food groups.	<ol style="list-style-type: none"> 1. That provisions be made for inclusion of Vitamin C in the meals served. (Citrus fruits, tomatoes both canned and fresh should be served. 2. More dark green and yellow vegetables should be included in diet. These foods provide Vitamin A. 3. That more butter or enriched fat and meat be included in diet. 4. That long holding periods for cooked foods be avoided. 5. That provisions be made for more refrigeration space in the kitchen. 6. That adequate equipment for canning be provided. 7. That adequate provisions for storage of vegetables be provided. 8. That provisions be made for the purchase of new small equipment and the replacement of worn-out equipment.

NUTRITIONAL SURVEY

STATE PENITENTIARY AT CANON CITY

O B S E R V A T I O N S					R E C O M M E N D A T I O N S:
GENERAL SITUATION	PHYSICAL PLANT AND EQUIPMENT	PERSONNEL RESPONSIBLE FOR FOOD SERVICE	FOOD SUPPLY	FOOD SERVICE SELECTION AND VALUE	
Inmates include about 1054 men and 37 women. The food service from the main kitchen which feeds men was observed.	Large dining room with two double units for cafeteria service in the center is used for feeding male prisoners. Separate dining rooms for women, also for inmates who work on farm. Worn aluminum plates, bowls and silverware were used. many aluminum bowls were dented and pitted. A series of rooms housing equipment for cooking, baking, dish washing and vegetable preparation joins the dining room. Kitchen is fairly well equipped. It lacks refrigeration space for meats and left-overs. Storehouse containing meat, cereals and canned goods is located some distance from the kitchen. Cannery was not observed.	A steward and his assistant were the only full-time help. Twenty inmates assisted. Steward was responsible for menus and supervision of kitchen. Steward, storekeeper and warden cooperated on the buying	Garden and orchard supplied vegetables and fruits. Some are canned at institution. Own dairy herd supplies milk. Cereals and other staples were purchased. Bread was baked at institution. Beef was slaughtered there.	Five of the eight essential food groups were low according to accepted standards. Menus seemed to be completely lacking in eggs. Large quantity of beans consumed would supplement nutrients to some extent. No citrus fruits appeared on menu. Amounts of tomatoes served were very small. Thus vitamin C was lacking. Green and yellow vegetables were served only half as frequently as recommended, which indicates a lack of vitamin A. Milk was slightly low. Butter or enriched fat was served infrequently.	<ol style="list-style-type: none"> 1. That a qualified trained dietitian be placed in charge of the food service. 2. That a year around adequate diet be provided and thus eliminate the deficiencies of food nutrients apparent in the present diet. 3. That some refrigeration space other than that now available for dairy products be provided in the kitchen. 4. That some plan for the replacement of worn out equipment be followed.

O B S E R V A T I O N S

R E C O M M E N D A T I O N S:

GENERAL SITUATION	PHYSICAL PLANT AND EQUIPMENT	PERSONNEL RESPONSIBLE FOR FOOD SERVICE	FOOD SUPPLY	FOOD SERVICE SELECTION AND VALUE	
Serves 4,500 adult patients of both sexes. These patients are housed and fed in separate units scattered over a wide area.	<p>Nine Kitchens and twenty-nine dining rooms with all types of food services are housed in buildings built in various years.</p> <p>Kitchens and dining rooms in buildings built during last six years are modern in arrangement and contain up-to-date mechanical equipment. New food service is fitted with cafeteria style service:</p> <ul style="list-style-type: none"> (1) Saves Labor (2) Saves Time (3) Saves Food <p>One new main large kitchen serves a number of dining rooms in other bldg. by means of a train of electrically heated units from which food can be directly served.</p> <p>Modern stainless steel equipment was used in the newer kitchens and dining rooms</p> <p>(See report on sanitation and refrigeration)</p>	<p>Supervision by a chief dietitian and six assistant dietitians.</p> <p>Six student dietitians with a college degree in food and nutrition or institutional management also assist in supervising food service as part of their training.</p> <p>Each kitchen is staffed by employed cooks and patient help</p> <p>Business like methods seem to be employed in the operation of the food service.</p> <p>Menus are planned and food is prepared under the directions of the chief dietitian.</p> <p>Superintendent, storekeeper and state purchasing agent closely cooperate in purchasing food.</p> <p>Cannery is not under supervision of the dietitian.</p>	<p>Gardens, dairy herds and chickens provide much of the food supply. A small part of meat supply is home produced.</p> <p>All breads are baked and a small cannery is maintained on the grounds.</p> <p>Other foods are purchased.</p>	<p>Impression was that best possible meals were provided under existing conditions.</p> <p>Meals appeared excellent in nutritive values and appearance. Food was hot, appetizing and served in liberal quantities.</p> <p>Second servings were given except for special items such as butter.</p> <p>Analysis of week's menus showed a slight deficiency in citrus fruits, tomatoes and eggs. Doubtful that diet was usually deficient in eggs.</p> <p>Only institution in state serving liberal amounts of dark green and yellow vegetables.</p>	<ol style="list-style-type: none"> 1. That the hospital continue the excellent food service now in operation. 2. That the general plan for gradual replacement of older kitchens with modern units, such as those in operation in some of the newer buildings, be followed. 3. That provisions be made for the improvement, enlargement or replacement of the diet kitchen as soon as possible. 4. That more citrus fruits be included in the diet particularly during seasons when raw cabbage and tomatoes are not plentiful. 5. That attention be called to the General Recommendations made and that steps be taken to put them into effect.

OBSERVATIONS					RECOMMENDATIONS
GENERAL SITUATION	PHYSICAL PLANT & EQUIPMENT	PERSONNEL RESPONSIBLE FOR FOOD SERVICE	FOOD SUPPLY	FOOD SERVICE SELECTION & VALUE	
<p>A state-supported school, not a custodial institution, which operates only during the school year. There are about 200 children, the majority boys. Pleasant atmosphere prevailed. Premises showed care.</p>	<p>Food services are housed in a well-kept building twenty years old. Large attractive dining room used to serve older boys and girls. Children from 6 to 12 years of age eat in smaller dining room. Small dining room for employees. Linens were used on the tables, each child had cloth napkins and napkin ring. China and silverware utility grade, were clean and in good condition. Large serving rooms off dining rooms containing a dishwasher, warming cabinets for dishes, as well as carts and tables for the service of food. Kitchen and equipment were kept in excellent condition. Refrigerators (4) were located near kitchen, serving room, and outside entrance. Refrigerators were used for milk, meats, vegetables, and leftovers respectively. Orderly and in good condition. Well equipped bakery showed air of efficiency. Storage room for staples, ice plant, vegetable peeler and ice cream freezer were located in rooms in basement; sanitation seemed questionable. No root cellar or building used for vegetables-Buried in pits.</p>	<p>Menus were planned by the matron in cooperation with the superintendent. Matron supervised entire food service. Kitchen staff composed of:</p> <ol style="list-style-type: none"> 1. Cook 2. Second cook. 3. Baker 4. Four full-time employees. <p>Because of difficulty of getting regular help, paid student help was used for:</p> <ol style="list-style-type: none"> 1. Service 2. Dishwashing <p>Part of the training of children is to help clean tables. Purchasing is done by staff in cooperation with the state purchasing agent.</p>	<p>Own dairy herd supplied milk. Butter was purchased from local creamery. Eggs and meat, except for occasional pork, was also purchased. During last two years, garden has supplied variety of fresh vegetables. Supply lasted until first of year. No foods preserved except jam. Bread was baked in own bakery-of high quality. Other foods were purchased.</p>	<p>Family style. Movable food carts bring food into dining room. Second helpings on all but desserts. Children were taught high standards of conduct at meal time. Tabulations of foods served children for a week showed a lack of green and yellow vegetables. This indicates a lack of Vitamin A. Employees were given a few more green and yellow vegetables but their supply was still inadequate. Intake of citrus fruits and tomatoes the main sources of Vitamin C were low. Eggs were limited. All desired milk was served. Butter twice a day. Other vegetables and meats seemed adequate. Light recess lunch served, a commendable feature. Food was being prepared some time before meals.</p>	<ol style="list-style-type: none"> 1. That a full-time trained dietitian be added to staff. 2. That dark green or yellow vegetables be included in the diet daily. 3. That more citrus fruits and tomatoes be included in the diet, especially when fresh fruits are out of season. 4. That the evening meal be improved with respect to nutritive value and appetite appeal. 5. That methods of preparation of foods recommended to prevent undue loss of nutrients be followed, especially in regard to vegetables. 6. That attention be called to the General Recommendations made and that steps be taken to put them into effect.

OBSERVATIONS					RECOMMENDATIONS: --
GENERAL SITUATION	PHYSICAL PLANT AND EQUIPMENT	PERSONNEL RESPONSIBLE FOR FOOD SERVICE	FOOD SUPPLY	FOOD SERVICE SELECTION AND VALUE	
<p>Houses war veterans and the wives and widows of war veterans, forty-eight to seventy-five years old.</p> <p>Approx. 140 people equally divided between sexes, live at institution in barracks or small cottages.</p>	<p>Two dining rooms, and a smaller room for serving employees. All were clean and orderly.</p> <p>No linens were used, table tops were in good condition.</p> <p>China was heavy and in good condition.</p> <p>Kitchen was large and orderly.</p> <p>General appearance and cleanliness was average.</p> <p>(1) Coal range</p> <p>(2) Mechanical dishwasher.</p> <p>(3) A few other mechanical aids.</p> <p>Cooking utensils were old, worn and difficult to keep clean--especially true of baking pans.</p> <p>(See sanitation report on refrigeration).</p> <p>A room containing baking equipment had been used for canning.</p> <p>A large potato cellar and a moderate sized storage cellar for vegetables were available.</p> <p>Store house on grounds contained onions, home-canned products (not in</p>	<p>Commander and the acting Quartermaster, in cooperation with state purchasing agent.</p> <p>Typist, cook, Quartermaster and Commander collaborated in planning menus.</p> <p>Cook was responsible for preparation of food. One assistant cook, one dishwasher and three waitresses were employed.</p> <p>Volunteers helped with vegetable preparation and canning.</p> <p>No one had special training in nutrition.</p>	<p>Seasonal vegetables grown in gardens of Home.</p> <p>Some vegetables are canned by volunteers.</p> <p>Two-thirds of the home canned vegetables spoiled.</p> <p>Cabbage was made into kraut.</p> <p>No fruit except rhubarb was grown.</p> <p>Some of this had been canned and all had spoiled.</p> <p>(Statement was made by Commander).</p> <p>Dairy herd furnished milk. Supply was inadequate at certain times of year. Meat was home produced and slaughtered.</p> <p>Bread and other foods were purchased.</p>	<p>Family style service. Weeks menus were checked according to standards.</p> <p>Diet was low in green and yellow vegetables, tomatoes, citrus fruits, and eggs.</p> <p>Raw fruits and vegetables were served only three times in two weeks.</p> <p>Vegetables were overcooked. Both of above point to deficiencies in Vitamin C.</p> <p>Gravy was used where possible in place of butter. Dark green and yellow vegetables were insufficient. Both of above show deficiency in Vitamin A.</p> <p>Supply of milk was limited during certain seasons of year.</p> <p>Plenty of meat was served.</p>	<ol style="list-style-type: none"> 1. That some competent supervision over food service be instituted. 2. That the food program be planned on a year around basis so that there will not be seasonal shortage in certain foods. 3. That more citrus fruits, tomatoes, and dark green or yellow vegetables be included in the diet. 4. That some temporary provisions be made for the successful canning of needed fruits and vegetables, such as tomatoes, during the war time emergency. 5. That a definite plan for the replacement of old and the purchase of new needed equipment be made. 6. That attention be called to the General Recommendations made and that steps be taken to put them into effect.

SUGGESTED INSTITUTIONAL SANITATION POLICY

As a result of this investigation, it was noted that sanitary conditions of institutions visited ranged from excellent to poor depending upon the administrative system in force, equipment in use, and the type of personnel employed. The sanitation levels of these institutions varied widely and it was evident that a planned program of sanitation was not in effect, either on an inter-institutional or individual institutional basis. This irregularity was due no doubt to a lack of institutional sanitation standards furnished for their guidance as well as failure to designate a person or persons to be responsible for this phase of institutional operation. A majority of individuals consulted with were not cognizant of the available advisory services offered by the Colorado State Board of Health nor were they aware of the necessity of conforming to the State Health laws and regulations as they pertain to sanitation. It was evident that the services of the State Board of Health were not being used except in infrequent or emergency instances.

Conclusions drawn from a study of these reports indicate a definite and critical need for the following seven basic reforms:

1. **SANITARY SUPERVISION.** Formulation of a uniform set of health and sanitation standards utilizing the services of the State Board of Health for the guidance of each and every institution. These standards to be administered or enforced in each institution by a person designated as an institutional sanitation officer. It is further suggested that a competent person be engaged as an over-all director or coordinator of activities of these institutional sanitation officers, this person to be designated as director of institutional sanitation and be directly responsible to and employed by the Colorado State Board of Health. The functions and duties of this organizational unit would be to formulate and establish uniform sanitary programs and standards to govern each and every institution and to be responsible for the enforcement of same. These standards would control and improve the following phases of institutional operation:

- a. Sewage and sewerage systems.
- b. Water supplies.
- c. Dairies.
- d. Food preparation and handling, including canning.
- e. Heating, ventilation and lighting.
- f. Plumbing.
- g. Fire prevention.
- h. Adequacy of housing facilities.
- i. Maintenance inspections of buildings and equipment.
- j. Vermin and rodent control.
- k. Screening.
- l. Mosquito control.
- m. Garbage and trash removal and disposal.
- n. Evaluation and control of occupational hazards.
- c. Routine bacteriological examinations of water, milk and food.
- p. Environmental sanitation of over-all institution.

2. **BUILDING & EQUIPMENT.** An additional condition existing and in need of correction was the continued use of worn out and outmoded equipment and structures that have served their usefulness and should be replaced. Several buildings and pieces of equipment were found to be over fifty

years of age and should be included in a building or replacement program to be inaugurated. In the writer's opinion, buildings or equipment of this vintage are beyond economical repair or remodeling and have deteriorated to the point where they cannot be maintained economically or in a sanitary manner. It is, therefore, urged that a comprehensive building program be considered to modernize all state institutions.

3. MAINTENANCE. A further result of this investigation was that, with the exception of the two largest institutions, there was a critical lack of competently trained or adequately paid maintenance and power plant personnel available for the proper maintenance and repair of sewerage disposal systems, water supplies, plumbing and heating installations, power plants and other mechanical equipment. It was noted by this investigator that a good deal of necessary equipment was not being utilized properly or was rapidly deteriorating due to lack of proper care and consequently was being replaced frequently without regard to cost or good engineering practices.

4. RECORDED ENGINEERING INFORMATION. Considerable difficulty was encountered in gaining information relative to location or capacities of pipes, valves, sewer lines and other related or integral parts of the utility system. This situation was due directly to the absence of engineering plans showing complete and accurate locations of piping, valves, etc., as well as other pertinent and necessary information. This lack of available and recorded engineering data is distinctly poor engineering practice and results in excessive maintenance cost and repair confusion as well as being a potential hazard to the health and safety of the inmates. It is, therefore, suggested that this condition be thoroughly studied and rectified by specialized engineers.

5. SEWAGE DISPOSAL. At the present time there are three state institutions that do not have sewage treatment plants and consequently are adding to the pollution of public water courses in violation of State sanitation laws. These three institutions, namely, the State Penitentiary at Canon City, the State Reformatory at Buena Vista, and the Soldiers and Sailors Home at Monte Vista, should be provided with adequate treatment plants as soon as possible.

6. DAIRIES. There is a real necessity for the revamping or remodeling of institutional dairies to meet with the approved standards of the State Board of Health. Inasmuch as milk borne diseases are on the increase, it is recommended that all dairies with the exception of the State Hospital Dairy at Pueblo, which is in compliance at the present time, be remodeled as necessary and provided throughout with approved modern buildings and equipment including pasteurization. All dairy herds should be accredited for Bangs and Tuberculin test, and all dairies should be under competent supervision.

7. FIRE PREVENTION. There was a condition prevalent throughout all institutions visited as regards fire prevention and control, that is in need of correction. From observations gained, there was neither adequate equipment available nor personnel trained in fire prevention or control work. Inasmuch as there is a considerable number of old non-fireproof buildings throughout the various institutions, it is imperative that action be promptly taken to remedy this situation.

In conclusion, it is the belief of this investigator that the foregoing suggested recommendations or reforms should be carried out in their entirety in order to permanently correct and thereafter maintain, sanitary levels of all state institutions on a par with progressive standards of other states or national associations. Other lesser sanitary violations noted, would automatically be corrected with the adoption of the above.

SUGGESTED INSTITUTIONAL HOSPITAL POLICIES

The study of the hospital and medical facilities and the personnel employed has brought to attention that there has been no satisfactory policy regarding medical and dental care, hospital standards or services rendered.

The following data will help to clarify this statement:-

1. Institutions in which hospital facilities have not been completed (2).
2. Institutions where hospital facilities should be enlarged (1).
3. Institutions where the dispensary should be completed and equipped (1).
4. Institutions where nursery should be rebuilt or enlarged (1).
5. Institutions in need of a full-time doctor (1).
6. Institutions in need of registered nursing services (5).
7. Institutions which lack sufficient help (1).
8. Institutions which never give a physical examination to staff (6).
9. Institutions which never give a physical examination to inmates (2).
10. Institutions not giving corrective treatments to inmates (1).
11. Institutions which have no period of segregation for incoming inmates (3).
12. Institutional hospitals presenting a real fire hazard (1).
13. Institutional hospitals in need of repair work (2).
14. Institutional hospitals in need of equipment (1).
15. Institutions on which no recommendations were made (3).

1. It is obvious from the study that there is a need in the State for a full-time director of mental hygiene. This individual would direct the policies at both the homes and training schools for the mental deficient and help with the placements and classifications of inmates at the correctional institutions at Morrison, Golden and Buena Vista. This person should be employed by the Colorado State Board of Health, and mental health included in the general state-wide public health program.
2. There should be a full-time consulting nutritionist employed by the State Board of Health to assist state institutions in maintaining adequate diets from the standpoint of quality as well as quantity.
3. There should be registered nursing services especially ⁱⁿ institutions charged with the care of children and ⁱⁿ institutions where surgery is performed.
4. A routine observation and separation period of a minimum of twenty-one days should be established and maintained in the penal, correctional and mental institutions as well as the Home for Dependent Children. During this time the wards of the state should be properly classified, examined and immunized.
5. There should be a school for the epileptic children.
6. There should be a home for epileptic adults.
7. Serious consideration should be given to a home for senile adults.

SUGGESTED INSTITUTIONAL DENTAL POLICY:-

The only reason for dental care for inmates of state institutions is because of the relation of oral conditions to the health of such inmates. The policy, then, of the dental division in a state institution should be the removal and prevention of infection and relief from pain. To this end, as soon as possible after an inmate enters the institution he or she should have a thorough dental examination and mouth condition charted on examination form.

A copy of the mouth condition as it relates to the health of the inmate should be submitted to the medical director or superintendent after this examination and from time to time as seems advisable.

This should be followed by appointment at the dental infirmary where the first aim should be the removal of infection by relieving and treating gum disease or irritation, and extracting all diseased teeth, including those badly affected by pyorrhea. The next aim should be the prevention of infection by filling all teeth having cavities including the small pit and fissure cavities where a fine explorer sticks at all. Patients should be instructed as to care of mouth to assist in keeping it free from infection when intelligent enough for them to do so. See that attendants carry out a daily mouth hygiene program for patients.

Amalgam should be used in all posterior teeth where possible. If questionable, use cement lining or fill temporarily with eugenol and zinc oxide. Where amalgam is not practicable in posterior teeth, cement should be used. In anterior teeth, cement or synthetic enamel are indicated. All deep cavities should receive a cement base or cavity lining and all cavities be sterilized with phenol, alcohol, silver deposit or metaphen as indicated before filling and kept dry with cotton rolls or rubber dam while filling.

Gold work and bridge work should not be provided. Root treatment, pulp removal and root canal fillings should not be used except under most favorable conditions in the six anterior teeth only. Pulp removal in these cases should be accomplished by infiltration anesthesia. For all posterior teeth which cannot be filled without devitalization or root treatment, extraction is indicated.

In case all teeth are extracted or some restoration is necessary, full or partial plates should be used. Even a single anterior tooth can be replaced satisfactorily by a small plate where necessary.

All inmates should be re-examined at least once a year.

The above dentistry is necessary from the standpoint of health and as such the state owes it to its inmates of institutions, and it is good economy for the state in maintaining the health of such inmates. No additional work should be permitted by the institution dentist and the inmate or his relatives or friends should not be permitted to pay the institution for work done in the institution. Patients in institutions should be treated with the same consideration that would be given a private patient. Use local anesthetics whenever indicated.

SUGGESTED INSTITUTIONAL DENTAL POLICY (Cont'd)

The above dental procedures are indicated in all institutions, but are particularly urgent where there are children. Mouth infection in children is recognized as a menace to the child's health and education. The removal of all mouth infection should be insisted upon in institutions where there are children, and all measures taken to prevent mouth infection.

In cases where inmates wish gold, porcelain, bridge or other restorations and are able to pay for such services, it should be done by private dentists outside and then only at the discretion of the superintendent or warden and through his arrangement. This is outside of the field of institutional dental service.

The institution dentist should not be expected to render any dental service while in the clinic to the employed staff of the institution except consultation and emergency treatment or extraction for the relief of pain, and no fee should be charged for this service.

Six hours of actual dental work at the chair is a reasonable day's work for the institution dentist.

GENERAL RECOMMENDATIONS REGARDING NUTRITION.

- I. That the State Board of Health employ a full-time nutritionist who will serve as a consultant to the state institutions, public health and other agencies.

Since the size and nature of some of the state institutions does not warrant the employment of a full-time dietitian the hiring of a state consulting nutritionist would help solve the problem of food service in these institutions.

- II. That the larger institutions in the State and those housing children employ full-time qualified dietitians.

There is a great need for assistance in planning meals suitable for maintaining optimum health, and in preparation of food to retain its original nutrients. Assistance is needed in the execution of mechanics, such as large quantity buying, food conservation, food service, and arrangement, care and purchase of equipment necessary to secure the service of appetizing food with the most efficient use of time, labor, and money.

Dietitians more than ~~save~~ their salaries for institutions because they introduce more efficient operation, and thereby cut down food waste and labor costs and save equipment. Most important would be the more intangible but none the less real gain in health of the state wards.

- III. That there be forehanded planning of the food supply for each year directed toward maintaining an adequate diet for the personnel.
- IV. That the diet of each institution be such that adequate amounts of all essential foods be served.
- V. That each institution, periodically, check its diet against known food standards.
- VI. That each institution be supplied with some food plan, such as a ration allowance, so that well-balanced diets can be provided even with inexperienced kitchen personnel.
- VII. That the responsibility for the entire coordinated food service be definitely assigned.
- VIII. That every effort be made to have the food served to both inmates and employees meet minimum standards for adequate nutrition.
- IX. That the personnel of each institution be made aware of the fact that good nutrition is essential to good health, and that they learn to recognize the constituents of a good diet.
- X. That the personnel of each institutional kitchen be made aware of and practice modern methods of food preparation that minimize the destruction of food value.
- XI. That the supervisory personnel be led to realize that a nutritious diet is not necessarily an expensive diet.
- XII. That serious consideration be given to the inclusion of a separate allotment for food in the budget.
- XIII. That the general recommendations and specific recommendations for each institution be put into effect as soon as possible.



